15

CHAPTER FIFTEEN

Social Psychology

IN 1999, 16 MEN AND WOMEN VOLUNTEERED for one of the most unusual psychology experiments ever conducted. They agreed to leave their homes, their jobs, their families and friends and to be flown to an uninhabited island off the coast of Borneo, where they would be left to survive on their own. The rules of the experiment were simple: The volunteers would meet every few days and vote to evict one of them, and the last volunteer to remain would receive $1 million. One of the things that made this psychology experiment so unusual was that it was captured on film and broadcast as a national television show called *Survivor*.

The volunteers faced many challenges but none more daunting than each other. Indeed, for 13 weeks, television viewers watched a remarkable interpersonal drama unfold as each volunteer tried to avoid being eliminated by the others. Some volunteers tried to make themselves essential by becoming expert at construction or fishing; others tried to make themselves liked by telling jokes and helping others. In the very first week, coalitions began to form: The two Black volunteers agreed never to vote against each other, and the women agreed to vote against the men. But within a short time, the nature of these alliances began to shift as the volunteers formed new bonds based on personalities, abilities, and romantic attractions rather than ethnicity or gender. Finally, after 3 months of backstabbing, treachery, and mosquito bites, 51 million viewers watched as a 39-year-old corporate trainer named Richard Hatch won the prize by a single vote. ■

MONTY BRINTON / CBS/SHNSPHOTOS/NEWSCOM

Study this chapter carefully. Richard Hatch earned a million dollars by knowing more about social psychology than anyone else on his island.

How did Mr. Hatch manage to be the last survivor? "The first hour on the island I stepped into my strategy and thought, 'I'm going to focus on how to establish an alliance with four people early on.' I spend a lot of time thinking about who people are and why they interact the way they do" (CBS, 2000).

Although you won't be receiving any money for your efforts, in this chapter, you too will spend time thinking about who people are and why they interact the way they do, because when stripped to its bare essentials, the game of life is not unlike the game of *Survivor*. People have many needs—for food and shelter, for love and meaning—and they satisfy those needs by harming each other and helping each other (*social behavior*); by influencing others to think, feel, and act in a particular way (*social influence*); and by figuring out what others are like and why they behave as they do (*social cognition*). As you will see, *social psychology*—the study of the causes and consequences of interpersonal behavior—is critical for understanding how our species has managed to become the ultimate survivor on this island we call Earth.

LEO CULLUM/CARTOONBANK.COM

"Selective breeding has given me an aptitude for the law, but I still love fetching a dead duck out of freezing water."

Social Behavior: Interacting with People

On any given day, most of us interact with a wide variety of people—such as friends, coworkers, family members, and strangers—in a variety of contexts—such as work, school, commerce, and recreation. We confide, conflict, cajole, carouse, criticize, and collaborate. We make dates; we make friends; we make lunch; we make love. We marry each other, we murder each other, and we do just about everything in between. Indeed, social behavior is so diverse and multifaceted that one of the challenges facing the psychologists who wish to understand it is to find a single framework within which all of the many forms of social behavior can be organized and understood.

The theory of evolution by natural selection provides one such framework (Dawkins, 1976). As you learned in Chapter 3, parents pass along some of their genes to their children, who in turn pass along some of *their* genetic material to their children, and so on. It's convenient to think of ourselves as people who happen to have genes inside them, but the evolutionary perspective suggests that we are really vehicles for our genes and that much of our social behavior revolves around the two fundamental tasks of *survival* and *reproduction.*

Survival: The Struggle for Resources

For most animals, survival is a struggle because the resources that life requires—food, water, and shelter—are scarce. Human beings engage in social behaviors that range from hurting each other to helping each other. *Hurting* and *helping* are antonyms, so you might expect them to have little in common. But as you will see, these opposite forms of social behavior are often different solutions to the same problem of scarce resources.

Aggression

The simplest way to solve the problem of scarce resources is to take what you want and smack the stripes off of anyone who tries to stop you. **Aggression** is *behavior whose purpose is to harm another,* and a quick glance at the front page of the newspaper reveals that human beings are as capable of aggression as any other animal and better at it than most (Anderson & Bushman, 2002; Geen, 1998). Sometimes people engage in *premeditated aggression,* which occurs when people consciously decide to use aggression to achieve their goals. The bank robber who threatens a teller wants to be wealthier, the zealot who assassinates a politician wants the government to change its policies, and the fighter pilot who

● How does aggression increase the odds of survival?

aggression Behavior whose purpose is to harm another.

frustration-aggression principle A principle stating that people aggress when their goals are thwarted.

bombs an enemy wants his or her nation to win a war. Each of these individuals has a goal, and each inflicts harm in order to achieve it. However, this harm does not necessarily entail violence: Check forgers and computer hackers can aggress with the stroke of a pen or the stroke of a key. The idea that aggression can be a means to an end is captured by the **frustration-aggression principle**, which suggests that *people aggress when their goals are thwarted* (Berkowitz, 1989; Dollard et al., 1939). The robber's goal of having money is thwarted by the clerk who is standing in front of the cash register, and so the robber aggresses in order to eliminate that obstacle.

AP PHOTO/UNSOLVED MYSTERIES

AP PHOTO/LOUIS LANZANO

Aggression is a way of attaining a goal by harming others. The unknown robber on the left engaged in violence, which is just one of many ways to aggress. When Tyco CEO Dennis Kozlowski (right) defrauded shareholders and stole hundreds of millions of dollars, he aggressed without engaging in violence.

But the newspaper stories that make us shake our heads in disbelief are those that describe *impulsive aggression,* which occurs when people aggress spontaneously and without premeditation. Impulsive aggression is rarely about scarce resources. Studies of violent crime suggest that about a third of all murders begin with a quarrel over a trivial matter (Daly & Wilson, 1988), and the stabbings, beatings, lootings, and shootings that make headlines are not calculated attempts to achieve a goal. Rather, impulsive aggression is a response to an unpleasant internal state, such as frustration, anger, or pain (Berkowitz, 1990). When a laboratory rat is given a painful electric shock, it will attack anything in its cage, including other animals, stuffed dolls, or even tennis balls (Berkowitz, 1993). In the natural environment, the source of an animal's pain is often nearby, such as a predator or a bush full of prickly thorns, and thus impulsive aggression may have evolved as a way to eliminate sources of pain.

Some human aggression is also a response to an unpleasant internal state. For instance, when people feel hot and bothered, they tend to behave aggressively (Anderson, 1989; Anderson, Bushman, & Groom, 1997). The correlation between a city's average daytime temperature and its rate of violent crime is so strong that we can predict with confidence that if the average temperature in the United States were to increase by just 2 degrees Fahrenheit (which is what you should expect from global warming in your lifetime), we would observe about 50,000 more violent crimes per year (**FIGURE 15.1**). What's notable about these instances of impulsive aggression is that they are often directed toward people who are not responsible for the unpleasant state, and as such, they have little chance of alleviating it. Like a shocked rat that attacks the tennis ball in its cage, people who feel frustrated, hurt, or angry often aggress against others simply because they are nearby.

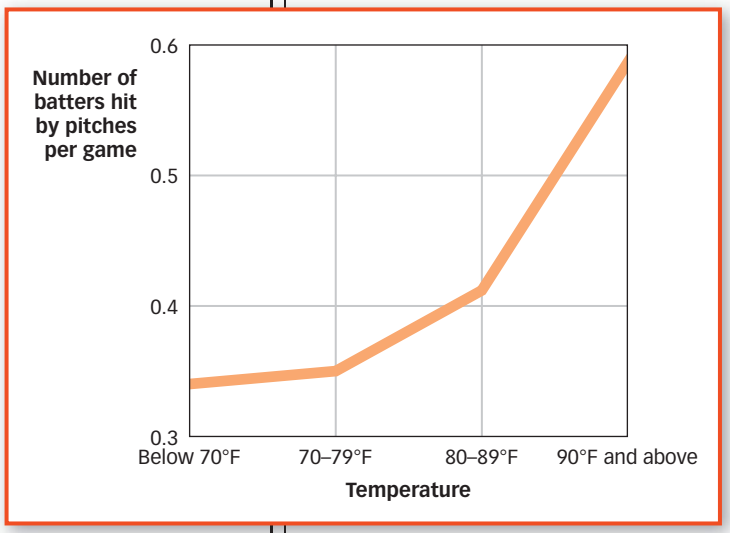


FIGURE 15.1
Temper and Temperature *Professional pitchers have awfully good aim, so when they hit batters with the baseball, it's safe to assume that it wasn't an accident. This figure shows the average number of batters who were hit by pitcher per game during the 1986–1988 major league baseball seasons. As you can see, the temperature on the field was highly correlated with the likelihood of being beaned.*

Are men more aggressive than women?

Not everyone aggresses when they are hot and bothered. So who does, and when and why? The single best predictor of impulsive aggression is gender (Wrangham & Peterson, 1997). Crimes such as assault, battery, and murder are almost exclusively perpetrated by men—and especially by young men—who were responsible for 97% of the same-sex murders in the United States, Britain, and Canada (Archer, 1994). Although most societies encourage males to be more aggressive than females, male aggressiveness is not merely the product of socialization. Many studies show that impulsive aggression is strongly correlated with the presence of testosterone, which is typically higher in men than in women (see Chapter 10), in young men than in older men, and in violent criminals than in nonviolent criminals (Dabbs et al., 1995).

JACK ZIEGLER/CARTOONBANK.COM

"What's amazing to me is that this late in the game we still have to settle our differences with rocks."

When men aggress, it is often in response to perceived challenges or threats—not to their lives or their resources, but to their dominance and their status. Indeed, three quarters of all murders can be classified as "status competitions" or "contests to save face" (Daly & Wilson, 1988). Contrary to popular wisdom, men with unrealistically *high* self-regard—and not *low* self-regard—are most prone to violence because such men are especially likely to perceive others' actions as a challenge to their inflated sense of their own status (Baumeister, Smart, & Boden, 1996).

Although women can be just as aggressive as men, their aggression tends to be more premeditated than impulsive and more likely to be focused on attaining or protecting a resource than on attaining or protecting their status. Women are *much* less likely than men to aggress without provocation or to aggress in ways that cause physical injury, but they are only *slightly* less likely than men to aggress when provoked or to aggress in ways that cause psychological injury (Bettencourt & Miller, 1996; Eagly & Steffen, 1986). Indeed, women may even be *more* likely than men to aggress by causing social harm—for example, by ostracizing others or by spreading malicious rumors about them (Crick & Grotpeter, 1995).

Cooperation

Physical prowess may enable individuals to win conflicts over resources, but when individuals work together, they can often attain more resources for themselves than either could have attained alone. **Cooperation** is *behavior by two or more individuals that leads to mutual benefit* (Deutsch, 1949; Pruitt, 1998), and it is one of our species' greatest achievements—right up there with language, fire, and opposable thumbs (Axelrod, 1984; Axelrod & Hamilton, 1981). Every roadway and supermarket, every television and compact disc, every ballet and surgery is the result of cooperation, and it is difficult to think of an important human achievement that could have occurred without it.

	COOPERATION (B does not confess)	NONCOOPERATION (B confesses)
COOPERATION (A does not confess)	A gets 1 year B gets 1 year	A gets 30 years B gets 0 years
NONCOOPERATION (A confesses)	A gets 0 years B gets 30 years	A gets 10 years B gets 10 years

FIGURE 15.2
The Prisoner's Dilemma Game *The prisoner's dilemma game illustrates the benefits and costs of cooperation. Players A and B receive benefits whose size depends on whether they independently decide to cooperate. Mutual cooperation leads to a relatively moderate benefit to both players, but if only one player cooperates, then the cooperator gets no benefit and the noncooperator gets a large benefit.*

If the benefits of cooperation are plentiful and clear, then why don't people cooperate all the time? The answer is that cooperation is *risky,* as a simple game called *the prisoner's dilemma* illustrates. Imagine that you and your friend have been arrested for bank robbery and are being interrogated separately. The detectives tell you that if you and your friend both confess, you'll each get 10 years in prison, and if you both refuse to confess, you'll each get 1 year in prison. However, if one of you confesses and the other doesn't, then the one who confesses will go free and the one who doesn't confess will be put away for 30 years. What should you do? If you study FIGURE 15.2, you'll see that you and your friend would be wise to cooperate. If you trust your friend and refuse to confess and if your friend trusts you and does the same, then you will both get a light sentence. But if you refuse to confess and your friend betrays you by confessing, then your friend gets to go home and wash his car while you spend the next few decades making license plates.

● What are the risks of cooperating?

The prisoner's dilemma is interesting because it mirrors the risks and benefits of cooperation in everyday life. For example, if everyone pays his or her taxes, then the tax rate stays low and everyone enjoys the benefits of sturdy bridges and first-rate museums. If no one pays taxes, then the bridges fall down and the museums shut their doors. There is clearly a *moderate* benefit to everyone if everyone pays taxes, but there is a *huge* benefit to the few noncooperators who don't pay taxes while everyone else does because they get to use the bridges and enjoy the museums while keeping their entire incomes. This dilemma makes it difficult for people to decide whether to pay taxes and risk being

cooperation Behavior by two or more individuals that leads to mutual benefit.

altruism Behavior that benefits another without benefiting oneself.

reciprocal altruism Behavior that benefits another with the expectation that those benefits will be returned in the future.

chumps or to cheat and risk having the bridges collapse and the museums shut down. If you are like most people, you would be perfectly willing to cooperate in this sort of dilemma but worry that others won't do the same. Indeed, even nonhuman primates object to being cheated by an experimenter. In one study, monkeys were willing to work for a slice of cucumber before—but not after—they saw the experimenter give another monkey a more delicious food for doing less work (Brosnan & DeWaal, 2003).

AP PHOTO/ELLIOTT MINOR

Kevin Hart owns the Gator Motel in Fargo, Georgia, which he runs on an honor system: Guests arrive, stay as long as they like, and leave their payment on the dresser. If just a few people cheated, it would not affect the room rates, but if too many cheated, then prices would have to rise. How would you decide whether to pay or to cheat? Before answering this question, please notice the large dog.

Altruism

When people cooperate, they can realize great benefits. But is cooperation always driven by self-interest? Although human beings and other animals appear to engage in **altruism**, which is *behavior that benefits another without benefiting oneself,* such behavior often benefits the apparent altruist in subtle ways. For example, birds and squirrels give "alarm calls" when they see a predator, which puts them at increased risk of being eaten but allows their fellow birds and squirrels to escape. Ants and bees spend their lives caring for the offspring of the queen rather than bearing offspring of their own. Although such behaviors may appear to be altruistic, they are actually self-interested because individuals who promote the survival of their relatives are promoting the survival of their own genes (Hamilton, 1964).

