19 - 18 Social Cognition

01 - 18 Social Cognition

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CHAPTER 18 SOCIAL COGNITION © ISTOCKPHOTO.COM/HENK BADENHORST For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

P eople think about – and judge – other people all the time. For instance, when engaged in casual people-watching at your university, you might surmise that one cluster of people are football players, another are musicians, and still another, an assortment of book worms. Another person reminds you of your best friend from grade school, and you smile. And many people – male and female alike – believe that women are, by nature, more emotional than men. More chilling examples of social cognition can be drawn from recent history: Osama bin Laden said in a 2001 television interview that all Americans were enemies of Islam – or infidels – and so all Americans should be targeted for attack. And after the terrorist attacks on the U.S. of September 2001, people around the world became more aware of their Arab-born neighbors, wondering if they, too, held the anti-Western attitudes of bin Laden and his followers. Our thoughts and judgments about others don't simply help us pass the time. They have consequences. How you categorize your university classmates, for instance, determines whether and how you interact with them and whether they become friends or people you avoid. As we saw in Chapter 11, endorsing the stereotype that women are more emotional than men can shape people's perceptions of their own and others' emotions. The generalization made by bin Laden and his followers that all Americans are the enemy led to the deaths of thousands of innocent civilians on September 11, 2001, and the subsequent suspicions about Arab-born neighbors has, in some instances, fueled additional prejudice and racially motivated hate crimes. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk CHAPTER OUTLINE IMPRESSION FORMATION Stereotypes Individuation Attributions CUTTING EDGE RESEARCH: CULTURE AND COGNITION ATTITUDES Persuasive communication Attitudes and behavior INTERPERSONAL ATTRACTION Liking and attraction Loving and mating RECAP: A TALE OF TWO MODES OF SOCIAL COGNITION SEEING BOTH SIDES: SHOULD WE TRUST AUTOMATIC THINKING? 649

650 CHAPTER 18 SOCIAL COGNITION Recall that social psychology concerns the ways that people's behavior and mental processes are shaped by the real or imagined presence of others. In Chapter 17, we saw one of the foremost lessons of social psychology: that social situations – like the presence of others, unanimous majorities, requests from authorities, social norms, and group interactions – can have enormous power to influence people's behavior, thoughts, and feelings, power that often goes unrecognized. In this chapter, we will encounter another core lesson of social psychology: that to more fully understand people's social behavior, we need to 'get inside their heads'. The study of social cognition does just that. It examines people's subjective interpretations of their social experiences, as well as their modes of thinking about the social world. As social

psychologists have peered inside people's heads, looking for clues that might illuminate social behavior, they have found evidence for two different modes of thinking, one more automatic and unintentional, often outside conscious awareness, and another more controlled and deliberate, of which we are fully aware. This idea that there are two different modes of thinking should be familiar to you. In Chapter 11, we saw that people's cognitive appraisals – their interpretations of their current circumstances that trigger emotions – can occur at both unconscious and conscious levels. When appraisals are unconscious, people may feel emotions without knowing why. The same can happen for social cognition more generally. Sometimes thinking is automatic and unintended, and at other times it is under our conscious control. These two modes of thinking are so fundamental that psychologists are starting to refer to them in more generic terms, as System 1 and System 2, respectively (Stanovich & West, 2001). The discovery of two modes of thinking is important because whether thinking is automatic or controlled turns out to influence how and when the contents of mind influence social behavior and social reactions (Chaiken & Trope, 1999). We will see how these two different modes of thinking work as we consider the processes of impression formation, attitudes, and interpersonal attraction. IMPRESSION FORMATION When you come across someone new, how do you come to know him or her? How do you form impressions of others? Does the color or apparent age of their skin matter? Their body size and shape? In other words, do your impressions of new people depend on their ethnicity, age, and gender? How quickly and how accurately can you assess their intelligence or their personality? And do your ulterior motives matter? That is, does it matter whether you simply pass them in the street or whether you are looking for someone to share an apartment? Or whether For more Cengage Learning textbooks, visit www.cengagebrain.co.uk you expect to collaborate with them on an important project? These and other questions guide our discussion of impression formation. Stereotypes Like many others, social psychologists are invested in social justice – fair treatment for all people. This is why considerable energy within the study of social cognition is devoted to the study of stereotypes. If we can understand why, when, and how stereotypes operate, social psychologists argue, we can be better prepared to limit their adverse effects and treat people more fairly. Several decades of research on stereotypes tell us that, whether we like it or not, our initial impressions of others can be biased by our preexisting expectations. As we saw in previous chapters, this is true of perception more generally. Whenever we perceive any object or event, we implicitly categorize it, comparing the incoming information with our memories of previous encounters with similar objects and events. In earlier chapters, we saw that memories are not usually photograph-like reproductions of the original stimuli but simplified reconstructions of our original perceptions. As noted in Chapter 8, such representations or memory structures are called schemas; they are organized beliefs and knowledge about people, objects, events, and situations. The process of searching in memory for the schema that is most consistent with the incoming data is called schematic processing, or top-down thinking. Schemas and schematic processing permit us to organize and process enormous and potentially overwhelming amounts of information very efficiently. Instead of having to perceive and remember all the details of each new object or event, we can simply note that it is like one of our preexisting schemas and encode or remember only its most prominent features. For instance, schematic processing is what allows us to readily categorize consumables as either food or drink and then put one on a plate and the other in a glass. As with objects and events, we also use schemas and schematic processing in our encounters with people. For example, we categorize people into groups based on salient physical attributes – like race, gender, or age – or by their relation to our own social identity – as in 'us versus them'. Schemas can also be more narrowly defined: When someone tells you that you are about to meet someone

who is outgoing, you retrieve your ‘extrovert’ schema in anticipation of the coming encounter. The extrovert schema is a set of interrelated traits such as sociability, warmth, and possibly loudness and impulsiveness. As mentioned in Chapter 8, stereotypes are schemas for classes or subtypes of people. The stereotype of an extrovert, the fan of a rival soccer team, or a young black man is a mini-theory about what particular traits or behaviors go with certain other traits or behaviors. We focus on stereotypes in this section because they are a kind of person schema that has farreaching consequences for impression formation. You