Not all cooperation takes place between closely related individuals. For example, male baboons will risk injury to help an unrelated baboon win a fight, and monkeys will spend time grooming unrelated monkeys when they could be looking out for themselves. Such behaviors may appear to be instances of noble generosity, but careful studies of primates have revealed that the individuals who perform such favors tend to receive favors in return. **Reciprocal altruism** is *behavior that benefits another with the expectation that those benefits will be returned in the future,* and despite the second word in its name, it isn't very altruistic at all (Trivers, 1972a). Indeed, reciprocal altruism is merely cooperation extended over long periods of time.

So what about people? Like other animals, people are generally willing to contribute to the benefit of others in direct proportion to their degree of relatedness (Burnstein, Crandall, & Kitayama, 1994). Unlike other animals, however, human beings are also willing to provide benefits to complete strangers who will never be able to return the favor (Batson, 2002). As the World Trade Center burned on the morning of September 11, 2001, civilians in sailboats headed *toward* the destruction rather than away from it, initiating the largest waterborne evacuation in the history of the United States. As one observer remarked, "If you're out on the water in a pleasure craft and you see those buildings on fire, in a strictly rational sense you should head to New Jersey. Instead, people went into potential danger and rescued strangers. That's social" (Dreifus, 2003). Indeed, heroism may be uncommon but it is not unheard of, which is to say that human beings are clearly capable of genuine altruism. Some studies even suggest that we tend to underestimate just how altruistic most people really are (Miller & Ratner, 1998).

● **Are human beings genuinely altruistic?**

ROSEMARY CALVERT/GETTY

MARTY KATZ PHOTO

Ground squirrels put themselves in danger when they warn others about predators, but those they warn share their genes, so the behavior is not truly altruistic. In contrast, Christine Karg-Palreiro anonymously donated her kidney to an unrelated individual in 2003 and later remarked, "If I had a spare, I'd do it again." The United Network for Organ Sharing reports that in the past 20 years, more than 100 people have made anonymous organ donations to strangers.

Groups

People benefit from cooperation, but how does cooperation ever get started in the first place? After all, cooperation requires that someone take an initial risk by benefiting an individual and *trusting* that that individual will someday repay the favor. Human beings have developed a remarkably inventive way to

AP PHOTO

AP PHOTO/CHRIS KNIGHT

In 1935, Rubin Stacy was lynched by a mob of masked men after allegedly assaulting a White woman. What effect might wearing masks have on members of a mob?

JOHN PRYKE/REUTERS/LANDOV

Groups can lead people to feel deindividuated and hence less responsible for their actions. What are the chances that any of these individuals would stroll through the mall naked if they were alone?

group A collection of two or more people who believe they have something in common.

prejudice A positive or negative evaluation of another person based on his or her group membership.

discrimination Positive or negative behavior toward another person based on his or her group membership.

deindividuation A phenomenon that occurs when immersion in a group causes people to become less aware of their individual values.

minimize the risk of initial cooperation, and it is called the **group**, which is *a collection of two or more people who believe they have something in common*. Every one of us is a member of many such groups. We refer to the smaller ones as families and teams, and we refer to the larger ones as religions and nations.

Although there are profound differences between such groups, they all seem to have one thing in common: The people in them tend to display **prejudice**, which is *a positive or negative evaluation of another person based on his or her group membership*, and **discrimination**, which is *positive or negative behavior toward another person based on his or her group membership*. Specifically, people tend to be positively prejudiced toward members of their own groups, they tend to discriminate in favor of their own groups, and they tend to expect that their fellow group members will do the same for them in the future (see the Where Do You Stand? box on page 487 at the end of the chapter). Because people favor members of their own groups, group membership allows people to know in advance who is most and least likely to repay their efforts to cooperate, and this knowledge reduces the risks of cooperation.

It doesn't take much to create this kind of favoritism. In one set of studies, participants were shown abstract paintings by two artists and were then divided into two groups based on their preference for one artist or the other (Tajfel, 1970; Tajfel et al., 1971). When participants were subsequently asked to allocate money to other participants, they consistently allocated more money to those in their group (Brewer, 1979). Indeed, participants show positive prejudice and discrimination even when they are randomly assigned to completely meaningless groups such as "Group X" and "Group Y" (Hodson & Sorrentino, 2001; Locksley, Ortiz, & Hepburn, 1980). In other words, just knowing that "I'm one of *us* and not one of *them*" seems sufficient to produce this kind of favoritism.

How does being in a group change an individual's behavior?

Prejudice and discrimination may sound bad, but groups are capable of much worse things, such as riots, lynchings, gang rapes, and stampedes (Milgram & Toch, 1968). If we take death and destruction as our measure, then a group of humans is clearly among the most dangerous of all natural phenomena. Why do people in groups do dreadful things that they would never do alone? This is a particularly compelling mindbug: Law-abiding, rational individuals often behave differently when they start hanging around together in a group. There are at least three reasons for this:

- **Deindividuation** occurs *when immersion in a group causes people to become less aware of their individual values*. We all have urges and impulses that we hold in check. We may want to slap the guy who blasts his music on the elevator, grab the Rolex from the jeweler's window, or plant a kiss on the attractive stranger in the library, but we don't do these things because we have self-control and scruples. Research has shown that people are most likely to exert self-control and adhere to their scruples when their attention is focused on themselves (Wicklund, 1975); when people assemble in groups, their attention is naturally drawn to others and *away* from themselves, and thus they are less likely to abide by their own moral values (Mullen, 1986; Mullen, Chapman, & Peaugh, 1989; Wegner & Schaefer, 1978).
- **Diffusion of responsibility** occurs when *individuals feel diminished responsibility for their actions because they are surrounded by others who are acting the same way*. For example, *social loafing* occurs when people expend less effort when in a group than alone. People applaud less loudly when they are in a large audience than a small one (Latané, Williams, & Harkins, 1979), and athletes exert less effort in team

events than in solo events (Williams et al., 1989). People in groups leave worse tips at restaurants (Freeman et al., 1975), donate less money to charitable causes (Wiesenthal, Austrom, & Silverman, 1983), and are less likely to respond when someone says hello (Jones & Foshay, 1984).

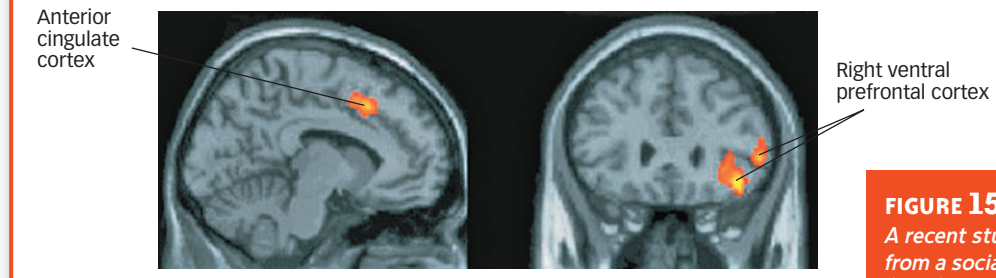
- **Group polarization** is *the tendency for a group's initial leaning to get stronger over time* (Lamm & Myers, 1978). You might expect that mixing people who have one opinion with people who have the opposite opinion would lead a group to have a moderate view, but, in fact, mixing often makes everyone's initial position stronger. In addition, group leaders can be extraordinarily influential despite the fact that they are not necessarily well informed (Hollander, 1964). After a bit of group discussion, an initial opinion of "That's a pretty good idea" becomes "This is the greatest idea we've ever had!"

UNITED ARTISTS/THE KOBAL COLLECTION

In the 1957 film Twelve Angry Men, *a jury is prepared to convict an innocent teenager of murder until one lone juror bravely voices his disagreement and ultimately changes the other jurors' minds. Alas, it is all too rare for group members who hold minority opinions to change or even to try to change the decision of a group.*

The misbehavior of groups is so well documented that we might wonder if people would be better off without them. Probably not. One of the very best predictors of a person's general happiness and life satisfaction is the quality and extent of their social relationships and group memberships (Myers & Diener, 1995), and people who are excluded from groups are invariably anxious, lonely, depressed, and at increased risk for illness and premature death (Cacioppo, Hawkley, & Berntson, 2003; Cohen, 1988; Leary, 1990). Indeed, recent studies reveal that being excluded from a group activates areas of the brain that are normally activated by physical pain (**FIGURE 15.3**; Eisenberger, Lieberman, & Williams, 2003). Belonging is not just a source of psychological and physical well-being but also a source of identity (Tajfel & Turner, 1986), which is why people typically describe themselves by listing the groups of which they are members ("I'm a Canadian, an architect, and a mother of two"). Groups are a way to lower the risks of cooperation and increase the odds of survival, but they are more than that. We are not merely *in* our groups: We *are* our groups.

What do people gain from groups?



COURTESY OF NAOMI EISENBERGER

FIGURE 15.3
A recent study revealed that when people are excluded from a social group, (a) the anterior cingulate cortex (ACC) and (b) the right ventral prefrontal cortex (RVPC) become active. Interestingly, the ACC is commonly associated with the experience of physical pain and the RVPC is commonly associated with pain relief. Apparently, social exclusion causes people to feel pain and to make an effort to diminish it.
Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Science, 302, 290–292.

Reproduction: The Quest for Immortality

Survival matters. But from an evolutionary point of view, survival only matters because it is a prerequisite for reproduction. A vehicle for genes must stay alive in order to build the next vehicle, so it is not surprising that our urge to reproduce—which involves everything from having sex to raising children—is every bit as strong as our urge to stay alive. Indeed, a great deal of our social behavior can be understood in terms of our basic reproductive drive (Buss & Kenrick, 1998).

diffusion of responsibility The tendency for individuals to feel diminished responsibility for their actions when they are surrounded by others who are acting the same way.

group polarization The tendency for a group's initial leaning to get stronger over time.

DR. PAUL ZAHL/PHOTO RESEARCHERS

CREATAS/JUPITER IMAGES

If men could become pregnant, how might their behavior change? Among seahorses, it is the male that carries the young, and not coincidentally, males are more selective than are females.

Selectivity

Survival is the first step on the road to reproduction, but the second step involves finding someone of the opposite sex. You need only look around whatever room you are in to know that not just anyone will do. People *select* their reproductive and sexual partners, and perhaps the most striking fact about this selection is that women are more selective than men (Feingold, 1992a). In one study, an attractive person (who was working for the experimenters) approached an opposite-sex stranger on a college campus and asked one of two questions: "Would you go out tonight?" or "Would you go to bed with me?" About half of the men and women who were approached agreed to go out with the attractive person. Although *none* of the women agreed to go to bed with the person, *three quarters* of the men did (Clark & Hatfield, 1989).

One explanation for this difference is that males and females have different reproductive biology (Buss & Schmitt, 1993; Trivers, 1972b). Men produce billions of sperm in their lifetimes, their ability to conceive a child tomorrow is not inhibited by having conceived one today, and conception has no significant physical costs. In contrast, women produce a small number of eggs in their lifetimes, conception eliminates their ability to conceive again for at least 9 more months, and pregnancy produces physical changes that increase their nutritional requirements and put them at risk of illness and death. Therefore, if a man makes an "evolutionary mistake" by mating with a woman whose genes do not produce healthy offspring or who won't do her part to raise them, he has lost nothing except a few sperm. But if a woman makes the same mistake by mating with a man whose genes do not produce healthy offspring or who won't do his part to raise them, she has lost a precious egg, borne the costs of pregnancy, risked her life in childbirth, and missed at least 9 months of other reproductive opportunities. Women are naturally more selective because reproduction is much more costly for women than for men.

● **What makes women the choosier sex?**

Although reproductive biology makes sex a more expensive proposition for women than for men, it is important to note two things. First, women are more selective than men *on average,* but there is still tremendous variability *among* men and *among* women (Gangestad & Simpson, 2000). We've described the typical reproductive strategies of *most* women and men but certainly not the strategy of any particular woman or man. Second, like biology, social norms can also make sex differentially expensive for women and men and can thereby increase or decrease gender differences in selectivity (Eagly & Wood, 1999). For example, in cultures that glorify promiscuous men as *playboys* and disparage promiscuous women as *sluts,* women are likely to be much more selective than men because the reputational costs of sex are much higher. When cultures lower the costs of sex for women by providing access to effective birth control, by promoting the financial independence of women, or by adopting communal styles of child rearing, women do indeed become less selective (Kasser & Sharma, 1999). Similarly, when sex is expensive for men—for example, when they are choosing a long-term mate for a monogamous relationship rather than a short-term mate for a weekend in Vermont—they can be every bit as selective as women (Kenrick et al., 1990). Our basic biology generally makes sex a more expensive proposition for women than for men, but social forces can exaggerate, equalize, or reverse those costs. The higher the costs, the greater the selectivity.

Attraction

For most of us, there are a very small number of people with whom we are willing to have sex, an even smaller number of people with whom we are willing to have children, and a staggeringly large number of people with whom we are unwilling to have either. So when we meet someone new, how do we decide which of these categories that person belongs in? Many things go into choosing a date, a lover, or a partner for life, but perhaps none is more important than the simple feeling we call *attraction* (Berscheid & Reiss, 1998). Research suggests that attraction is caused by a wide range of factors that

mere exposure effect The tendency for liking to increase with the frequency of exposure.

can be roughly divided into the situational, the physical, and the psychological.

Situational factors. One of the best predictors of any kind of interpersonal relationship is the physical proximity of the people involved (Nahemow & Lawton, 1975). For example, in one study, students who had been randomly assigned to university housing were asked to name their three closest friends; nearly half named their next-door neighbor (Festinger, Schachter, & Back, 1950). Proximity provides not only the opportunity for attraction but also the motivation. People naturally work hard to like those with whom they expect to have social interactions (Darley & Berscheid, 1967). When new neighbors move into the apartment next door, you know your day-to-day existence will be better if you like them than if you detest them, and so you make every effort to like them. In fact, the closer they live, the more effort you make.

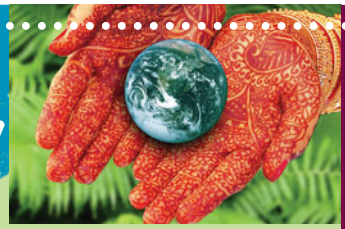
Proximity provides something else as well. Every time we encounter a person, that person becomes a bit more familiar to us, and people—like other animals—generally prefer familiar to novel stimuli. *The tendency for liking to increase with the frequency of exposure* is called the **mere exposure effect** (Bornstein, 1989; Zajonc, 1968). For instance, in some experiments, geometric shapes, faces, or alphabetical characters were flashed on a computer screen so quickly that participants were unaware of having seen them. These participants were then shown some of the "old" stimuli that had been flashed across the screen as well as some "new" stimuli that had not. Although they could not reliably tell which stimuli were old and which were new, participants tended to *like* the old stimuli better than the new ones (Monahan, Murphy, & Zajonc, 2000). In other words, the mere act of being exposed to some things (rather than others) in the environment led to increased liking for those things.

● **Why do people generally like their neighbors?**

Physical factors. Once people are in the same place at the same time, they can begin to learn about each other's personal qualities, and in most cases, the first quality they learn about is the other person's appearance. Research suggests that this influence is stronger than most of us might suspect. In one study, researchers arranged a dance for first-year university students and randomly assigned each student to an opposite-sex partner. Midway through the dance, the students confidentially reported how much they liked their partners, how attractive they thought their partners were, and how much they would like to see their partners again. The researchers measured many of the students' attributes—from their attitudes to their personalities—and they found that the partner's physical appearance was the *only* attribute that influenced the students' feelings of attraction (Walster et al., 1966). Field studies have revealed the same thing. For instance, one study found that a man's height and a woman's weight were among the best predictors of how many responses a personal ad received

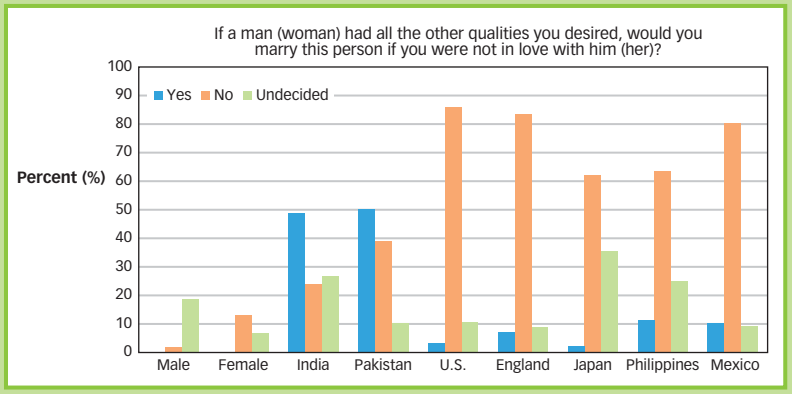
● **What is the role of beauty in attraction?**

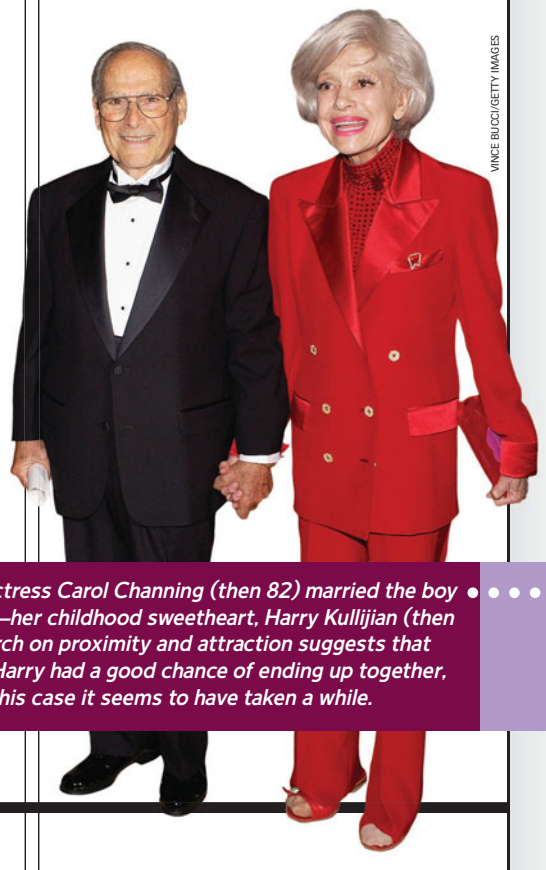
Culture & Community



Does Love = Marriage Around the World?

Would you marry someone you didn't love? When students from 11 different countries were asked this question (Levine et al., 1995), the majority of Pakistani students said yes and the majority of Americans said no. Although students from different cultures disagreed about whether love was necessary to get married, they tended to agree that it was not necessary to stay married. When asked whether a couple who fell out of love should get divorced, about a third of Pakistani and American students said yes. It appears that some ideas about the importance of romantic love are more universal than others.





VINCE BUCCI/GETTY IMAGES

In 2003, actress Carol Channing (then 82) married the boy next door—her childhood sweetheart, Harry Kullijian (then 83). Research on proximity and attraction suggests that Carol and Harry had a good chance of ending up together, though in this case it seems to have taken a while.

COURTESY OF DANIEL GILBERT

The woman pictured here prefers the photograph on the right, but her husband prefers the one on the left. Why? The photograph on the left is printed normally and the one on the right is printed in reverse. Because we tend to see ourselves mostly in the mirror, reverse-printed photographs look to us more like the image we are used to seeing (Mita, Dermer, & Knight, 1977). Because of the mere exposure effect, people tend to favor reverse-printed photographs of themselves.

AP PHOTO/THE HERALD, JENNIFER BUCHANAN

Research on how people misinterpret their arousal may help explain why Brandon Harding proposed marriage (and why Melani Dino said yes) right after they finished skydiving in Snohomish, Washington.

DAVID MCGOUGH/DMI/TIME LIFE PICTURES/GETTY IMAGES

In a commercial for Pantene hair products, model Kelly LeBrock pleaded with viewers, "Don't hate me because I'm beautiful." Research on the power of physical attractiveness suggests that there was not much danger of that happening.

(Lynn & Shurgot, 1984), and another study found that physical attractiveness was the *only* factor that predicted the online dating choices of both women and men (Green, Buchanan, & Heuer, 1984).

Physical beauty is important in just about every interpersonal context (Etcoff, 1999; Langlois et al., 2000). Beautiful people have more friends, more dates, more sex, and more fun than the rest of us do (Curran & Lippold, 1975), and they can even expect to earn 10% more money over the course of their lives (Hamermesh & Biddle, 1994). People tend to believe that beautiful people have superior personal qualities (Dion, Berscheid, & Walster, 1972; Eagly et al., 1991), and in some cases they actually do. For instance, because beautiful people have more friends and more opportunities for social interaction, they tend to have better social skills than do less beautiful people (Feingold, 1992b). Beauty is so powerful that it even influences how mothers treat their own children: Mothers of attractive children are more affectionate and playful with their children compared to mothers of less attractive children (Langlois et al., 1995). It is interesting to note that although men and women are equally influenced by the beauty of their potential partners, men are more likely than women to acknowledge this fact (Feingold, 1990).

So it pays to be beautiful. But what exactly constitutes beauty? Although standards of beauty do indeed vary from person to person and culture to culture, many aspects of physical appearance seem to be universally appreciated or disdained (Cunningham et al., 1995). For example:

- Male bodies are considered most attractive when they approximate an *inverted triangle* (i.e., broad shoulders with a narrow waist and hips), and female bodies are considered most attractive when they approximate an *hourglass* (i.e., broad shoulders and hips with a narrow waist). In fact, the most attractive female body across many cultures seems to be the "perfect hourglass" in which the waist is precisely 70% the size of the hips (Singh, 1993).
- Human faces and human bodies are generally considered more attractive when they are *bilaterally symmetrical*—that is, when the left half is a mirror image of the right (Perrett et al., 1999).
- Characteristics such as large eyes, high eyebrows, and a small chin make people look *immature* or "baby-faced" (Berry & McArthur, 1985). As a general rule, female faces are considered more attractive when they have immature features, but male faces are considered more attractive when they have mature features (Cunningham, Barbee, & Pike, 1990; Zebrowitz & Montepare, 1992).

Is there any rhyme or reason to this list of scenic attractions? The evolutionary perspective suggests that we should be attracted to people who have the *genes* and the propensity for *parental behavior* that will enable our children to grow, prosper, and become parents themselves. In other words, the things we find attractive in others should be reasonably reliable indicators of their genetic qualities and parental tendencies. Are they?

- Testosterone causes male bodies to become "inverted triangles" just as estrogen causes female bodies to become "hourglasses." Men who are high in testosterone tend to be socially dominant and therefore have more resources to devote to their offspring, whereas women who are high in estrogen tend to be especially fertile and potentially have more offspring to make use of those resources.
- Asymmetrical features can be signs of genetic mutation, prenatal exposure to pathogens, or susceptibility to disease (Jones et al., 2001; Thornhill & Gangestad, 1993), so physical symmetry is an indicator of overall health.
- Younger women are generally more fertile than older women, whereas older men generally have more resources than younger men. Thus, a youthful appearance is a signal of a woman's ability to bear children, just as a mature appearance is a signal of a man's ability to raise them. Studies have shown that across a wide variety of human cultures women prefer older men and men prefer younger women (Buss, 1989).

ERICH LESSING/ART RESOURCE, NY

ERICH LESSING/ART RESOURCE, NY

RÉUNION DES MUSÉES NATIONAUX/ART RESOURCE, NY

CARLISLE MUSEUM & ART GALLERY/BRIDGEMAN ART LIBRARY

Artists have been sculpting and painting the Three Graces for thousands of years, and the body types they depict show how standards of beauty change across time. Nonetheless, research suggests that even as the size of the ideal female changes across time, the ideal hip-to-waist ratio remains constant (Singh, 1993).

The evolutionary perspective suggests that the feeling we call *attraction* is simply our genes' way of telling us that we are in the presence of a person who has both the genes and the propensity toward parental behavior to make those genes immortal. It is no coincidence that people in different epochs and people in different cultures appreciate many of the same features in the opposite sex (see the Hot Science box on page 468).

[HOT SCIENCE]

Beautifully Average

If someone described you as "average-looking," you might not be insulted, but odds are that your mother would be furious. Tell Mom to relax. Psychologists have recently learned that when it comes to faces, average-looking is awfully hard to beat.

A face can be beautiful for many reasons, but research shows that faces are considered especially beautiful when their features approximate the average of the human population. In a clever series of studies, researchers digitized the photographs of many college students and then used a computer program to "morph" those faces together (Langlois & Roggman, 1990; Langlois, Roggman, & Musselman, 1994). Specifically, the program averaged the value of each pixel in the digitized photographs, producing a "composite face" that was the average of its components. The composite face and the component faces were then shown to participants, who rated the attractiveness of each. The participants tended to rate the composite as more attractive than the component faces. Interestingly, the more components that went into making a composite, the more attractive that composite was judged to be: The average of 100 faces is more attractive than the average of 10.

Why do people find averageness so attractive? Nature experiments with organisms by generating mutations and seeing which ones work. Some mutations prove so valuable that those who have them out-reproduce those who don't, and soon the entire species has the mutation too. But *most* of nature's experiments are failures, and most mutations are unimportant at best and harmful at worst. The mutations that make some people vulnerable to certain diseases are good examples. One reason why we are attracted to averageness might be that people who look like everyone else are unlikely to carry a mutant gene. If this speculation is true, then our preference for averageness shouldn't be something we have to learn. In fact, research shows that people in a variety of cultures prefer composites to components (Rhodes et al., 2001). Perhaps even more startling is the fact that newborn babies seem to have the same preference (Langlois, Roggman, & Rieser-Danner, 1990; Rubenstein, Kalakanis, & Langlois, 1999).

COURTESY OF JUDITH LANGLOIS.

Most people find the composite faces more attractive when more faces are used to make the composite. From left to right, the faces above are composites of 4 faces, 8 faces, 16 faces, and 32 faces.
Langlois, J. H., & Roggman, L. A. (1990). Psychological Science, 1, 115–121.

Remember that averageness is just one of the many things we find attractive in a face, and it's not always the most important one. Many movie stars whom we would all consider extremely attractive have unusual facial features. Nonetheless, research shows that even if an average face isn't more attractive than every face, it's more attractive than most faces picked at random. In other words, tell Mom not to beat anyone up just yet.

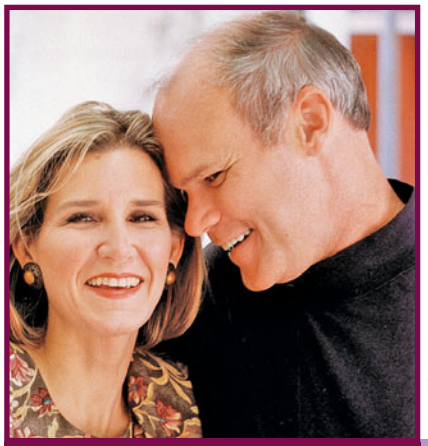
Psychological factors. If attraction is all about big biceps and high cheekbones, then why don't we just skip the small talk and pick our mates from photographs? Physical attributes may determine who draws our attention and quickens our pulse, but after people begin interacting, they quickly go beyond appearances (Cramer, Schaefer, & Reid, 1996; Regan, 1998). People's *inner* qualities—personalities, points of view, attitudes, beliefs, values, ambitions, and abilities—play an important role in determining their sustained interest in each other, and there isn't much mystery about the kinds of inner qualities that people find most attractive. For example, intelligence, sense of humor, sensitivity, and ambition are high on just about everybody's list (Daniel et al., 1985).

● What are the nonphysical attributes that determine attraction?

Although we may be attracted to the person with the quickest wit and the highest IQ, research suggests that we typically interact with people whose standing on these dimensions is roughly *similar* to our own (Byrne, Ervin, & Lamberth, 1970; Byrne & Nelson, 1965; Hatfield & Rapson, 1992; Neimeyer & Mitchell, 1988). We marry people with similar levels of education, religious backgrounds, ethnicities, socioeconomic statuses, and personalities (Botwin, Buss, & Shackelford, 1997; Buss, 1985; Caspi & Herbener, 1990), and some research even suggests that we are unusually likely to marry

someone whose surname starts with the same letter of the alphabet that ours does (Jones et al., 2004).

Why is similarity so attractive? First, it's easy to interact with people who are similar to us because we can instantly agree on a wide range of issues, such as what to eat, where to live, how to raise children, and how to spend our money. Second, when someone shares our attitudes and beliefs, we feel a bit more confident that those attitudes and beliefs are correct (Byrne & Clore, 1970). Indeed, research shows that when the accuracy of a person's attitudes and beliefs is challenged, similarity becomes an even more important determinant of their attraction to others (Greenberg et al., 1990; Hirschberger, Florian, & Mikulincer, 2002). Third, if we like people who share our attitudes and beliefs, then we can reasonably expect them to like us for the same reason—and *being* liked is a powerful source of attraction (Aronson & Worchel, 1966; Backman & Secord, 1959; Condon & Crano, 1988).