should keep in mind, though, that in addition to schemas for classes of people, we also have schemas for particular individuals, such as the president of the United States or our parents. And as discussed in Chapter 13, we also have a self-schema or schema about ourselves – a set of organized self-concepts stored in memory (Markus, 1977). When you see a job advertisement for a peer counselor, for instance, you can evaluate the match between your counselor schema and your self-schema to decide whether you should apply for the job. Automatic stereotype activation The associations conveyed within stereotypes – for example, that young black males are hostile, that women are passive, or that old people are slow – can become overlearned and automatic. We saw in Chapter 6 that through repeated practice, driving a car becomes so habitual and automatic that we scarcely need to devote any conscious attention to it. A similar process happens with repeated exposure to stereotypes about people: They, too, can become habitual and automatic, operating outside conscious awareness. Experiments that demonstrate the automaticity of stereotypes rely on priming techniques. You will recall from Chapter 8 that priming refers to the incidental activation of schemas by situational contexts. Beyond effects on memory, we saw in Chapter 17 that priming can also influence social behavior: Simply exposing people to words like adhere, comply, and conform increased the likelihood that they would later conform to a unanimous majority. Priming can also activate stereotypes automatically, outside conscious awareness. In one experiment, participants were given a purported test of language ability called the ‘Scrambled Sentence Test’. Each of 30 items on the test consisted of five words. Participants were told to use any four of the five words to construct a grammatically correct sentence as quickly as possible. There were actually two versions of the Scrambled Sentence Test. The critical version primed the elderly stereotype by including words like old, gray, Florida, retired, and bingo. The other version contained words unrelated to the elderly stereotype (such as thirsty, clean, private). Participants took part in the study one at a time. When they finished the Scrambled Sentence Test, the experimenter excused them and directed them toward the elevator. Only after participants left the laboratory did the researchers assess the impact of the elderly stereotype: Those primed with the elderly stereotype actually walked more slowly down the hall to the elevator! Priming the elderly stereotype – which includes the idea that old people are slow – influenced the behavior of young people at a nonconscious level. We know that it’s the stereotype at work here because none of the critical words made reference to speed or time directly. We also know that the effect occurred at a nonconscious level because completing the Scrambled Sentence Test does not produce conscious awareness of IMPRESSION FORMATION ª DAVID CRAUSBY / ALAMY Many types of advertising can activate stereotypes of women and trigger sexist behavior. any theme or stereotype. It is viewed simply as a test of language ability (Bargh, Chen, & Burrows, 1996). The connection between stereotype activation and stereotypic behavior is so reliable that simple physical actions can also activate stereotypic thinking. In one experiment, university students subtly induced to move slowly were more likely to apply stereotypes about the elderly, and those subtly induced to move in a portly manner were

more likely to apply stereotypes about overweight people, whereas those who moved in an ordinary way didn't apply either stereotype (Mussweiler, 2006). One major source of primed stereotypes is the visual media – television, movies, billboards, and the like. In Chapter 11, we saw that exposure to media violence clearly increases children's aggressive behavior. The same holds for exposure to media stereotypes. By now you've come to recognize that the people you see in the visual mass media are hardly representative of people in the real world. People on television, for instance, are younger, slimmer, and more attractive than people you come across in your hometown. Portrayals of women are especially stereotyped. Many times women are portrayed simply as sex objects valued only for their physical appearance. Although exposure to media stereotypes of women may seem harmless, it does damage. In Chapter 10, we saw how such media promote eating disorders in girls and women. More generally, people who watch a lot of television endorse more sexist attitudes toward women (Gerbner, Gross, Morgan, & Signorielli, 1986). But that's simply a correlation. Maybe television does not cause sexism. An experiment that manipulated television exposure provides the necessary causal evidence. The researchers used television advertisements (drawn from regular U.S. prime-time broadcasts) to prime the stereotype of women as sex objects in one group of men. A separate control group watched other, nonsexist TV ads. All the men were later asked to interview a woman for a job as a research assistant. Compared with men in the control group, those primed by TV ads to think of women in stereotypical terms

652 CHAPTER 18 SOCIAL COGNITION chose more sexist questions when interviewing the female job candidate and behaved in a more sexualized manner toward her (Rudman & Borgida, 1995). Stereotypes can also be activated through nonconscious priming. We saw in Chapter 11 that very brief, subliminal exposure to pictures of spiders and snakes (less than 30 milliseconds) can produce physiological arousal and aversive feelings in phobics, even though the phobics could not report having seen anything frightening. The same holds for stereotypes. In one experiment, participants (who were not black) were shown photographs of young, male faces that were either white or black for less than 30 milliseconds, too fast for conscious awareness. These nonconscious, subliminal primes were embedded within a tedious computer task. The computer was rigged so that after participants had spent considerable time on the task, it produced an error message: 'F11 error: failure saving data'. It then informed participants that they would need to do the entire computer task over again. Hidden video cameras recorded participants' facial reactions to this news. Those primed with black faces reacted to the computer error with more hostility. Here, priming the young black male stereotype – which includes the idea that young black males are hostile – automatically generated hostile behavior in unsuspecting participants (Bargh et al., 1996). In fact, people don't even have to personally endorse the stereotype to be affected by it: Stereotypic behavior was activated equally so for those who scored high and low on questionnaire measures of racist attitudes (see also Devine, 1989; Fazio, Jackson, Dunton, & Williams, 1995). So simply encountering a person can activate a stereotype as we categorize that person by ethnicity, age, or gender, or as 'us versus them'. But when we categorize others, do we also evaluate them? Experiments suggest that we do. Evidence that automatically activated racial categories carry emotional evaluations comes from a ª JOEL GORDON Nonconscious exposure to photographs like these is sufficient to activate stereotypes and influence social behavior. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk series of studies in which black and white university students viewed faces of many ethnic backgrounds, including black and white faces. For black students, white faces represent an out-group, whereas the reverse is true for white students.

The faces were embedded within a word evaluation task in which participants were asked to indicate whether a given adjective (such as attractive, likeable, annoying, or offensive) was either ‘good’ or ‘bad’ and to make this judgment as quickly and as accurately as possible. Participants made these judgments for dozens of words while the experimenters recorded their reaction times. The results of this study are shown in Figure 18.1. For white participants, viewing black faces sped responses to negative words. The opposite was true for black participants: Viewing white faces sped responses to negative words (Fazio et al., 1995). These findings suggest that when we categorize others as members of an out-group (‘them’ as opposed to ‘us’), we simultaneously and automatically activate negative associations, which facilitates negative responses. Corroborating evidence comes from a study that used brain imaging (see Chapter 2). Both black and white participants viewed photographs of unfamiliar black and white faces several times. Imaging data showed that initial exposure to all faces produced activation in the amygdala, an area of the brain that is involved in monitoring emotion-eliciting stimuli at a nonconscious level (see Chapter 11). On reexposure to these same faces, amygdala activation lessened for in-group faces, whereas it remained high for out-group faces (Hart et al., 2000). These data suggest that unfamiliar faces in general, regardless of racial category, are initially perceived as threatening. Over time, however, this threat response abates for those who are ‘like us’ but not for those who are ‘not like us’. Stereotypes and information processing Research confirms that stereotypes, like schemas more generally, help us process information. For example, if people are explicitly instructed to remember as much information as they can about a person, they actually remember less than if they are simply told to try to form an impression (Hamilton, 1979). This is because the instruction to form an impression induces them to search for relevant schemas or stereotypes that help them organize and recall material better. Without stereotypes, then, we would be overwhelmed by the information that inundates us. If you had no way to organize or access your expectations about different types of people, you would be extraordinarily slow to form impressions of them. But the price we pay for the efficiency that stereotypes bring are biases in our perceptions and our memories of the information given and in the inferences we ª JOEL GORDON