AP PHOTO/DENIS PAQUIN

After the 1992 presidential election, Bill Clinton's chief strategist, James Carville, married George H. W. Bush's chief strategist, Mary Matalin. Despite the occasional odd couple, most people are attracted to those with similar attitudes and beliefs. Perhaps this couple's shared passion for politics outweighed their party affiliations.

Relationships

Selecting an attractive mate is the beginning of the reproductive process, but the real work consists of bearing and raising children. For human beings, that work is ordinarily done in the context of committed, long-term, romantic relationships such as a marriage. Only a few animals have relationships of this kind, so why are we among them? The answer is that we're born too soon. Human beings have large heads to house their large brains, and thus a fully developed human infant could not pass through its mother's birth canal. As such, human infants are *born before they are fully developed* and thus need a great deal of care—often more than one parent can provide. If human infants were more like tadpoles—ready at birth to swim, find food, and escape predators—then their parents might not need to form and maintain relationships. But human infants are remarkably helpless creatures that require years of intense care before they can fend for themselves, and so human adults do almost all of their reproducing in the context of committed, long-term relationships. (By the way, some baby birds also require more food than one adult caretaker can provide, and the adults of those species also tend to form long-term relationships.)

What are the survival benefits of long-term relationships?

About 90% of Americans marry, and about 80% of those who divorce marry a second time (Norton, 1987). How do we decide whom to marry? The evolutionary perspective suggests that marriage is all about making and raising babies, but if you're like most people, *you* think that marriage is all about love. So you may be surprised to learn that love-based marriage is a rather recent invention (Brehm, 1992; Fisher, 1993; Hunt, 1959). Throughout history and across cultures, marriage has traditionally served a variety of economic (and decidedly unromantic) functions, ranging from cementing agreements between clans to paying back debts. Ancient Greeks and Romans married, but they considered love a form of madness. Twelfth-century Europeans married but thought of love as a game to be played by knights and ladies of the court (who happened to be

Are people more like cattle or robins? In most ways, we are more like any mammal than we are like any bird, but songbirds and people do share one thing that cattle don't: Their young are helpless at birth and thus require significant parental care. Interestingly, adult robins and adult human beings (but not adult cattle) have enduring relationships. And sing.

PAUL A. SOUDERS/CORBIS

CRAIG LOVELL/CORBIS

LIGHTSCAPES PHOTOGRAPHY, INC./CORBIS

social exchange The hypothesis that people remain in relationships only as long as they perceive a favorable ratio of costs to benefits.

equity A state of affairs in which the cost-benefit ratios of two partners are roughly equal.

married, but not to the knights). Indeed, it wasn't until the 17th century that Westerners began seriously considering the possibility that love might actually be a *reason* to get married.

But is it? Most people who get married expect to stay married, and in this respect, most people are wrong. About 65% of marriages in the United States end in permanent separation or divorce (Castro-Martin & Bumpass, 1989). Although many reasons account for this (Gottman, 1994; Karney & Bradbury, 1995), one is that couples don't always have a clear understanding of what love is. Indeed, a language that uses the same word to describe the deepest forms of intimacy ("I love Emily") and the most shallow forms of satisfaction ("I love ketchup") is bound to confuse the people who speak it. Psychologists distinguish two basic kinds of love—*passionate love,* which is an experience involving feelings of euphoria, intimacy, and intense sexual attraction, and *companionate love*, which is an experience involving affection, trust, and concern for a partner's well-being (Hatfield, 1988; Rubin, 1973; Sternberg, 1986). The ideal romantic relationship gives rise to both types of love, but the speeds, trajectories, and durations of the two experiences are markedly different (**FIGURE 15.4**).

What are the two basic types of love?

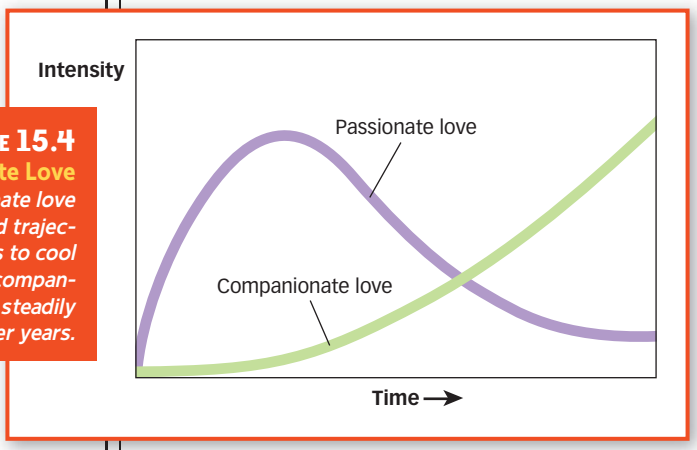
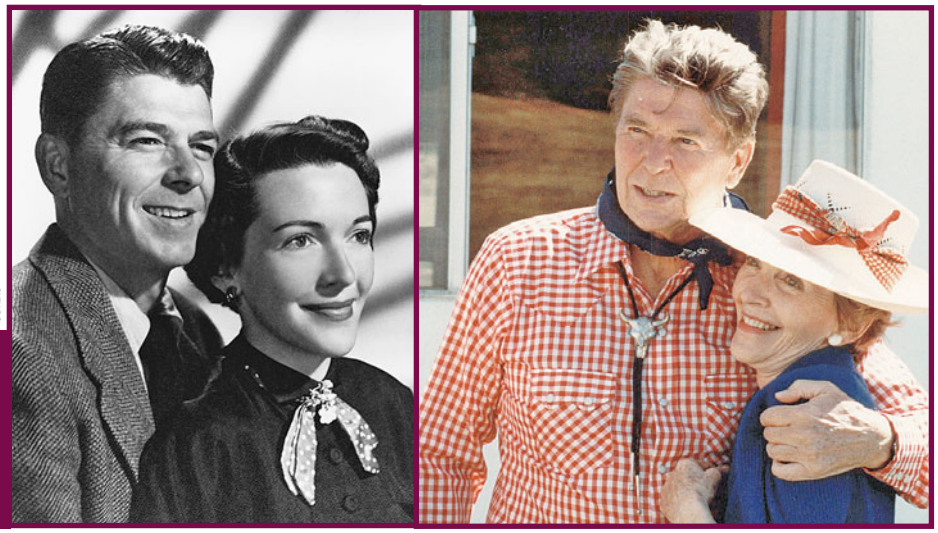


FIGURE 15.4
Passionate and Companionate Love
Companionate and passionate love have different time courses and trajectories. Passionate love begins to cool within just a few months, but companionate love can grow slowly but steadily over years.

Passionate love has a rapid onset, reaches its peak quickly, and begins to diminish within just a few months. Companionate love takes some time to get started, grows slowly, and need never stop. As such, the love we feel early in a relationship is not the same love we feel later. When people marry for passionate love, they may not choose a partner with whom they can easily develop companionate love, and if they don't understand how quickly passionate love cools, they may blame their partners when it does. In many cultures, parents try to keep children from making these mistakes by choosing their marriage partners for them. Some studies suggest that arranged marriages yield greater satisfaction over the long term than do "love matches" (Yelsma & Athappilly, 1988), but other studies suggest just the opposite (Xiaohe & Whyte, 1990). If there *are* any benefits to arranged marriage, they may derive from the



CORBIS MAVLANDOV

As relationships endure, passionate love fades and companionate love grows. Ronald Reagan and Nancy Davis were "crazy" about each other when they met in 1951, but after many decades, what they valued most about their marriage was the fact that they were "best friends."

fact that parents are less likely to pick partners on the basis of passionate love and more likely to pick partners who have a high potential for companionate love (Haidt, 2006).

We've examined some of the factors that draw people into intimate relationships, but what determines when people will be drawn out? **Social exchange** is *the hypothesis that people remain in relationships only as long as they perceive a favorable ratio of costs to benefits* (Homans, 1961; Thibaut & Kelley, 1959). The costs of a relationship include the time, money, and affection that have to be poured into a relationship to make it work—as well as the inability to form a new (and possibly more satisfying) relationship with someone else instead. A relationship that provides an acceptable level of benefits at a reasonable cost would probably be maintained. What is acceptable? Surprisingly, research suggests that most people seek **equity**, which is *a state of affairs in which the cost-benefit ratios of two partners are roughly equal* (Messick & Cook, 1983; Walster, Walster, & Berscheid, 1978). For example, spouses are more distressed when their respective cost-benefit ratios are *different* than when their cost-benefit ratios are *unfavorable*—and this is true even when their cost-benefit ratio is *more* favorable than their partner's (Schafer & Keith, 1980).

"This next one goes out to all those who have ever been in love, then become engaged, gotten married, participated in the tragic deterioration of a relationship, suffered the pains and agonies of a bitter divorce, subjected themselves to the fruitless search for a new partner, and ultimately resigned themselves to remaining single in a world full of irresponsible jerks, noncommittal weirdos, and neurotic misfits."

TOM CHENEY/CARTOONBANK.COM

summary quiz [15.1]

1. The CEO of a major company defrauded shareholders and stole hundreds of millions of dollars. This CEO displayed what kind of behavior?
   a. social loafing
   b. deindividuation
   c. aggression
   d. cognitive dissonance

2. The prisoner's dilemma game illustrates
   a. the hypothesis-confirming bias.
   b. the benefits and costs of cooperation.
   c. the diffusion of responsibility.
   d. group polarization.

3. People in a mob situation are more likely to stray from their own moral values. This is an example of
   a. group polarization.
   b. social loafing.
   c. deindividuation.
   d. bystander effect.

4. Isabel was voted the "Best-Looking Girl" in her high school graduating class. According to the text, Isabel, compared to her peers, also is likely to
   a. have more friends.
   b. have fewer dates, because boys are afraid of being turned down if they ask her out.
   c. engage in less sex, because she is highly selective of her sexual partners.
   d. spend less time in sports because of her many social commitments.

social influence The control of one person's behavior by another.

observational learning Learning that occurs when one person observes another person being rewarded or punished.

norms A customary standard for behavior that is widely shared by members of a culture.

normative influence A phenomenon whereby one person's behavior is influenced by another person's behavior because the latter provides information about what is appropriate.

norm of reciprocity The norm that people should benefit those who have benefited them.

door-in-the-face technique A strategy that uses reciprocating concessions to influence behavior.

Social Influence: Controlling People

Those of us who grew up watching Wonder Woman and Superman cartoons on Saturday mornings have usually thought a bit about which of the standard superpowers we'd most like to have. Superstrength and superspeed have obvious benefits, invisibility and x-ray vision could be interesting as well as lucrative, and there's a lot to be said for flying. But when it comes right down to it, the ability to control other people would probably be more useful. After all, who needs to leap tall buildings, change the course of mighty rivers, or bend steel in their bare hands if you can get someone else to do it for you? The things we want from life—gourmet food, interesting jobs, big houses, fancy cars—can be given to us by others, and the things we want most—loving families, loyal friends, admiring children, appreciative employers—cannot be had in any other way.

Social influence is *the control of one person's behavior by another,* and those who know how to exert such influence can have and be just about anything they please (Cialdini & Trost, 1998). Human beings are not unique in their exercise of—or susceptibility to—social influence. Indeed, influence is the fundamental force that binds the individual members of any social species together, and without it there could be no groups, no cooperation, and no altruism. All social animals wield and yield to social influence, but human beings have raised influence to the status of an art, developing subtle and complex techniques not observed anywhere else in the natural world.

How does social influence work? If you want others to give you their time, money, allegiance, or affection, you'd be wise to consider first what it is *they* want. People have three basic wants that make them susceptible to social influence. First, people have a *hedonic motive,* or a desire to experience pleasure and avoid pain. Second, people have an *approval motive,* or a desire to be accepted and to avoid being rejected. Third, people have an *accuracy motive,* or a desire to believe what is true and to avoid believing what is false. Most forms of social influence appeal to one or more of these motives.

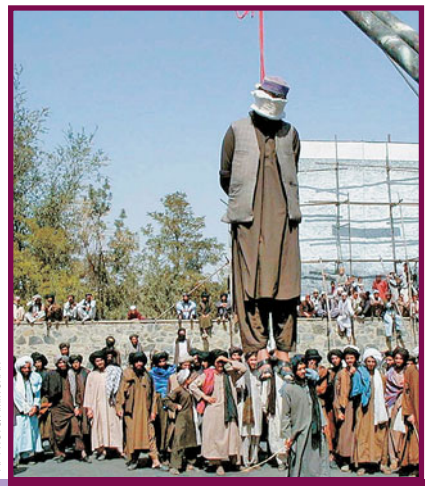
● What makes people susceptible to influence?

The Hedonic Motive: The Power of Pleasure

Pleasure seeking is probably the most fundamental of all motives, and social influence often involves creating situations in which others can achieve more pleasure by doing what we want them to do than by doing something else. Parents, teachers, governments, and businesses constantly try to influence our behavior by offering rewards and threatening punishments. There's nothing mysterious about these influence attempts, and they are often quite effective. When the Republic of Singapore warned its citizens in 1992 that anyone caught chewing gum in public would face a year in prison and a $5,500 fine, the rest of the world seemed either outraged or amused. When all the criticism and chuckling subsided, though, it was hard to ignore the fact that the incidence of felonious gum chewing in Singapore had fallen to an all-time low.

You'll recall from Chapter 5 that even a sea slug will repeat behaviors that are followed by rewards and avoid behaviors that are followed by punishments. Reward and punishment are sometimes *more effective* influences on human than nonhuman behavior because people are especially good at **observational learning,** which is *the process of learning by observing others being rewarded and punished.* In a classic study, children who saw an adult behave aggressively were more likely to behave aggressively themselves if they observed the adult being rewarded rather than punished for this behavior (Bandura, 1965). This method of social influence can be effective even when rewards and punishments are quite subtle. For instance, toddlers in one study watched their mothers being exposed to a rubber snake (Gerull & Rapee, 2002). Those who saw their mothers frown were more likely to avoid the snake than were those who saw their mothers smile.

At the same time, however, social influence attempts that are based on reward and punishment can also backfire because people don't always take kindly to being



AP PHOTO/AMIR SHAH

● *Spectators watch as convicted criminal Meya Gul is hanged in front of a hotel in Kabul, Afghanistan, on September 23, 2000. Whether or not public punishment is ethical, research on observational learning suggests that it can be effective.*

● When can influence based on rewards and punishments backfire?

manipulated. In one study, researchers placed signs in two restrooms on a college campus. One sign read, "Please don't write on these walls," and the other read, "Do not write on these walls under any circumstances." Two weeks later, the walls in the second restroom had more graffiti than the walls in the first restroom did, presumably because students didn't appreciate the threatening tone of the second sign and thus wrote on the walls just to prove that they could (Pennebaker & Sanders, 1976).