40 0 Milliseconds –20 –40 –60 –80 –100 –120 Positive Negative Positive Negative European American Participants Figure 18.1 Automatic Stereotype Activation. These two graphs plot the mean response times for classifying positive and negative adjectives as good or bad when preceded by photos of African American and European American faces. Higher scores indicate faster responses. Notice that for European American participants, the difference in response times for the positive and negative words is greater when preceded by African American faces, with negative judgments made faster. The reverse pattern emerged for African American participants – their negative judgments were facilitated by viewing European American faces. These data indicate that classifying another person as in a racial ‘out-group’ automatically carries with it negative evaluations. (Adaptation of Figure 1 on p. 1018 from R. H. Fazio, J. R. Jackson, B. C. Dunton, & C. J. Williams (1995), ‘Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline?’ in Journal of Personality and Social Psychology, 69, 1013–1027. Copyright © 1995 by the American Psychological Association. Adapted with permission.) make. Consider, for example, the impression you form of Jim from the following observations of his behavior: Jim left the house to get some stationery. He walked out into the sun-filled street with two of his friends, basking in the sun as he walked. Jim entered the stationery store, which was full of people. Jim talked with an acquaintance while he waited to catch the clerk’s eye. On his way out, he stopped to chat with a school friend who was just coming into the store. Leaving the store, he walked toward

the school. On his way he met the girl to whom he had been introduced the night before. They talked for a short while, and then Jim left for school. After school, Jim left the classroom alone. Leaving the school, he started on his long walk home. The street was brilliantly filled with sunshine. Jim walked down the street on the shady side. Coming down the street toward him, he saw the pretty girl whom he had met on the previous evening. Jim crossed the street and entered a candy store. The store was crowded with students, and he noticed a few familiar faces. Jim waited quietly until he caught the counterman's eye and then gave his order. Taking his drink, he sat down at a side table. When he had finished his drink, he went home. (Luchins, 1957, pp. 34–35) For more Cengage Learning textbooks, visit www.cengagebrain.co.uk IMPRESSION FORMATION What impression do you have of Jim? Do you think of him as friendly and outgoing or as shy and introverted? If you think of him as friendly, you agree with 78 percent of people who read this description. But examine the description closely; it is actually composed of two very different portraits. Up to the sentence that begins 'After school, Jim left', Jim is portrayed in several situations as fairly friendly. After that point, however, a nearly identical set of situations shows him to be much more of a loner. Whereas 95 percent of the people who are shown only the first half of the description rate Jim as friendly, just 3 percent of the people who are shown only the second half do so. Thus, in the combined description, Jim's friendliness dominates the overall impression. But when people read the same description with the unfriendly half of the paragraph appearing first, only 18 percent rate Jim as friendly; his unfriendly behavior leaves the major impression (see Table 18.1). This study illustrates the primacy effect: In general, the first information we receive has the greater impact on our overall impressions. The primacy effect has been found repeatedly in several kinds of studies of impression formation, including studies using real rather than hypothetical individuals (Jones, 1990). For example, people who watched a male student attempt to solve a series of difficult multiplechoice problems were asked to assess his general ability (Jones, Rock, Shaver, Goethals, & Ward, 1968). European American Photo African American Photo African American Participants Table 18.1 Schematic Processing and the Primacy Effect Once a schema of Jim has been established, later information is assimilated into it. (A. Luchens (1957) 'Primary Recovery in Impression Formation', in The Order of Presentation Persuasion, edited by C. I. Hovland, pp. 34–35. Yale University Press.) Conditions Percentage Rating Jim as Friendly Friendly description only Friendly first – unfriendly last Unfriendly first – friendly last Unfriendly description only 3

654 CHAPTER 18 SOCIAL COGNITION Although the student always solved exactly 15 of the 30 problems correctly, he was judged more capable if the successes came mostly at the beginning of the series than if they came near the end. Moreover, when asked to recall how many problems the student had solved, participants who had seen the 15 successes bunched at the beginning estimated an average of 21, but participants who had seen the successes at the end estimated an average of 13. Although several factors contribute to the primacy effect, it appears to be primarily a consequence of schematic processing or top-down thinking. When we are first attempting to form our impressions of a person, we actively search in memory for the schemas or stereotypes that best match the incoming data. Within a few moments we make a preliminary decision: This person is extroverted, or this person is smart (or some such judgment). We then assimilate any further information to that judgment and dismiss discrepant information as not being representative of the person we have come to know. For example, when asked to reconcile the apparent contradictions in Jim's behavior, participants sometimes say that Jim is really friendly but was probably tired by the end of the day (Luchins, 1957). Our stereotype of extroverts, activated by Jim's initial

behaviors, shapes our perception of all subsequent data about Jim. More generally, our subsequent perceptions become schema-driven and therefore relatively impervious to new data. There is thus a great deal of truth in the conventional warning that first impressions are important. Stereotypes also help us make inferences, which means to make judgments that go beyond the information given. A classic study by Solomon Asch in 1946 illustrates this effect. To get a sense of the study, form an impression in your mind of Sam, someone described as ‘intelligent, skillful, industrious, cold, determined, practical, and cautious’. Based on the impression you have now formed, do you think that Sam is generous? Could you ask him to lend you his car for the day? If you think not, you agree with the participants in Asch’s original study: Only 9 percent ª DMITRIY SHIRONOSOV j DREAMSTIME.COM The first information we receive has a greater impact on our overall impressions than later information. This is why people usually wear business suits to interview for a job. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk inferred that a person was generous, given these traits. But what if Sam was described as ‘intelligent, skillful, industrious, warm, determined, practical, and cautious?’ Only one trait differs: Cold is replaced by warm. Now would you think that Sam is generous? Probably so. A full 91 percent of those in Asch’s original study inferred generosity from the same trait constellation that included warm instead of cold. So although no information is given about Sam’s likely generosity, we can use our expectations or stereotypes about warm or cold people to go beyond what’s given and make an inference. Studies like Asch’s have also been done with real rather than hypothetical individuals. For instance, students told that an upcoming guest lecturer was ‘rather cold’ came to evaluate him quite negatively, whereas other students told that this same guest lecturer was ‘rather warm’ came to evaluate him quite favorably, even though they observed the same lecturer behaving in the same way (Kelley, 1950). The bottom line here is that advance reputations are hard to shake! Stereotypes about gender and race have also been found to shape our interpretations of other people’s behavior. Suppose you learn that someone performed exceptionally well on a math test. Studies show that if that someone is male, most people think he’s smart, whereas if she’s female, they think she got lucky by studying the right material (Deaux, 1984; Swim & Sanna, 1996). Likewise, when whites hear that a black man punched someone, they tend to conclude that he’s aggressive, but if they learn that a white man punched someone, they tend to wonder what provoked him (Hewstone, 1990; Pettigrew, 1979). In these examples, we see that information consistent with a stereotype is taken as diagnostic of that person’s underlying ability or personality, whereas information inconsistent with a stereotype is dismissed as not characteristic of them. Similar evidence comes from the experiment, described earlier, in which one group of men was primed by viewing TV ads with stereotypic images of women. In a later wordrecognition task (disguised as a separate study), primed men, compared with men who were not primed, were faster to recognize sexist words (like babe and bimbo) and slower to recognize nonsexist words (like mother and sister) (Rudman & Borgida, 1995). Simply through media exposure, these men were primed to see the world through the lens of the activated gender stereotype. The outcomes of stereotypic information processing can be deadly. In 1999, four New York City police officers ordered Amadou Diallo to stop because he matched the description of a crime suspect. When Diallo, an immigrant from Ghana, reached for his pocket, one of the police officers shouted ‘Gun!’ The rest opened fire. Only after the shooting stopped did it become clear that Diallo had simply reached for his wallet. Diallo’s death raised public outage and sharp criticism of racial bias. Like the tragic death of Kitty Genovese decades earlier (see Chapter 17), Diallo’s death also sparked social psychologists into action.