The Approval Motive: The Power of Social Acceptance

Other people stand between us and starvation, predation, loneliness, and all the other things that make getting shipwrecked such a bad idea. We depend on others for safety, sustenance, and solidarity, all of which become conspicuous by their absence. Social rejection is not just a blow to our self-esteem but also a hazard to our health. Indeed, being isolated and lonely makes people susceptible to a wide variety of physical illnesses (Pressman et al., 2005). Having others like us, accept us, and approve of us is a powerful human motive (Baumeister & Leary, 1995; Leary et al., 1995), and like any motive, it leaves us vulnerable to social influence. This influence comes in several different forms.

STUART DEE PHOTOGRAPHY

People (and other social animals) are motivated by a need for approval, which leads them to obey norms.

Normative Influence

You probably know that you are supposed to face forward in an elevator and that you shouldn't talk to the person next to you even if you were talking to that person before you got on the elevator unless you are the only two people on the elevator, in which case, it's okay to talk and face sideways but still not backward. What's so interesting about rules such as these is that they are both elaborate and unwritten. No one ever taught you this complicated elevator etiquette, but you nonetheless managed to pick it up along the way. The unwritten rules that govern social behavior are called **norms**, which are *customary standards for behavior that are widely shared by members of a culture* (Miller & Prentice, 1996). We learn norms with exceptional ease and we obey them with exceptional fidelity because we know that if we don't, others won't approve of us.

● How do we learn such things as elevator etiquette?

TED SZCZEPANSKI FOR WORTH PUBISHERS

Have you ever wondered which big spender left the bill as a tip? In fact, the bills are often put there by the very people you are tipping because they know that the presence of paper money will suggest to you that others are leaving big tips and that it would be socially appropriate for you to do the same. By the way, the customary gratuity for someone who writes a textbook for you is 15%. But most students send more.

Our slavish devotion to norms provides a powerful lever for influence. **Normative influence** occurs when *one person's behavior is influenced by another person's behavior because the latter provides information about what is appropriate*. For example, every human culture has a **norm of reciprocity**, which is *the unwritten rule that people should benefit those who have benefited them* (Gouldner, 1960). Thus, when a friend pays for lunch, you probably feel an immediate urge to repay the favor, perhaps even offering, "My treat next time," or words to that effect. Indeed, the norm of reciprocity is so strong that when researchers randomly pulled the names of strangers from a telephone directory and sent them all Christmas cards, they received Christmas cards back from most (Kunz & Woolcott, 1976). Some social influence techniques trade on this norm of reciprocity. For example, waiters and waitresses get bigger tips when they give customers a piece of candy along with the bill because customers feel obligated to do "a little extra" for those who have done "a little extra" for them (Strohmetz et al., 2002).

The norm of reciprocity always involves swapping, but the swapping doesn't always involve favors. The **door-in-the-face technique** is *a strategy that uses reciprocating concessions to influence behavior*.

Here's how it works: You ask someone for something more valuable than you really want, you wait for that person to refuse (to "slam the door in your face"), and then you ask the person for what you really want. This technique works like a charm. In one study, researchers asked college students to volunteer to supervise adolescents who were going on a field trip, and only 17% of the students agreed. But when the researchers first asked students to commit to spending 2 hours per week for 2 years working at a youth detention center (to which every one of the students said no) and *then* asked them if they'd be willing to supervise the field trip, 50% of the students agreed (Cialdini et al., 1975). There's a mindbug at work: People were more likely to endorse the second request *because* they refused the first request, although most people would balk at the second request if they heard it all by itself. How does this technique involve the norm of reciprocity? The researchers began by asking for a large favor, which the student firmly refused. They then made a concession by asking for a smaller favor. Because the researchers made a concession, the norm of reciprocity demanded that the student make one, too.

WILLIAM VENDIVERT/SCIENTIFIC AMERICAN

The perplexed research participant (center), flanked by confederates (who are "in" on the experiment), is on the verge of conformity in one of Solomon Asch's line-judging experiments.

Conformity

People can influence us by invoking familiar norms. But if you've ever found yourself sneaking a peek at the diner next to you, hoping to discover whether the little fork is supposed to be used for the shrimp or the salad, then you know that other people can also influence us by defining *new* norms in ambiguous, confusing, or novel situations. **Conformity** is *the tendency to do what others do simply because others are doing it,* and it results in part from normative influence.

How can normative influence occur if we don't know the norms?

In a classic study, Solomon Asch had participants sit in a room with seven other people who appeared to be ordinary participants but who were actually trained actors (Asch, 1951, 1956). An experimenter explained that the participants would be shown cards with three

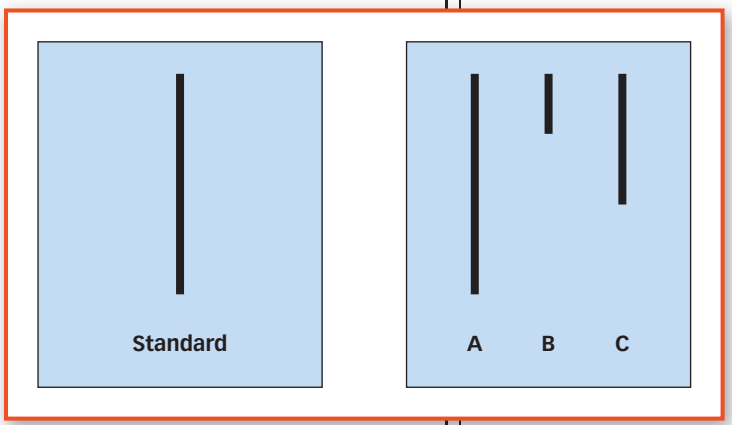


FIGURE 15.5 **Asch's Conformity Study** *If you were asked which of the lines on the right—A, B, or C—matches the standard line on the left, what would you say? Research on conformity suggests that your answer would depend, in part, on how other people in the room answered the same question.*

lines printed on them and that their job was to state which of the three lines matched a "standard line" that was printed on another card (**FIGURE 15.5**). The experimenter held up a card and then went around the room, asking each person to answer aloud in turn. The real participant was among the last to be called on. Everything was normal on the first two trials, but on the third trial, something odd happened: The actors all began giving the same wrong answer! What did the real participant do? Results showed that 75% of them conformed and announced the wrong answer on at least one trial. Participants didn't actually misperceive the length of the lines; that'd be pretty difficult for someone with normal vision to do. Rather, they merely said something they didn't believe in order to gain social approval.

AP PHOTO

In 2005, Private Lynndie England was convicted for her role in the abuse of Iraqi prisoners at the Abu Ghraib prison. When the judge asked her why she had abused the prisoners, she implicated her fellow soldiers. "I refused at first . . . [but] they were being very persistent, bugging me, so I said, 'Okay, whatever.'" Then she added, "I was yielding to peer pressure."

Obedience

Other people's behavior can provide information about norms, but in most situations there are a few people whom we all recognize as having special authority both to define and enforce the norms. The usher at a movie theater may be an underpaid high school student who isn't allowed to drink, drive, vote, or stay up past 10 on a school night, but in the context of the theater, the usher is the authority. So when the usher asks you to take your feet off the seat in front of you, you obey. **Obedience** is *the tendency to do what authorities tell us to do simply because they tell us to do it.*

Authorities can influence us by threatening punishment and promising reward, but research suggests that much of their influence is *normative* (Tyler, 1990).

Why do we obey authorities?

Stanley Milgram demonstrated this in one of psychology's most infamous experiments (Milgram, 1963). The participants in this experiment met a middle-aged man who was introduced as another participant but who was actually a trained actor. An experimenter in a lab coat explained that the participant would play the role of *teacher* and the actor would play the role of *learner*. The teacher and learner would sit in different rooms, the teacher would read words to the learner over a microphone, and the learner would then repeat the words back to the teacher. If the learner made a mistake, the teacher would press a button that delivered an electric shock to the learner. Each time the learner made an error, the teacher would increase the level of shock (**FIGURE 15.6**). The shock-generating machine (which wasn't actually hooked up, of course) offered 30 levels of shock, ranging from 15 volts (labeled "slight shock") to 450 volts (labeled "Danger: Severe shock").

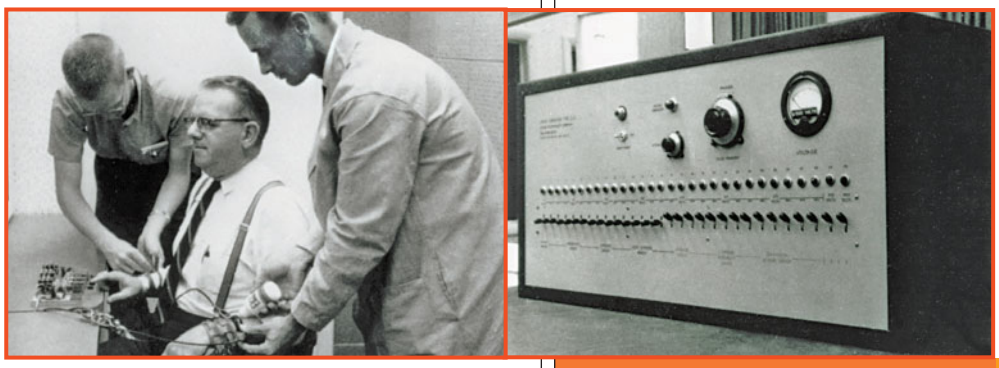


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FIGURE 15.6
Milgram's Obedience Studies *The learner (left) being hooked up to the shock generator (right) that was used in Stanley Milgram's obedience studies.*

After the learner was strapped into his chair, the experiment began. When the learner made his first mistake, the participant dutifully delivered a 15-volt shock. As the learner made more mistakes, he received more shocks. When the participant delivered the 75-volt shock, the learner cried out in pain. At 150 volts, the learner screamed, "Get me out of here. I told you I have heart trouble. . . . I refuse to go on. Let me out!" With every shock, the learner's screams became more agonized as he pleaded pitifully for his freedom. Then, after receiving the 330-volt shock, the learner stopped responding altogether. Participants were naturally upset by all of this, and they typically asked the experimenter to stop the experiment. But the experimenter simply replied, "You have no choice; you must go on." The experimenter never threatened the participant with punishment of any kind. Rather, he just stood there with his

conformity The tendency to do what others do simply because others are doing it.

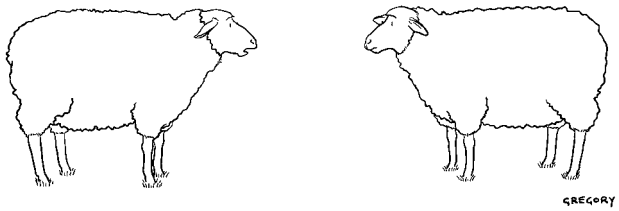
obedience The tendency to do what authorities tell us to do simply because they tell us to do it.


KEYSTONE/GETTY IMAGES

Is this the face of a monster? In this photo, Nazi war criminal Adolph Eichmann sits before the District Court of Jerusalem. Eichmann acknowledged that he sent millions of Jews to their deaths but argued that he was merely obeying authority. He was sentenced to death and hanged in 1962.

clipboard in hand and calmly instructed the participant to continue. Eighty percent of the participants continued to shock the learner even after he screamed, complained, pleaded, and then fell silent. And 62% of the participants went all the way, delivering the highest possible voltage.

Were these people psychopathic sadists? Would a normal person electrocute a stranger just because some guy in a lab coat told them to? The answer, it seems, is yes, because being *normal* means being sensitive to and respectful of social norms. The participants in this experiment knew that hurting others is *often* wrong but not *always* wrong. Doctors give painful injections, and teachers give painful exams. In many situations it is permissible—and even desirable—to cause someone to suffer in the service of a higher goal. The experimenter's calm demeanor and persistent instruction suggested that he, and not the participant, knew what was appropriate in this particular situation. Subsequent research confirmed that participants' obedience was due to normative pressure. When the experimenter's authority to define the norm was undermined—for example, when a second experimenter appeared to disagree with the first or when the instructions were given by a person who wasn't wearing a lab coat—participants rarely obeyed the instructions (Milgram, 1974; Miller, 1986).



ALEX GREGORY/CARTOONBANK.COM

"Sure, I follow the herd—not out of brainless obedience, mind you, but out of a deep and abiding respect for the concept of community."

The Accuracy Motive: The Power of Being Right

Just about every action relies on an **attitude**, which is *an enduring positive or negative evaluation of an object or event,* and a **belief**, which is *an enduring piece of knowledge about an object or event.* When we are hungry, we open the refrigerator and grab an apple because our attitudes tell us that apples taste good and our beliefs tell us that those good-tasting apples are to be found in the refrigerator. In a sense, attitudes tell us what we should do ("Eat an apple") and beliefs tell us how we should do it ("Start by opening the fridge"). If attitudes or beliefs are inaccurate—that is, if we don't know what is good and we don't know what is true—then our actions are fruitless. Because we rely so heavily on our attitudes and beliefs to guide our actions, it isn't surprising that we want to have the right ones. We are motivated to be accurate, and like any motive, this one leaves us vulnerable to social influence.

attitude An enduring positive or negative evaluation of an object or event.

belief An enduring piece of knowledge about an object or event.

informational influence A phenomenon whereby a person's behavior is influenced by another person's behavior because the latter provides information about what is good or true.

persuasion A phenomenon that occurs when a person's attitudes or beliefs are influenced by a communication from another person.

systematic persuasion A change in attitudes or beliefs that is brought about by appeals to reason.

heuristic persuasion A change in attitudes or beliefs that is brought about by appeals to habit or emotion.

Informational Influence

Other human beings have pretty much the same sensory apparatus that we do, and thus we rely on their reactions to the world to tell us about the world. If everyone in a movie theater suddenly jumped up and ran screaming for the exit, you'd probably join them—not because you were afraid that they'd think less of you if you didn't, but because their behavior would suggest that there was something worth running from. **Informational influence** occurs when *a person's behavior is influenced by another person's behavior because the latter provides information about what is good or true*. You can demonstrate the power of informational influence by standing in the middle of the sidewalk, tilting back your head, and staring at the top of a tall building. Research shows that within just a few minutes, other people will begin stopping

and staring, too, believing that you must know something they don't (Milgram, Bickman, & Berkowitz, 1969).

You are the constant target of informational influence. Advertisements that refer to soft drinks as "popular" or books as "best sellers" are reminding you that other people are buying these particular sodas and novels, which suggests that they know something you don't and that you'd be wise to follow their example. Situation comedies provide "laugh tracks" because the producers know that when you hear other people laughing, you will mindlessly assume that something must be funny (Nosanchuk & Lightstone, 1974). Bars and nightclubs may waive the cover charge for the first group of patrons because they know that when a club looks full, passersby will assume that others spent money to get into the club and that the club must be worth the expense. In short, the world is full of objects and events that we know little about, and we can often cure our ignorance by paying attention to the way in which others are acting toward them. Alas, the very thing that makes us open to information leaves us open to manipulation as well.

● How do informational influence and normative influence differ?

COURTESY OF J.J. PASCOE

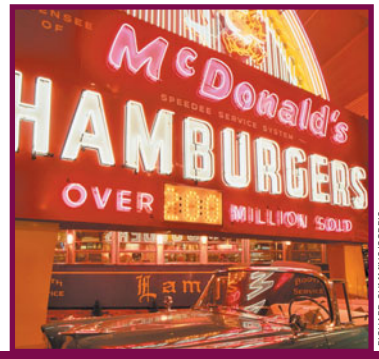
AP PHOTO/SUZANNE PLUNKETT

The behavior of others provides information about the world to which they are reacting. When a social animal flees, others tend to follow.

Persuasion

When the next presidential election rolls around, two things will happen. First, the candidates will say that they intend to win your vote by making arguments that focus on the issues. Second, the candidates will then avoid arguments, ignore issues, and attempt to win your vote with a variety of cheap tricks. What the candidates promise to do and what they actually do reflect two basic forms of **persuasion**, which occurs when *a person's attitudes or beliefs are influenced by a communication from another person* (Petty & Wegener, 1998). The candidates will promise to persuade you by demonstrating that their positions on the issues are the most practical, intelligent, fair, and beneficial. Having made that promise, they will then devote most of their financial resources to persuading you by other means—for example, by dressing nicely and smiling a lot, by surrounding themselves with famous athletes and movie stars, by repeatedly pairing their opponent's name with words and images that nobody much cares for, and so on. In other words, the candidates will promise to engage in **systematic persuasion**, which refers to *a change in attitudes or beliefs that is brought about by appeals to reason,* but they will spend most of their time and money engaged in **heuristic persuasion**, which refers to *a change in attitudes or beliefs that is brought about by appeals to habit or emotion* (Chaiken, 1980; Petty & Cacioppo, 1986).

● In what ways do politicians appeal to emotion?



RICHARD CUMMINS/CORBIS

Is McDonald's trying to keep track of sales from the parking lot? Probably not. Rather, they want you to know that other people are buying their hamburgers, which suggests that they are worth buying, which in turn suggests that you just might want to stop and have one yourself right about now.

WWW.STRANGECOSMOS.COM

The order in which information is presented can have an influence on the persuasiveness of a communication.

How do these two forms of persuasion work? *Systematic persuasion* appeals to logic and reason. People should be more persuaded when evidence and arguments are strong rather than weak. Although this is often true, many rhetorical devices can make arguments and evidence seem stronger than they actually are. For example, people generally pay more attention to the argument they hear first but remember best the argument they hear last. As such, a candidate may prefer to speak first if the debate is being held 1 day before the election but may prefer to speak last if the debate is being held 1 month before the election (Miller & Campbell, 1959).

Heuristic persuasion appeals to habit and emotion. Rather than weighing evidence and analyzing arguments, people often use *heuristics*—which are simple shortcuts or "rules of thumb"—to help them decide whether to believe a communication (see Chapter 7). For instance, participants in one study read the statement, "When a

Systematic and heuristic persuasion have long been the staples of advertising. The automobile advertisement on the left presents facts about the car and invites you to "see for yourself," whereas the advertisement on the right tells you only that most people choose this ketchup. Can you guess why advertisers include more facts when selling cars than ketchup? Answer: Cars are more expensive (and thus people are strongly motivated to consider evidence for or against buying them), but ketchup is cheap.

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government becomes oppressive, it is the right of the people to abolish it." Those who were told that the remark had been made by Abraham Lincoln were more persuaded by it than were those who were told that the remark had been made by Communist leader Vladimir Lenin (Lorge, 1936). (In case you're wondering, the sentence paraphrases a statement in the U.S. Declaration of Independence.) Rather than analyzing the content of the remark, participants used a simple heuristic ("Always trust Honest Abe" or "Never trust a Commie") to help them decide whether to accept the communication.

Consistency

If a friend told you that rabbits had just staged a coup in Antarctica and were halting all carrot exports, you probably wouldn't turn on CNN to see if it was true. You'd know right away that your friend was joking because the statement is logically inconsistent with other things that you know are true—for example, that rabbits rarely foment revolution and that Antarctica does not export carrots. People evaluate the accuracy of new beliefs by assessing their *consistency* with old beliefs, and although this is not a foolproof method for determining whether something is true, it provides a pretty good approximation. Most people have a desire for accuracy, and because consistency is a rough measure of accuracy, most of us have a desire for consistency as well (Cialdini, Trost, & Newsom, 1995).

How can people's desire for consistency be used as a tool of persuasion?

Our desire for consistency can leave us vulnerable to social influence. For example, the **foot-in-the-door technique** is *a strategy that uses a person's desire for consistency to influence that person's behavior* (Burger, 1999). In one study, experimenters went to a neighborhood, knocked on doors, and asked homeowners if they would install in their front yards a large, unsightly sign that said, "Drive Carefully." Only 17% of the homeowners agreed to install the sign. The experimenters asked some other homeowners to sign a petition urging the state legislature to promote safe driving, which almost all agreed to do, and *then* asked those homeowners if they would install the unsightly sign. Fifty-five percent of *these* homeowners agreed to install the sign (Freedman & Fraser, 1966)!

Why would a homeowner be more likely to grant two requests than one? They had just signed a petition stating that safe driving was important to them, and they knew that refusing to install the sign would be inconsistent with that action. As they wrestled with these facts, they probably began to experience a feeling called **cognitive dissonance**, which is *an unpleasant state that arises when a person recognizes the inconsistency of his or her actions, attitudes, or beliefs* (Festinger, 1957). When people experience the unpleasant state of cognitive dissonance, they naturally try to alleviate it, and one way to alleviate cognitive dissonance is to change one's actions, attitudes, or beliefs in order to restore consistency among them (Aronson, 1969; Cooper & Fazio, 1984).

foot-in-the-door technique A strategy that uses a person's desire for consistency to influence that person's behavior.

cognitive dissonance An unpleasant state that arises when a person recognizes the inconsistency of his or her actions, attitudes, or beliefs.

We desire consistency, but occasions inevitably arise when we just can't help but be inconsistent—for example, when we tell a friend that her new hairstyle is "unusually trendy" when it actually resembles a wet skunk after an unfortunate encounter with a blender. Why don't we experience cognitive dissonance under such circumstances and come to believe our own lies? Because telling a friend that her hairstyle is trendy is inconsistent with the belief that her hairstyle is hideous, but it is perfectly consistent with the belief that one should be nice to one's friends. When small inconsistencies are *justified* by large consistencies, cognitive dissonance does not occur.

For example, participants in one study were asked to perform a dull task that involved turning knobs one way, then the other, and then back again. After the participants were sufficiently bored, the experimenter explained that he desperately needed a few more people to volunteer for the study, and he asked the participants to go into the hallway, find another person, and tell that person that the knob-turning task was great fun. The experimenter offered some participants $1 to tell this lie, and he offered other participants $20. All participants agreed to tell the lie, and after they did so, they were asked to report their true enjoyment of the knob-turning task. The results showed that participants liked the task *more* when they were paid $1 than $20 to lie about it (Festinger & Carlsmith, 1959). Why? Because the belief that *the knob-turning task was dull* was inconsistent with the belief that *I recommended the task to that person in the hallway,* but the latter belief was perfectly consistent with the belief that *$20 is a lot of money*. For some participants, the large payment justified the lie, so only those people who received the small payment experienced cognitive dissonance. As such, only the participants who received $1 felt the need to restore consistency by changing their beliefs about the enjoyableness of the task (**FIGURE 15.7**).

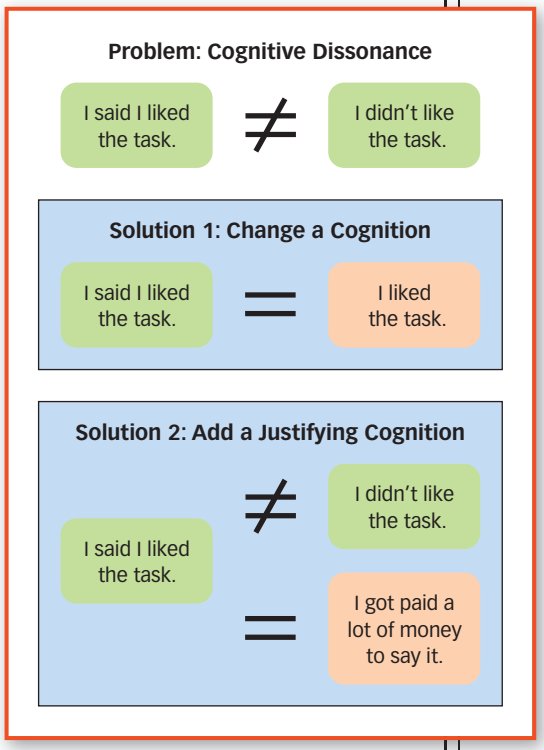


FIGURE 15.7 **Reducing Cognitive Dissonance** *Behaving in ways that are inconsistent with your attitudes and beliefs can cause cognitive dissonance. One way to eliminate that dissonance is to change your attitude or belief. Another way is to add a justification.*

summary quiz [15.2]

5. Yasmine took her cousin Jade out to lunch, and picked up the tab. Jade replied, "Thanks. My turn next time." Jade's response demonstrates what principle?
   a. common courtesy
   b. observational learning
   c. diffusion of responsibility
   d. norm of reciprocity

6. The tendency to do what authorities tell us to do simply because they tell us to do it is known as
   a. persuasion.
   b. the self-fulfilling prophecy.
   c. conformity.
   d. obedience.

social cognition The processes by which people come to understand others.

stereotyping The process by which people draw inferences about others based on their knowledge of the categories to which others belong.

7. Andrea and Jeff had to wait in line for over an hour to get into an exclusive restaurant. Despite being served a mediocre meal, they glowingly praised the restaurant to their friends. This behavior was probably a result of
   a. conformity.
   b. the norm of reciprocity.
   c. perceptual confirmation.
   d. cognitive dissonance.

Social Cognition: Understanding People

"Now, what's with Big Tom? Can he really be as clueless as he appears? He seems to still just be trying to float and hope for the best. . . . I can't quite make out what Jenna's trying to do, either. She knows from experience that she yaps far too much and I would have thought she would have tempered that trait by now. Rob's . . . personality is humorous, but he's created animosity in several of the others . . . so he could be in serious trouble."

These words aren't great poetry. They're not even grammatical prose. But they are worth a million bucks because they represent the musings of Richard Hatch, who won the game of *Survivor* by thinking long and hard about the other people on his island—about who they were, what they did, and why (Hatch, 2005). Hatch was an informal specialist in **social cognition**, which refers to *the processes by which people come to understand other.* Most of us specialize in precisely the same subject—drawing inferences about other people's thoughts and feelings, their beliefs and desires, their abilities and aspirations, their intentions, needs, and characters—because other people can provide us with the greatest benefits and exact from us the greatest costs.

As it turns out, the inferences we draw about other people are based on the categories to which they belong and on the things they say and do. Let's examine these two kinds of inferences in turn.

● How do we draw inferences about other people?

RENO MASSOLA/LATINPHOTO.ORG

These photos show a former basketball player who was recently elected to the city council in Athens, Greece, and a Brazilian poet who wrote, "To not contemplating, I prefer eternal blindness." Despite what your stereotypes might suggest, Thiago de Mello (left) is the Brazilian poet and Yvette Jarvis (right) is the former basketball player and Greek politician.

Stereotyping: Drawing Inferences from Categories

You'll recall from Chapter 7 that *categories* are classes of related stimuli. Once we have identified a novel stimulus as a member of a category ("That's a textbook"), we can then use our knowledge of the category to make educated guesses about the properties of the novel stimulus ("It's probably expensive") and act accordingly ("I think I'll borrow it from the library"). The same is true of people. **Stereotyping** is *the process by which people draw inferences about others based on their knowledge of the categories to which others belong*. The moment we categorize a person as an adult, a male, a baseball player, and a Russian, we can use our knowledge of those categories to make some educated guesses about him—for example, that he shaves his face but not his legs, that he understands the infield fly rule, and that he knows more about Chekhov than we do. As these examples suggest, stereotyping is a very useful process (Allport, 1954). And yet, ever since the word was coined in 1936, it has had a distasteful connotation. Why? Because stereotyping is a useful process that can often produce harmful results, and it does so because stereotypes can be inaccurate, overused, self-perpetuating, and automatic.

Stereotypes Can Be Inaccurate

The inferences we draw about individuals are only as accurate as our stereotypes about the categories to which they belong. There are only two ways to acquire a belief about anything: to see for yourself or to take somebody else's word for it. In fact, most of what we know about the members of human categories is hearsay—stuff we picked up from friends and uncles, from novels and newspapers, from jokes and movies and late-night television. In the process of inheriting the wisdom of our culture, it is inevitable that we also will inherit its ignorance.

But even direct observation can produce inaccurate stereotypes. For example, research participants in one study were shown a long series of positive and negative behaviors and were told that each behavior had been performed by a member of one of two groups: Group A or Group B (**FIGURE 15.8**). There were more positive than negative behaviors in the series, and there were more members of Group A than of Group B. The series of behaviors was carefully arranged so that each group behaved negatively exactly one third of the time. After seeing the series, participants correctly remembered that Group A had behaved negatively one third of the time. However, they incorrectly remembered that Group B had behaved negatively more than *half* the time (Hamilton & Gifford, 1976).

● How can direct observation produce inaccurate stereotypes?