A series of clever laboratory experiments confirmed that split-second decisions are especially likely to be shaped by stereotypes. When participants facing a fast-paced computer task are asked to distinguish between images of guns and harmless objects (hand tools), they are more likely to falsely identify harmless objects as a guns if those object are preceded by black faces rather than white faces. This splitsecond weapon bias is so reliable that it shows up even when people actively try to avoid showing any sort of racial bias (Payne, 2006). To sum up, stereotypes (like top-down, schematic processing more generally) determine how we perceive, recall, and interpret information about people. So, as we form impressions of others, we don't simply take in the available information about them and process it in an unbiased manner. Instead, we filter incoming information through our preexisting stereotypes and motives and actively construct our perceptions, memories, and inferences. Making matters worse, the effects of stereotypes on perception and thinking often remain invisible to us: We often take our constructions to be direct and unbiased representations of reality! In other words, we rarely see the role of stereotypes in shaping our interpretations but instead believe that we simply 'call it like it is'. You can begin to see how entrenched and persistent stereotypes can be: Even if initially incorrect, people can come to believe that a stereotype is 'true' because they construct – and see – a world in which it is true. Self-fulfilling stereotypes Stereotypes can also be like omens – they can predict the future. But this is not because stereotypes are necessarily true. Rather, once activated, stereotypes can set in motion a chain of behavioral processes that serve to draw out from others behavior that confirms the initial stereotype, an effect called the self-fulfilling prophecy (Jussim, 1991; Rosenthal & Jacobson, 1968; Snyder, Tanke, & Berscheid, 1977). This works because stereotypes don't just reside in our heads. They leak out in our actions. To get a feel for this, suppose that women who attend university in a neighboring city have the reputation for being snobs. In actuality, most are quite friendly, but your sources tell you differently. How will you act toward a student from that university when you cross paths with her before a football game? Most likely you'll look away. Why should you bother to smile and say hello to a snob? And how will she act? Now that you've given her the cold shoulder, she'll probably do the same. And now that you see her cold, aloof manner, you'll take that as proof positive that she is a snob and fail to see your own role in producing this evidence! So your stereotype of women from that university, although initially wrongly applied to the woman you met, shaped your own behavior, which in turn shaped her behavior, which in turn provided behavioral confirmation for your initially erroneous stereotype. Beliefs have a way of becoming reality. In a classic study illustrating this process, investigators first noted that white job interviewers displayed a less   friendly manner when interviewing black job applicants than when interviewing white applicants. They hypothesized that this could cause black applicants to come off less well in the interviews. To test this hypothesis, they trained interviewers to reproduce both the less friendly and the more friendly interviewing styles. Applicants (all white) were then videotaped while being interviewed by an interviewer using one of these two styles. Judges who viewed the videotapes rated applicants who had been interviewed in a less friendly manner much lower on their interview performance compared with those who had been interviewed in the friendlier manner (Word, Zanna, & Cooper, 1974). The study thus confirmed the hypothesis that people who hold stereotypes can interact in ways that actually evoke the stereotyped behaviors that sustain their biased beliefs. Self-fulfilling prophecies can occur completely outside conscious awareness. Earlier we saw that when people's stereotypes about blacks were primed through brief, subliminal exposure to young black male faces, they were more likely to act in a hostile manner. Is this hostile behavior potent enough to draw out hostility from others? Another experiment tested this

possibility. The same priming procedure was used for one person in a pair before the two played a potentially frustrating game with each other. Replicating the first study, those who had been primed with black faces showed greater hostility than those primed with white faces. Plus, as the self-fulfilling prophecy predicts, the partners of those primed with black faces (who were not themselves primed) also showed greater hostility than those whose partners were primed with white faces. Moreover, the primed participants saw their partners as hostile but did not see their own role in drawing that hostility out (Chen & Bargh, 1997). These data suggest that the mere presence of a stereotyped person can activate stereotypes that soon become self-fulfilling. Stereotypes that we hold about our own group can also be self-fulfilling. A classic experiment on this topic sheds light on racial differences on standardized tests of intelligence. When university students are primed with racial stereotypes – which include the idea that blacks are intellectually inferior – black students perform worse than white students on difficult academic tests. But when no racial stereotype is activated, blacks perform equal to whites (Steele & Aronson, 1995). The same holds for the stereotype that women are bad at math: When the stereotype is activated, women perform worse than men on difficult math tests. When it is not activated, women perform equal to men (Spencer, Steele, & Quinn, 1999). These experiments illustrate the self-fulfilling nature of stereotypes that can be applied to one's own group. The phenomenon is called stereotype threat, which refers to how the mere threat of being identified with a stereotype can raise an individual's anxiety level, which in turn degrades his or her performance (Steele, 1997). Stereotype threat quickly became one of the most widely studied

656 CHAPTER 18 SOCIAL COGNITION topics within contemporary social psychology. The effect is reliable and is attributed to the added mental load born by targets of stereotypes within testing situations. That is, targets of stereotypes experience undue stress, actively monitor their performance, and try to suppress negative thoughts and feelings, processes that combine to reduce working memory capacity and derail test performance (Schmader & Johns, 2003; Schmader, Johns, & Forbes, 2008). Fortunately, there's reason for hope. Simply learning about stereotype threat and disconnecting societal stereotypes from one's own ability and test-taking experience can eliminate the effect altogether (Johns, Schmader & Martens, 2005). Individuation As we've seen, stereotypes can be activated automatically, simply by seeing someone's face. Plus, once activated, stereotypes can influence our thinking and behavior in ways that actually draw out stereotype-confirming behaviors from ourselves and from others. (For a review of the various cognitive and behavioral effects of stereotypes, see the Concept Review Table.) If the effects of stereotypes are so automatic and far-reaching, can we ever truly come to know another person accurately? In the 1960s, Martin Luther King Jr. expressed a similar yearning to be free from the pernicious effects of stereotypes. In his famous speech entitled 'I Have a Dream', King voiced his hope that black children might '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'. Dr. King was actually describing a process that social psychologists call individuation, which means assessing an individual's personal qualities on a person-by-person basis. Fortunately, Martin Luther King Jr.'s dream can CONCEPT REVIEW TABLE Summary of the effects of stereotypes Cognitive Effects

1. Automatic evaluation
2. Biased perceptions of incoming information
3. Biased memories
4. Biased inferences and interpretations Behavioral Effects

5. Automatic emotion expression
6. Automatic behavioral tendencies
7. Self-fulfilling prophecies For more Cengage Learning textbooks, visit www.cengagebrain.co.uk come true: We can sometimes override the effects of stereotypes and form more accurate and personalized impressions of others through individuation. But typically, this more accurate impression formation requires a more thoughtful and controlled mode of thinking. Triggers of individuation When and how do we move beyond stereotyping to individuation? One influential model of impression formation, called the continuum model, describes the full continuum of processes from stereotyping to individuation (Fiske, Lin, & Neuberg, 1999). The model is described by the flow chart shown in Figure 18.2. You can see in this flow chart that the automatic stereotyping that we've discussed so far is the first psychological process set in motion when we first encounter a person (called 'initial categorization' in Figure 18.2). Within milliseconds of an initial encounter, we have already automatically and nonconsciously categorized the person in terms of gender, ethnicity, and age. These categories are used first because they (1) apply to all people, (2) are available immediately and physically, even in suboptimal viewing conditions (Cloutier, Mason & Macrae, 2005), and (3) often have important cultural meanings relevant to our interaction goals. Whether we move beyond simple stereotyping depends on whether the person we've encountered has any personal relevance to us. If, for instance, you are deciding whether to share an apartment with this new person, you most certainly will devote more attention to forming your impression. As Figure 18.2 shows, the first thing that we do once we move into this more thoughtful process of impression formation is try to confirm our initial categorization. Return to that potential housemate. You might want to know whether the young man you've just met is a 'typical 20-year-old guy'. Will he be interested in loud parties, fast cars, and frequent dates? Or is he more of a loner, truly engaged with his studies? You notice that his backpack is overflowing with texts for the most advanced courses, and he tells you that he spends most evenings at the library. So the available information suggests that the initial categorization won't do. Now you find another, narrower category for him: A hardworking student. This is called 'recategorization' in Figure 18.2. Because you are also engaged with your studies most evenings, you suspect that you'd be compatible housemates. You decide to share the apartment. Over time, and as you learn more about your new housemate, you come to recognize that being a hardworking student is just one facet of his character. He also plays the saxophone, competes in triathlons, and has traveled extensively across South America. Only now do you recognize that he doesn't fit any one category fully, so instead you form an impression of him by piecing together and integrating all the different things you know about him, a process called 'piecemeal integration' in

encounter target person Initial categorization occurs immediately upon perceiving person allocate Attention to target attributes if successful Confirmation categorization occurs when available information is interpreted to be consistent or nondiagnostic with respect to current category if unsuccessful if successful Recategorization occurs when a person is interpreted as categorizable but not with respect to current category; includes accessing new category, subcategory, exemplar, or self-concept if unsuccessful Piecemeal integration attribute-by-attribute analysis of person, occurs when the target is interpreted as not easily categorizable category-based affect, cognitions,

and behavioral tendencies piecemeal-based affect, cognitions, and behavioral tendencies possible public expression of response YES Is further assessment of target required? NO Figure 18.2 Impression Formation: From Stereotypes to Individuation. This flow chart presents Fiske and Neuberg's continuum model of impression formation. It shows the continuum of impression formation processes ranging from stereotyping to individuation as a function of attention and interpretation. Here the most individuating stage is called 'piecemeal integration'. The information available about the person perceived and the perceivers' motivational goals determine how attention and interpretations combine to shape the process of impression formation. (From S. T. Friske, M. Lin, & S. L. Neuberg (1999). 'The continuum model: Ten years later', in S. Chaiken & Y.Trope (eds.), Dual-process Theories in Social Psychology, pp. 231–254. New York: Guilford Press.) For more Cengage Learning textbooks, visit www.cengagebrain.co.uk IMPRESSION FORMATION Figure 18.2. So, when ample information about someone becomes available, and when we are motivated and able to pay close attention to that information, we eventually judge people 'by the content of their character'. And that's individuation. The most important thing to note, however, is how slowly we move away from stereotyping and categorization toward individuation. In fact, many social psychologists would argue that we never fully abandon categorizing people, however well intentioned we are, because doing so provides a wealth of information with little mental effort. Even so, when others become personally relevant to us – that is, if our future outcomes depend on them in some way – we become motivated to make more thoughtful, accurate, and individuated impressions of them. Is person of minimal interest or relevance? NO YES Structures that promote individuation The importance of personal relevance carries a lesson for those who aim to reduce stereotyping in their schools, businesses, or other organizations. Studies show that structured cooperative contact between members of different social groups reduces stereotyping and fosters individuation. In one study, participants met another student who was identified as a former mental patient. At first, participants expected this new acquaintance to be somewhat depressed, fearful, and insecure, traits that fit the stereotype of a former mental patient. Next, the experimenters randomly assigned participants to either cooperate with this new acquaintance to jointly learn new material on an assigned topic or to simply study that new material independently but in the same room as the new acquaintance. Compared with those who didn't cooperate on the learning task, those who did cooperate Stop moved away from their initial stereotyped impressions and judged the new acquaintance more positively, presumably because the cooperative structure of the task provided the opportunity to individuate. Perhaps more importantly, participants extended their favorable

658 CHAPTER 18 SOCIAL COGNITION impressions of their learning partner to former mental patients in general (Desforges et al., 1991). So if you find yourself teaching or leading a group of others who seem to be divided by their stereotyped impressions of one another, keep in mind that you can greatly reduce the harmful effects of stereotyping by structuring in the need to cooperate or share consequential information. Cooperation, of course, has other benefits as well. It can also produce more successful individual and group outcomes (Aronson & Thibodeau, 1992). Controlling stereotypes As we've seen, sometimes we are drawn toward the individuation end of the impression formation continuum because we are motivated to get to know other people personally and accurately and have ample time to do so. Other times, we may not so much be drawn to individuate as we are motivated to avoid being prejudiced by the biasing effects of stereotypes. In fact, simply knowing that stereotypes can produce biases in our judgments and actions (as you now know) can create a strong desire to override stereotypic responses and apply more egalitarian