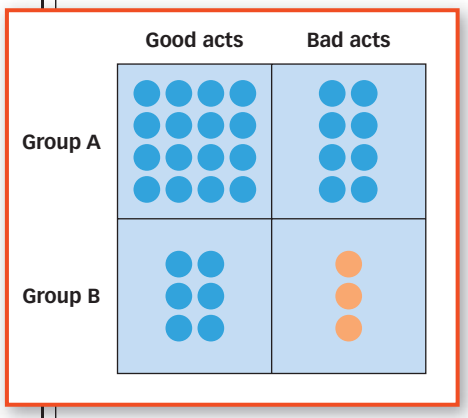


FIGURE 15.8 **Illusory Correlation** *Group A and Group B each perform two-thirds good acts and one-third bad acts. However, "Group B" and "bad acts" are both rare, leading people to notice and remember their co-occurrence, which leads them to perceive a correlation between group membership and behavior that isn't really there.*

Why did this happen? Bad behavior was rare and being a member of Group B was rare; thus participants were especially likely to notice when the two co-occurred ("Aha! There's one of those unusual Group B people doing an unusually awful thing again"). These findings help explain why members of majority groups tend to overestimate the number of crimes (which are relatively rare events) committed by members of minority groups (who are relatively rare people; that's why they're in the minority). Even when we directly observe people, we can end up with inaccurate beliefs about the groups to which they belong. This mindbug has the potential to create disastrous consequences for societies and for social relationships.

Stereotypes Can Be Overused

Because all thumbtacks are pretty much alike, our beliefs about thumbtacks ("small, cheap, painful when chewed") are quite useful, and we will rarely be mistaken if we generalize from one thumbtack to another. Human categories, however, are so variable that our stereotypes may offer only the vaguest of clues about the individuals who populate those categories. You probably believe that men have greater upper body strength than women do, and this belief is right *on average*. But the upper body strength of individuals *within* each of these categories is so varied that you cannot easily predict how much weight a particular person can lift simply by knowing that person's gender. The inherent variability of human categories makes stereotypes much less useful than they might otherwise be. In our quest to define the forest, we often miss the uniqueness of each tree.

Alas, we don't always recognize this because the mere act of categorizing a stimulus tends to warp our perceptions of that category's variability. For instance, participants in some studies were shown a series of lines of different lengths (**FIGURE 15.9**; McGarty & Turner, 1992; Tajfel & Wilkes, 1963). For one group of participants, the longest lines were labeled *A* and the shortest lines were labeled *B*, as they are on the right side of **FIGURE 15.9**.

● How does categorizing something change our perception of it?

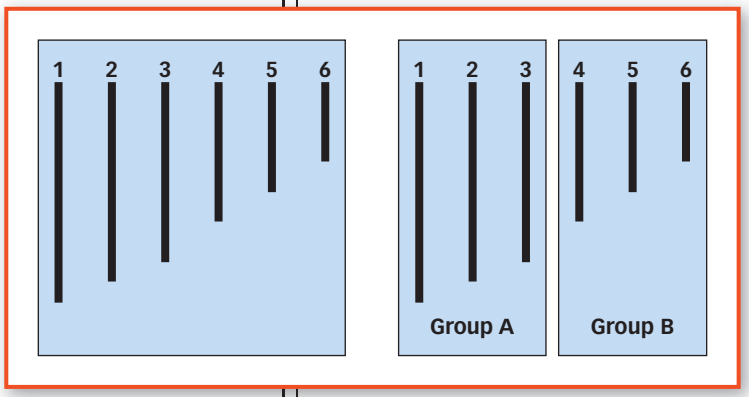


FIGURE 15.9 **Assimilation and Contrast** *People who see the lines on the right tend to overestimate the similarity of lines 1 and 3 and underestimate the similarity of lines 3 and 4. Simply labeling lines 1 through 3 "Group A" and lines 4 through 6 "Group B" causes the lines within a group to seem more similar to each other than they really are and the lines in different groups to seem more different from each other than they really are.*

They may all look alike to you, but if you confuse the harmless snake on the left with the deadly snake on the right, you won't be around to do it a second time.

LEFT: IMAGE QUEST MARINE/ALAMY RIGHT: DAVE RODRIGUEZ/ISTOCKPHOTO

For the second group of participants, the lines were shown without these category labels, as they are on the left side of **FIGURE 15.9**. Interestingly, those participants who saw the category labels *overestimated* the similarity of the lines that shared a label and *underestimated* the similarity of lines that did not.

You've probably experienced this phenomenon yourself. For instance, we all identify colors as members of categories such as *blue* or *green,* which leads us to overestimate the similarity of colors that share a category label and to underestimate the similarity of colors that do not. This is why we see discrete *bands* of color when we look at rainbows, which are actually a smooth continuum of colors. This is also why we tend to underestimate the distance between cities that are in the same country, such as Memphis, Tennessee, and Pierre, South Dakota, and overestimate the distance between cities that are in different countries, such as Memphis, Tennessee, and Toronto, Canada (Burris & Branscombe, 2005). What's true of colors and distances is true of people as well. The mere act of categorizing people as Blacks or Whites, Jews or Gentiles, artists or accountants can cause us to underestimate the variability within those categories ("All artists are wacky") and to overestimate the variability between them ("Artists are much wackier than accountants"). When we underestimate the variability of a human category, we feel justified in using our stereotypes.

Stereotypes Can Be Self-Perpetuating

When we meet a man who likes ballet more than football or a senior citizen who likes hip-hop more than easy-listening, why don't we recognize that our stereotypes are inaccurate? Stereotypes are a bit like viruses, and once they take up residence inside us, they perpetuate themselves and resist even our most concerted efforts to eradicate them. Here are three mindbugs that contribute to self-perpetuating stereotypes.

● How is a stereotype like a virus?

- **Perceptual confirmation** is *the tendency for observers to perceive what they expect to perceive*. In one study, participants listened to a radio broadcast of a college basketball game and were asked to evaluate the performance of one of the players. Although all participants heard the same prerecorded game, some were led to believe that the player was Black and others were led to believe that the player was White. Participants' stereotypes led them to expect different performances from athletes of different ethnic origins. In fact, the participants perceived just what they expected. Those who believed the player was Black thought he had exhibited greater athletic ability but less intelligence than did those who thought he was White (Stone, Perry, & Darley, 1997). Stereotypes perpetuate themselves in part by biasing our perception of individuals, leading us to believe that those individuals have confirmed our stereotypes when, in fact, they have not (Fiske, 1998).
- **Self-fulfilling prophecy** is *a phenomenon whereby observers bring about what they expect to perceive*. When people know that observers have a negative stereotype about them, they may experience *stereotype threat,* or fear of confirming an observer's stereotype. Ironically, this fear can cause people to behave in precisely the

perceptual confirmation A phenomenon that occurs when observers perceive what they expect to perceive.

self-fulfilling prophecy A phenomenon whereby observers bring about what they expect to perceive.

subtyping The process of creating a modification to a stereotype, rather than abandoning it altogether, when confronted with evidence that clearly disconfirms that stereotype evidence.

way that the stereotype predicts. In one study, American students of African or European ancestry were given a test, and half of the students in each group were asked to list their race at the top of the exam. Students who were not asked to list their race performed as well as their SAT scores suggested they should (Steele & Aronson, 1995). But when students were asked to list their races, African American students performed more poorly than their SAT scores suggested they should (**FIGURE 15.10**). Similarly, observers tend to seek information that confirms rather than disconfirms their stereotypes (Snyder & Swann, 1978). When a man asks a woman, "Do you like cooking more than sewing?" he is giving her very little opportunity to explain that she actually prefers sumo wrestling to both. Stereotypes perpetuate themselves in part by causing the stereotyped individual to behave in ways that confirm the stereotype.

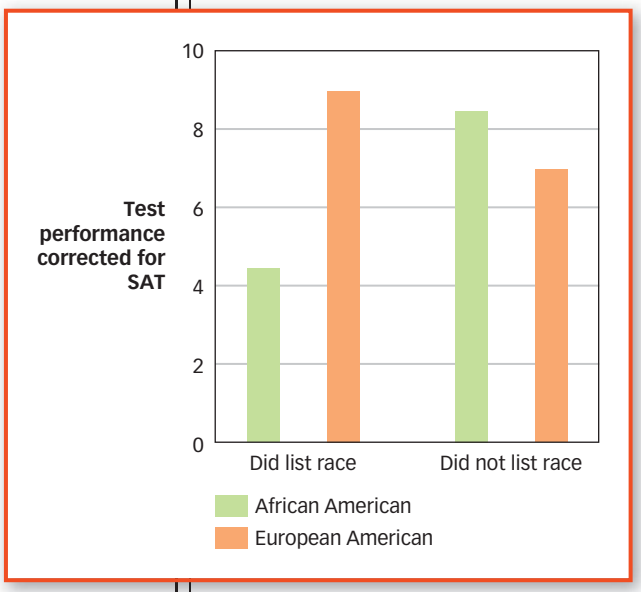


FIGURE 15.10
Stereotype Threat and Exam Performance *When asked to indicate their race before starting a test, African American students perform more poorly than their SAT scores suggest they should. (Steele & Aronson, 1995)*

- **Subtyping** is *the process of creating a modification to a stereotype, rather than abandoning it altogether, when confronted with evidence that clearly disconfirms that stereotype* (Weber & Crocker, 1983). For example, people tend to believe that public relations agents are sociable. In one study, participants learned about a PR agent who was *slightly* unsociable, and the results showed that their stereotypes about PR agents shifted a bit to accommodate this new information. But when participants learned about a PR agent who was *extremely* unsociable, their stereotypes did not change at all (Kunda & Oleson, 1997). Instead, they tended to think of the extremely unsociable PR agent as "an exception to the rule" and thereby preserve their stereotypes about PR agents in general. Subtyping is a powerful method for preserving our stereotypes in the face of contradictory evidence.


BRIAN PLONKA/THE SPOKESMAN REVIEW

Many of us think that nuns are traditional and proper. Does this photo of Sister Rosa Elena nailing Sister Amanda de Jesús with a snowball change your stereotype, or are you tempted to subtype them instead?

Stereotyping Can Be Automatic

If stereotypes are inaccurate and self-perpetuating, then why don't we just stop using them? Stereotyping can happen *unconsciously* (which means that we don't always know we are using them) and *automatically* (which means that we often cannot avoid using them even when we try). For example, in one study, photos of Black or White men holding guns or cameras were flashed on a computer screen for less than 1 second each. Participants earned money by pressing a button labeled "shoot" whenever the man on the screen was holding a gun but lost money if they shot a man holding a camera. The participants made some mistakes, of course, but the kinds of mistakes they made were quite disturbing: Participants were more likely to shoot a man holding a gun when that man was Black and less likely to shoot a man holding a camera when that man was White (Correll et al., 2002). Although the photos appeared on the screen so quickly that participants did not have enough time to consciously consult their stereotypes, those stereotypes worked unconsciously, causing them to mistake a camera for a gun when it was in the hands of a Black man and a gun for a camera when it was in the hands of a White man. Interestingly, Black participants were just as likely to make this pattern of errors as were White participants.

Stereotypes comprise all the information that we have absorbed over the years about members of different human categories, for better or for worse, and we can't *decide* not to use that information any more than we can *decide* not to see the color green. In fact, trying not to use stereotypes can make matters worse instead of better. Participants in one study were shown a photograph of a tough-looking male "skinhead" and were asked to write an essay describing a typical day in his life. Some of the participants were told that they should not allow their stereotypes about skinheads to influence their essays, and others were given no such instructions. Next, the experimenter brought each participant to a room with eight empty chairs. The first chair had a jacket draped over

AP PHOTO/HO

Ahmed Amadou Diallo was gunned down at his home in the Bronx on February 4, 1999. Four White police officers fired 41 shots at Diallo, who had no police record and was unarmed. Diallo was hit 19 times and died instantly. The officers testified that Diallo had gestured with his hands, leading them to believe that he was reaching for a gun.

it, and the experimenter explained that it belonged to the person in the photograph, who had gone to use the restroom. Where did participants choose to sit? Participants who had been told not to let their stereotypes influence their essays sat farther away from the skinhead's jacket than did participants who had been given no instructions (Macrae et al., 1994).

Why did this happen? As you learned in Chapter 8, attempts to suppress a thought can increase the likelihood that people will experience the very thought they are trying to suppress (Wegner et al., 1987). Stereotypical thoughts are no exception. Although stereotyping is often unconscious and automatic, it is not inevitable (Blair, 2002). We cannot stop using stereotypes with the flick of a mental switch, but research shows that stereotyping effects can be reduced (and sometimes eliminated) by a variety of factors ranging from educational programs (Kawakami et al., 2000; Rudman, Ashmore, & Gary, 2001) to damage to the prefrontal cortex (Milne & Grafman, 2001). Education is probably the better social policy.

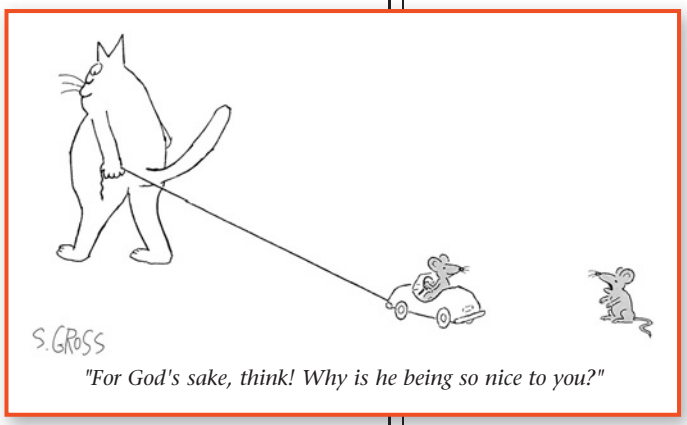
How can stereotyping be reduced or eliminated?

Attribution: Drawing Inferences from Actions

In 1963, Dr. Martin Luther King Jr. gave a speech in which he described his vision for America. "I have a dream that my four children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character." Research on stereotyping demonstrates that Dr. King's concerns were well justified. We do indeed judge others by the color of their skin—as well as by their gender, nationality, religion, age, and occupation—and in so doing, we sometimes make tragic errors. But are we any better at judging people by the content of their character? If we could "turn off" our stereotypes and treat each person as an individual, would we judge these individuals accurately?

Not necessarily. Treating a person as an individual means judging that person by his or her own words and deeds. This is more difficult than it sounds because the relationship between what a person *is* and what a person *says or does* is not always straightforward. An honest person may lie to save a friend from embarrassment, and a dishonest person may tell the truth to bolster her credibility. Happy people have some rotten days, polite people can be rude in traffic, and people who despise us can be flattering when they need a favor. In short, people's behavior *sometimes* tells us about the kind of people they are, but sometimes it simply tells us about the kind of situation they happen to be in.

What does a person's behavior tell us about them?



SAM GROSS/CARTOONBANK.COM

"For God's sake, think! Why is he being so nice to you?"