responses instead. Luckily, laboratory studies have shown that we can consciously override the influence of stereotypes, but only if certain conditions are met: (1) being aware of the potential negative influence of stereotypes, (2) being motivated to reduce prejudice, and (3) having sufficient attentional resources to engage in controlled and deliberate thinking. Although researchers continue to debate how and how often such conditions can be met in day-to-day life (Bargh, 1999), studies show that certain people, through mental effort, can overcome the harmful effects of stereotypes, even in brief encounters (Bodenhausen, Macrea & Sherman, 1999; Devine & Monteith, 1999). Recent studies even show that people who are highly identified with the goal of being nonprejudiced can also overcome the automatic activation of stereotypes, like that shown in Figure 18.1 (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Payne, 2006). These findings are important. They tell us that we need not be slaves to automatically activated social stereotypes. Instead, with the proper combination of motivation and controlled thought, we can learn to treat people justly, based on 'the content of their character,' a manner in which we all deserve to be treated. Self categorization Just as the continuum model, depicted Figure 18.2, describes the spectrum from how we stereotype others to seeing them as unique individuals, there's also a spectrum of how we view ourselves. According to the social identity approach, there's a spectrum of ways in which we can identify ourselves: as a human being, as a member of a social group, or as an individual. Our identities can shift across this continuum from moment to moment, depending on the situation or our current motives. This is an important point, because whichever social identity is most salient tends to influence our behavior (Hornsey, 2008; Tajfel & Turner, 1986; Turner et al., 1987). We saw this effect back in Chapter 17, as a prominent explanation for how people behave when deindividuated (Postmes & Spears, 1998). It becomes relevant again now, because researchers working from a social identity approach suggest that we represent our social groups as mental prototypes, akin to stereotypes. As a particular group identity becomes salient, for instance, being a student at your university or a citizen of your country, your actions and expressed attitudes come to reflect the prototype you hold in mind about that group. Although identifying with a particular social group is often a source of self-esteem, it can also leave you open to negative feelings. For instance, people can feel collective guilt for the past moral shortcomings of groups that are important to them. Consider, for instance, how Germans, even those born after World War II, can feel collective guilt about the Holocaust or how Americans and Europeans alike can feel collective guilt about the enslavement of Africans. Such 'guilt by association' is a product of self-categorization and motivates efforts to compensate outgroup members for the wrongful treatment they experienced in the past (Doosje, Branscombe, Spears, & Manstead, 1998). Attributions Another process through which we form impressions of others – even ourselves – involves understanding the causes of their behavior. Suppose, for example, that a famous athlete endorses a particular brand of athletic shoes on television. Why does he do it? Does he really like those shoes, or is he doing it for the money? You see a woman give a $5 donation to Planned Parenthood. Why? Is she altruistic? Was she being pressured? Did she need a tax write-off? Does she believe in the work of the organization? Each of these cases creates an attribution problem. We witness some behavior and must decide to which of many possible causes the action should be attributed. Attribution refers to our intuitive attempts to infer the causes of behavior. It has long been a central topic in social psychology and continues to be today (Heider, 1958; Kelley, 1967; Malle, 1999; Trope & Gaunt, 1999; Kammrath, Mendoza-Denton & Mischel, 2005). The fundamental attribution error revisited As the two preceding examples illustrate, one of the major attribution tasks we face is deciding whether an observed behavior reflects something about the person or

something about the situation in which we observed the person. The former option is called an internal or dispositional attribution. We infer that something about the person is primarily responsible for the behavior (for instance, the athlete really loves those shoes). Here, disposition refers to a person's beliefs, attitudes, and personality characteristics. An alternative choice is called an external or situational attribution. We infer that some external cause is

ª DON SMETZER/GETTY IMAGES/STONE Is this woman giving money to the Salvation Army because she supports its work, because she feels pressured, or because she is generally altruistic? primarily responsible for the behavior (for instance, money, social norms, threats). Although the simple distinction between dispositional and situational attributions has been criticized as being too simplistic (Kammrath, Mendoza-Denton, & Mischel, 2005; Mischel, 2004), this dichotomy has been one of the most influential within social psychology. Fritz Heider, the founder of attribution theory, noted that an individual's behavior is so compelling to us that we take it as a face-value representation of a person and give insufficient weight to the circumstances surrounding it (1958). Research has confirmed Heider's observation. We underestimate the situational causes of behavior, jumping too easily to conclusions about the person's disposition. If we observe someone behaving aggressively, we too readily assume that he or she has an aggressive personality, rather than concluding that the situation might have provoked similar aggression in anyone. To put it another way, we have a schema of cause and effect for human behavior that gives too much weight to the person and too little to the situation. In Chapter 17, you For more Cengage Learning textbooks, visit www.cengagebrain.co.uk IMPRESSION FORMATION learned one of the foremost lessons of social psychology: that situations are, in fact, powerful causes of people's social behavior. You also learned a corollary lesson: that in our everyday reasoning, we often overlook the causal power of situations. And you will recall that this corollary lesson has a name of its own: the fundamental attribution error. Formally stated, the fundamental attribution error occurs when we underestimate the situational influences on behavior and assume that some personal characteristic of the individual is responsible (Ross, 1977). In the classic early studies that revealed this bias, participants read a debater's speech that either supported or attacked Cuban leader Fidel Castro. The participants were explicitly told that the debate coach had assigned each debater one side of the issue or the other; the debater had no choice as to which side to argue. Despite this knowledge, when asked to estimate the debater's actual attitude toward Castro, participants inferred a position close to the one argued in the debate. In other words, the participants made a dispositional attribution, even though situational forces were fully sufficient to account for the behavior (Jones & Harris, 1967). This effect is quite powerful. Even when the participants themselves designate which side of the issue a speaker is to argue, they still tend to see him or her as actually holding that opinion (Gilbert & Jones, 1986). The effect occurs even if the presentations are deliberately designed to be drab and unenthusiastic and the speaker simply reads a transcribed version of the speech in a monotone and uses no gestures (Schneider & Miller, 1975). An experiment designed as a quiz game illustrates how both participants and observers make the same fundamental attribution error in the same setting. Pairs of university students were recruited to take part in a question-and-answer game testing general knowledge. One member of the pair was randomly assigned to be the questioner and to make up ten difficult questions to which he or she knew the answers (such as 'What is the world's largest glacier?'). The other participant acted as the contestant and attempted to answer the questions. When the contestant was unable to answer a question, the questioner gave the answer. In a reenactment of the study, observers watched the contest. After the game, both participants and observers were asked to rate the level

of general knowledge possessed by the questioner and the contestant, relative to that possessed by the ‘average student’. Note that participants and observers all knew that the roles of questioner and contestant had been assigned randomly. As Figure 18.3 shows, questioners judged both themselves and the contestant to be about average in level of general knowledge. But contestants rated the questioner as superior and themselves as inferior to the average student. They attributed the outcome of the game to their (and the questioner’s) level of knowledge rather than taking into account the overwhelming situational advantage enjoyed by the questioner, who was able to decide which questions

660 CHAPTER 18 SOCIAL COGNITION Questioner rated Contestant rated 80 Mean rating of general knowledge 40 0 Questioner Contestant Observer Source of rating Figure 18.3 The Fundamental Attribution Error. Ratings of questioners and contestants after they had participated in a quiz game. The questioner is rated as superior by both the contestant and observers even though the questioner had an overwhelming situational advantage. Both contestants and observers gave too much weight to dispositional causes and too little to situational causes. (After Ross, Amabile, & Steinmetz, 1977) to ask and to omit any questions to which he or she did not know the answer. Observers, aware that the questioner could ask questions that neither they nor the contestant could answer, rated the questioner’s level of knowledge even higher. In other words, both contestants and observers gave too much weight to disposition and too little to the situation – the fundamental attribution error (Ross, Amabile, & Steinmetz, 1977). Causal attributions, like other aspects of impression formation, have also been found to be governed by two different modes of thinking, one more automatic and unintentional, and another more controlled and deliberate. This turns out to influence how frequently the fundamental attribution error occurs. To understand why, it’s helpful to break the attribution process down into stages. One framework divides the process of causal attribution into at least two parts. The first step is a dispositional inference (what trait does this action imply?), and the second is situational correction (what situational constraints might have caused that action?). Experiments suggest that the first step of dispositional inference is more automatic than the second step of situational correction (Gilbert & Malone, 1995; Gilbert, Pelham, & Krull, 1988) This suggests that we make the fundamental attribution error so often because it is an overlearned, automatic process that frequently occurs outside conscious awareness. Only when we have the cognitive resources to think deliberately and carefully do we correct our initial, automatic dispositional attributions with reference to plausible situational causes. Although it may seem encouraging that effortful thinking can override the For more Cengage Learning textbooks, visit www.cengagebrain.co.uk fundamental attribution error, we need to recognize that most often, as we’re forming our impressions of others, we are cognitively busy, thinking about many things at once, like planning our next move, anticipating the other’s reaction, and managing the impression that others form of us. All this ‘cognitive busyness’ means that we will continue to commit the fundamental attribution error time and again (Gilbert & Malone, 1995). INTERIM SUMMARY l Through schematic processing, we perceive and interpret incoming information in terms of simplified memory structures called schemas. Schemas are mini-theories about everyday objects and events that allow us to process information efficiently. Stereotypes are schemas about groups of people. l Through repeated exposure, stereotypes can become habitual and automatic, operating outside conscious awareness. l Because schemas and stereotypes simplify reality, schematic processing produces biases and errors in our processing of social information. In forming impressions of other people, for example, we are prone to the primacy effect: The first information we receive evokes an initial schema and, hence, becomes more

powerful in determining our impression than does later information. Schemas and stereotypes also govern our inferences. l Once activated, stereotypes can set in motion a chain of behavioral processes that serve to draw out from ourselves and others behavior that confirms the initial stereotype, an effect called the self-fulfilling prophecy. This behavioral sequence can occur completely outside conscious awareness. l Individuation is the process of forming impressions of others by assessing their personal qualities on a personby-person basis. The continuum model of impression formation, presented in Figure 18.2, details when and how people come to individuate others. Cooperative activities can promote individuation. l Although stereotypes are activated automatically, under the right conditions they can also be controlled through effortful thinking. l Attribution is the process by which we interpret and explain the behavior of other people. One major attribution task is to decide whether someone's action should be attributed to dispositional causes (the person's personality or attitudes) or to situational causes (social forces or other external circumstances). We tend to give too much weight to dispositional factors and too little to situational factors, a bias called the fundamental attribution error.

CUTTING EDGE RESEARCH Culture and Cognition For centuries, Western philosophers and psychologists have discussed cognitive processes – or modes of thinking – as if they were the same for all normal adults. In fact, much of the research and thinking on social cognition conveyed within this very chapter has made a similar assumption: that the cognitive processes described are universal, characteristic of humans everywhere. Although it's obvious that different cultures practice different social customs, these were thought to be irrelevant to 'basic' cognitive processes like categorization and causal reasoning. Cutting edge research in social cognition shatters this assumption and argues that divergent social systems in fact create and reinforce distinct systems of thought (Nisbett, Peng, Choi, & Norenzayan, 2001). The first evidence that aspects of social cognition might not be universal after all took aim at the fundamental attribution error itself. Early studies showed that whereas Americans have long been shown to explain other people's behavior in terms of dispositional attributions, Hindu Indians and Chinese people preferred to explain similar behavior in terms of situational attributions (Miller, 1984, Morris & Peng, 1994; Norenzayan & Nisbett, 2000). In addition, the classic study in which participants read a speech that another person had been assigned to produce (such as supporting or denouncing Cuban leader Fidel Castro) was replicated with both Korean and American students (Choi, Nisbett, & Norenzayan, 1999). Here the speechwriter had no choice of topics, so it is a mistake to conclude that his or her attitude corresponds to the arguments within the speech. Even so, like Americans, Koreans inferred that the speechwriter held the position he or she was advocating, a dispositional inference that reflects the fundamental attribution error. Yet Americans and Koreans responded quite differently if they had the opportunity to 'walk in the shoes' of the speechwriter before making their judgments. In a variation of the classic study, they were each first assigned to prepare a speech themselves using a set of arguments given by the experimenter, an experience that should highlight the strong situational constraints on attitude expression. With this personal experience salient, Koreans no longer made dispositional inferences, whereas Americans continued to do so just the same. From this and other studies, the authors conclude that East–West differences in the commission of the fundamental attribution error do not so much reflect cultural differences in the propensity to make dispositional attributions. Indeed, both Koreans and Americans made the dispositional error in the standard condition. Instead, cultural differences in attribution reflect a greater sensitivity to contexts and situational constraints among East Asians when those situational constraints are salient (Choi et al., 1999). Evidence continues to mount that East Asians, more than Westerners,

pay more attention to contexts and situations (Masuda & Nisbett, 2001) and are more influenced by them (Ji, Peng, & Nisbett, 2000). These and countless other East–West differences in styles of thinking are now taken as For more Cengage Learning textbooks, visit www.cengagebrain.co.uk IMPRESSION FORMATION evidence that East Asians engage in more holistic thinking, whereas Westerners engage in more analytic thinking (Nisbett et al., 2001). Holistic thought is defined as an orientation toward the entire context or field and assigning causality to it, making relatively little use of categories and formal logic, and relying instead on dialectical reasoning, which involves recognizing and transcending apparent contradictions. By contrast, analytic thought is defined as an orientation toward objects, detached from their contexts, with much use of categories and formal logic and the avoidance of contradiction. How did such wide-scale differences in thinking styles emerge? From long-standing different social practices, leading researchers say. In Chapter 1, we introduced the distinction between collectivist and individualist cultures. Collectivist cultures, you will recall, emphasize the fundamental connectedness and interdependence among people, whereas individualist cultures emphasize the fundamental separateness and independence of individuals. Indeed, we saw in Chapter 11 that the very emotions people experience and express reflect their cultural upbringing. Collectivist tendencies can be traced back to the ancient Chinese focus on social harmony and collective agency, whereas individualist tendencies can be traced back to the ancient Greek focus on personal agency. These quite divergent views of human agency not only infused East–West differences in social practices but also shaped their respective advances in science, mathematics, and philosophy. The legacy of these distinct ancient orientations toward the locus of causality includes the cultural differences in cognition that we find evidence of today: that contemporary East Asians are more holistic in their thinking, whereas contemporary Westerners are more analytical (Nisbett et al., 2001). The ways we use our brains, then, are not universal or dictated by biology. Rather, our styles of thinking are malleable, shaped by those in our culture who came millennia before us, and reinforced by contemporary social practices. These recent advances in the understanding of culture and cognition undermine all prior claims of universality made within the study of cognition and social cognition. Indeed, one of the most influential texts on social cognition in the 1980s was written by one of the scholars who now leads the foray into culture and cognition. Listen to what he says about his past work: Two decades ago, [I] wrote a book with Lee Ross entitled, modestly, Human Inference (Nisbett & Ross, 1980). Roy D’Andrade, a distinguished cognitive anthropologist, read the book and told [me] he thought it was a ‘good ethnography’. [I] was shocked and dismayed. But [I] now wholeheartedly agree with D’Andrade’s contention about the limits of research conducted in a single culture. Psychologists who choose not to do cross-cultural psychology may have chosen to be ethnographers instead. (Nisbett et al., 2001, p. 306)