To judge people accurately we need to know not only *what* they did but also *why* they did it. Is the batter who hit the home run a talented slugger, or was the wind blowing in just the right direction? Is the politician who gave the pro-life speech really opposed to abortion, or was she just trying to win the conservative vote? When we answer questions such as these, we are making **attributions**, which are *inferences about the causes of people's behaviors* (Gilbert, 1998; Heider, 1958; Jones & Davis, 1965; Kelley, 1967). We make *situational attributions* when we decide that a person's behavior was caused by some temporary aspect of the situation in which it happened ("He was lucky that the wind carried the ball into the stands"), and we make *dispositional attributions* when we decide that a person's behavior was caused by his or her relatively enduring tendency to think, feel, or act in a particular way ("He's got a great eye and a powerful swing").

Research suggests that people often fall prey to the **correspondence bias**, which is *the tendency to make a dispositional attribution even when a person's behavior was caused by the situation* (Gilbert & Malone, 1995; Jones & Harris, 1967; Ross, 1977). This bias is one

attribution An inference about the cause of a person's behavior.

correspondence bias The tendency to make a dispositional attribution even when a person's behavior was caused by the situation.

of the most commonly observed mindbugs, which is why the psychologist Lee Ross has called it the *fundamental attribution error*. For example, volunteers in one experiment played a trivia game in which one participant acted as the "quizmaster" and made up a list of unusual questions, another participant acted as the "contestant" and tried to answer those questions, and a third participant acted as the "observer" and simply watched the game. The quizmasters tended to ask tricky questions based on their own idiosyncratic knowledge, and contestants were generally unable to answer them. After watching the game, the observers were asked to decide how knowledgeable the quizmaster and the contestant were. Although the quizmasters had asked good questions and the contestants had given bad answers, it should have been clear to the observers that all this asking and answering was a product of the roles they had been assigned to play and that the contestant would have asked equally good questions and the quizmaster would have given equally bad answers had their roles been reversed. And yet observers tended to rate the quizmaster as more knowledgeable than the contestant (Ross, Amabile, & Steinmetz, 1977) and were more likely to choose the quizmaster as their own partner in an upcoming game (Quattrone, 1982). Even when we know that a successful athlete had a home field advantage or that a successful entrepreneur had family connections, we tend to attribute their success to talent and tenacity. Why do we make dispositional attributions even when we shouldn't?

PHILIP G. ZIMBARDO, INC.

Do abusive people seek power, or does power lead people to be abusive? In Philip Zimbardo's infamous "Stanford Prison Experiment," researchers built a simulated prison in the basement of the psychology department and randomly assigned volunteers to play the role of prisoner or guard. The study had to be abandoned when many of the "guards" began abusing the "prisoners." In a situation where ordinary people were given the power to harm, they used it. The researchers wrote, "If these reactions had been observed within the confines of an existing penal institution, it is probable that a dispositional hypothesis [or attribution] would be invoked as an explanation" (Haney, Banks, & Zimbardo, 1973). Indeed, more than 30 years later, the prisoner abuse and torture at Abu Ghraib in Iraq was officially denounced as the work of "a few bad apples."

First, the situational causes of behavior are often invisible (Ichheiser, 1949). For example, professors tend to assume that fawning students really do admire them in spite of the strong incentive for students to suck up to those who control their grades. The problem is that professors can literally *see* the student laughing at witless jokes and applauding after boring lectures, but they cannot *see* "control over grades." Situations are not as tangible or visible as behaviors, so it is all too easy to ignore them (Taylor & Fiske, 1978). Second, even when situations are too obvious to ignore, situational attributions tend to be more complex and require more time and attention, which means that they are less likely to be made in the busy world of everyday life. Information about situations is hard to get and hard to use, and thus we are prone to believe that others' actions are caused by their dispositions.

We are more prone to correspondence bias when judging others than when judging ourselves. The **actor-observer effect** is *the tendency to make situational attributions for our*

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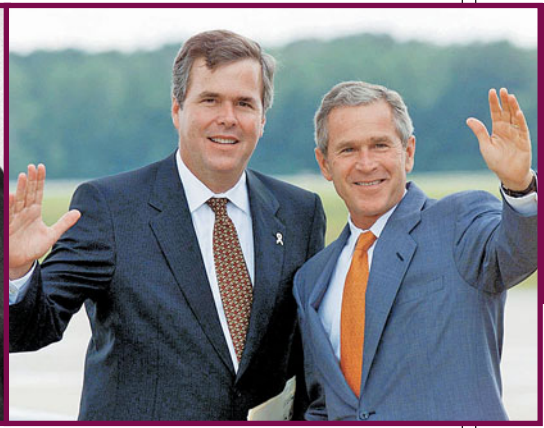

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The Kennedy brothers (Senator Robert, Senator Ted, and President John) and the Bush brothers (Governor Jeb and President George) were all very successful men with very successful fathers. Was their success due to the content of their characters or to the money and fame that came with their family names?

actor-observer effect The tendency to make situational attributions for our own behaviors while making dispositional attributions for the identical behavior of others.

own behaviors while making dispositional attributions for the identical behavior of others (Jones & Nisbett, 1972). When college students were asked to explain why they and their friends had chosen their majors, they tended to explain their own choices in terms of situations ("I chose economics because my parents told me I have to support myself as soon as I'm done with college") but tended to explain their friends' choices in terms of dispositions ("Norma chose economics because she's materialistic") (Nisbett et al., 1973). The actor-observer effect occurs because people typically have *more information* about the situations that caused their own behavior than about the situations that caused other people's behavior. We can remember getting the please-major-in-something-practical lecture from our parents, but we weren't at Norma's house to see her get the same lecture.

summary quiz [15.3]

8. A common occupational stereotype is that lawyers are manipulative. Most people who subscribe to this stereotype
   a. believe that the stereotype applies to *all* lawyers.
   b. believe that the stereotype actually applies to just a small percentage of lawyers.
   c. believe that lawyers are more likely than others to have this characteristic.
   d. would not be likely to misperceive lawyers whom they actually met.

9. Professor Rogers, who believes that women are innately unsuited for science, is much more likely to notice the mistakes of his female lab assistants than his male lab assistants. This is an example of
   a. correspondence bias.
   b. the self-fulfilling prophecy.
   c. perceptual confirmation.
   d. actor-observer effect.

10. Which statement best describes the concept of stereotype threat?
   a. Your expectations about someone may lead that person to act in ways that confirm your expectation.
   b. If you belong to a group that is negatively stereotyped and are reminded of your group membership, you may become anxious and your performance may suffer.
   c. People tend to have negative perceptions of individuals who deviate from gender stereotypes.
   d. When a person clearly disconfirms an observer's stereotype, the observer may create a new subcategory in order to retain the stereotype.

11. Brittany says, "I'm majoring in finance because my parents expect me to join the family business when I graduate, but my friend Abigail is majoring in finance because she's materialistic." This statement illustrates
   a. the self-fulfilling prophecy.
   b. the actor-observer effect.
   c. cognitive dissonance.
   d. unconscious stereotyping.

WhereDoYouStand?

Are You Prejudiced?

The satirist Ambrose Bierce (1911) defined a *bigot* as "one who is obstinately and zealously attached to an opinion that you do not entertain." Indeed, most of us think of prejudice as a bad habit whose defining feature is that other people do it and we don't. Not so fast. Recent research using the *implicit association test* (IAT) suggests that even people who think of themselves as egalitarian can harbor unconscious prejudices.

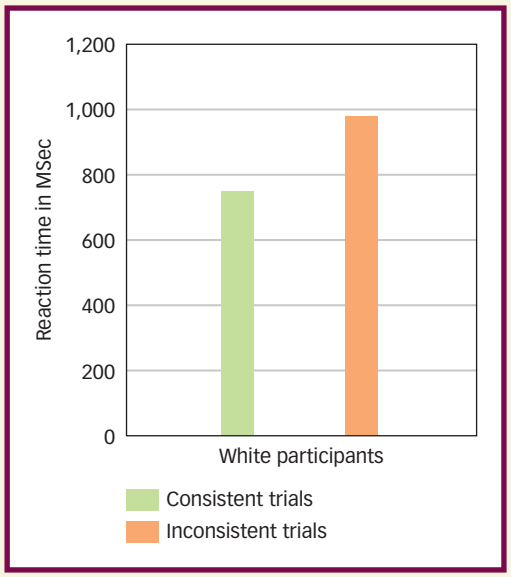
In one study, White participants were asked to classify a series of words (Greenwald et al., 1998). Some of the words were names such as *Greg* or *Jamal*, and others were related to a dislikable category such as *insects* or to a likable category such as *flowers*. When one of these words appeared on the computer screen, the participant's job was to press a button as quickly as possible to indicate whether it was a flower, an insect, a predominantly White name, or a predominantly Black name.

Now comes the interesting part. Although the participants were asked to classify the words as belonging to one of four categories, the experimental apparatus only had two buttons! On the *consistent* trials, participants were told to press the right-hand button if the word was either an insect or a Black name and to press the left-hand button if the word was a flower or a White name. On the *inconsistent* trials, participants were told to press the left-hand button if the word was a flower or a Black name and to press the right-hand button if the word was an insect or a White name (see the figure). Why did the experimenters arrange and rearrange the apparatus this way? Because previous research has shown that a classification task of this sort is much easier if the dislikable words (or the likable words) share a single button. Thus, if White participants disliked Black names, they should have found the classification task easier when Black names and insects shared one button and White names and flowers shared the other. And, in fact, White participants were indeed much faster on the consistent than the inconsistent trials.

Do these results mean that these White participants were a bunch of hate-mongers? Probably not. Psychologists since Freud have recognized that people can consciously think one thing while unconsciously feeling another. Whites who honestly believe in tolerance, diversity, and racial equality and who harbor no conscious prejudice toward Blacks may still show evidence of unconscious prejudice on the IAT (Greenwald & Nosek, 2001). In fact, Black participants also show unconscious prejudice against Blacks on this test (Lieberman et al., 2005).

How can our conscious and unconscious attitudes be so different? You know from Chapter 6 that if an experimenter repeatedly exposed you to the word *democracy* while administering an electric shock, you would eventually develop a negative association with that word. Yet if the experimenter explicitly asked you how you felt about democracy, you would probably say you liked it. In other words, you would have *both* a negative unconscious attitude toward democracy that was based on the pairing of the word with electric shock and a positive conscious attitude toward democracy that was based on your knowledge of world politics (Wilson, Lindsey, & Schooler, 2000). Similarly, Whites who have positive conscious attitudes toward Blacks may nonetheless develop negative unconscious attitudes simply by watching movies and reading newspapers that pair Black names and faces with negative concepts, such as *poverty* and *crime*. Because all Americans are exposed to the same media, Blacks have the same unconscious attitudes toward their own group that Whites do (Greenwald et al., 2002).

This research has potentially profound social, moral, legal, and ethical implications. For instance, in the United States, employers are not allowed to discriminate against applicants on the basis of gender or race (among other things), and they face severe legal repercussions if they are found to have done so. Yet, if people have prejudices that they don't know about and can't control—if they consciously believe all the right things but unconsciously believe some of the wrong ones—then how can they be held accountable for any ill actions that their prejudices may produce? Before you decide where you stand on this issue, you might want to take the IAT yourself at https://implicit.harvard.edu/implicit/demo/.



Results of an IAT Experiment **In this IAT experiment, White participants responded faster on consistent trials when a likable object was paired with a White name. The reaction time on inconsistent trials was considerably slower. (Greenwald et al., 1998)**

CHAPTER REVIEW AND QUIZ ANSWERS

Summary

Social Behavior: Interacting with People

- Evolutionary pressures have made survival and reproduction two fundamental challenges for humans and other animals.
- Survival requires competing against others for access to scarce resources, and two ways of gaining such access are through aggression and through cooperation.
- Reproduction requires choosing the right mate. Mates are chosen based on physical, psychological, and situational attraction, and (for humans) reproduction is usually accomplished within the context of a committed, long-term relationship.

Social Influence: Controlling People

- Social influence exploits basic hedonic, approval, and accuracy motives.
- Social influence exploits hedonic motives by creating situations in which others experience pleasure by doing what we want them to do.
- It exploits approval motives by encouraging others to do what we do, to conform to group behaviors, and to obey authority.
- It exploits accuracy motives by informational influences, persuasion, and the need to feel that we are consistent in our beliefs and our actions.

Social Cognition: Understanding People

- We make inferences about people based on the categories to which they belong, which is the basis of stereotyping.
- Although some stereotypes are useful, they can be inaccurate, they can be overused, they can be self-perpetuating, and they can operate unconsciously and automatically which makes it difficult to avoid using them.
- We also make inferences about people based on their behavior, assuming that they act as they do because of the situations in which they find themselves or because of their own dispositions.

Key Terms

aggression (p. 458)
frustration-aggression principle (p. 459)
cooperation (p. 460)
altruism (p. 461)
reciprocal altruism (p. 461)
group (p. 462)
prejudice (p. 462)
discrimination (p. 462)
deindividuation (p. 462)
diffusion of responsibility (p. 462)
group polarization (p. 463)
mere exposure effect (p. 465)
social exchange (p. 471)
equity (p. 471)
social influence (p. 472)
observational learning (p. 472)
norms (p. 473)
normative influence (p. 473)
norm of reciprocity (p. 473)
door-in-the-face technique (p. 473)
conformity (p. 474)
obedience (p. 475)
attitude (p. 476)
belief (p. 476)
informational influence (p. 476)
persuasion (p. 477)
systematic persuasion (p. 477)
heuristic persuasion (p. 477)
foot-in-the-door technique (p. 478)
cognitive dissonance (p. 478)
social cognition (p. 480)
stereotyping (p. 480)
perceptual confirmation (p. 482)
self-fulfilling prophecy (p. 482)
subtyping (p. 483)
attributions (p. 484)
correspondence bias (p. 484)
actor-observer effect (p. 485)

Critical Thinking Questions

1. Although aggression is part of our evolutionary past, does it have to be part of our future? Why or why not?
2. Of what groups are you a member? Have you experienced prejudice or discrimination of a positive or negative nature because of your group membership? How might understanding the dynamics of groups change how you participate in them?
3. Explain how the candidates in the 2008 presidential election attempted to persuade the American public with their campaign slogans: Obama, "Yes We Can"; McCain, "Country First." Why were these slogans effective or ineffective?

Answers to Summary Quizzes

Summary Quiz 15.1
1. c; 2. b; 3. c; 4. a

Summary Quiz 15.2
5. d; 6. d; 7. d

Summary Quiz 15.3
8. c; 9. c; 10. b; 11. b