662 CHAPTER 18 SOCIAL COGNITION CRITICAL THINKING QUESTIONS 1 Suppose you perform badly on an exam. You know it’s because you hardly studied at all, but your professor has made the fundamental attribution error and comes to conclude that you’re not too bright. Some social psychologists have claimed that the fundamental attribution error is self-erasing – that, over time, it ceases to be an error. Building on the example of your bad test performance, use the concepts of the self-fulfilling prophecy and stereotype threat to explain the logic of this claim. 2 Think of someone you have come to know well over the past few months or years. Did your initial impressions of this person match your current impressions? If not, can you see how stereotypes and categorizations might have influenced your initial impressions? Can you trace your increasing individuation of this person through the continuum model, presented in Figure 18.2. ATTITUDES So

far our discussion of social cognition has focused on the processes of perceiving, thinking, and impression formation. With the concept of attitude, we take a broader look at how feelings and opinions influence social cognition and social behavior. Attitudes are likes and dislikes – favorable or unfavorable evaluations of and reactions to objects, people, situations, or other aspects of the world, including abstract ideas and social policies. We often express our attitudes in statements of opinion: 'I love grapefruit' or 'I can't stand liberals.' But even though attitudes express feelings, they are often linked to cognitions – specifically, to beliefs about the attitude objects ('Grapefruit contain lots of vitamin C' or 'Liberals just want to tax and spend'). Moreover, attitudes are sometimes linked to the actions we take with respect to the attitude objects ('I eat a grapefruit every morning' or 'I never vote for liberal candidates'). Accordingly, social psychologists usually conceive of attitudes as comprising a cognitive component, an affective component, and a behavioral component. For example, in studying negative attitudes toward groups, social psychologists often distinguish between negative stereotypes (negative beliefs and perceptions about a group – the cognitive component), prejudice (negative feelings toward the group – the affective component), and discrimination (negative actions against members of the group – the behavioral component). Some theorists prefer to define an attitude as only the cognitive and affective components; others include only the affective component. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk But despite differing definitions, all share a concern with the interrelationships among the pertinent beliefs, feelings, and behaviors. Research on attitudes has kept social psychologists busy for decades. As early as the 1950s, attitudes were dubbed 'the primary building stone in the edifice of social psychology' (Allport, 1954). But why exactly are attitudes so important? Two reasons are most critical. The first reason is that, at least in democratic societies, people talk about their attitudes a lot. They also ask about others' attitudes a lot. When we leave the movie theater, for instance, the first thing we ask our companion is 'Did you like it?' After we've introduced our new heartthrob to our friends, we ask, 'What do you think?' Facing a critical election, we ask respected others, 'Who will you vote for?' Marketing and scientific polls turn such queries into formal assessments of public opinion, predicting everything from the box office success of Hollywood movies to the outcomes of presidential elections, and describing everything from month-by-month ratings of public support for a country's elected leader to the public's attitude toward teaching evolutionary theory within elementary schools. The second reason attitudes have been so central to social psychology and cause for so much talk and polling is a key underlying assumption: that people's attitudes predict their behavior. This assumption is so widely accepted that it has served as the base for psychology's neighboring behavioral science of economics and underlies other rational views of human nature. This assumption can be decomposed into three parts: First, human behavior is intentional and reflects individual preferences. This is the heart of utility theory within economics and the notion of free will within philosophy. Second, attitudes represent preferences. And third, to predict behavior, we can simply look at attitudes. A corollary to this logic is that if we wish to change people's behaviors, we should start by changing their attitudes. As we'll see, though, the core assumption that attitudes predict behavior has been vigorously questioned by social psychologists. Even so, a long-standing agenda among social psychologists has been to find ways to change people's attitudes. You will recall from Chapter 17 that one way this agenda has been pursued is through social influence techniques. In particular, research on self-justification shows that we can sometimes change people's attitudes by slyly inducing them to engage in some hypocritical (counterattitudinal) action, like telling another person that a boring task was fun. Reference groups can also play a role in changing people's attitudes, as was illustrated in the study of Bennington College students. Here we take up more

direct approaches to attitude change, those undertaken through persuasive communication, like political speeches, advertisements, sermons, and other types of formal or informal lobbying.

Persuasive communication Just as the practices of Nazi Germany under Hitler created interest in obedience to authority (see Chapter 17), so did wartime propaganda efforts prompt the study ofpersuasive communication. Intensive research began in the late 1940s at Yale University, where investigators sought to determine the characteristics of successful persuasive communicators, successful communications, and the kinds of people who are most easily persuaded (Hovland, Janis, & Kelley, 1953). As research on these topics continued over the years, a number of interesting phenomena were discovered, but few general principles emerged. The results became increasingly complex and difficult to summarize, and every conclusion seemed to require several 'it depends' qualifications. Beginning in the 1980s, however, interest in the two modes of cognitive processing that we've been discussing – one more automatic and effortless and the other more controlled and effortful – gave rise to new theories of persuasion that provided a more unified framework for analyzing persuasive communication (Chaiken, 1987; Chen & Chaiken, 1999; Petty & Cacioppo, 1981, 1986; Petty & Wegener, 1999). The elaboration likelihood model The elaboration likelihood model is one of the more prominent dual-process theories of persuasion (Petty & Cacioppo, 1981, 1986; Petty & Wegener, 1999). It aims to predict when certain aspects of a persuasive communication – like argument strength and source credibility – will matter and when they won't. A key idea within this model is that people experience a continuum of elaboration likelihood. In simple terms, this means that sometimes we are motivated and able to pay attention, think, and elaborate on the persuasive message, and at other times we are not. Which end of this continuum we're on at any given moment determines the cognitive processes that govern persuasion. So, according to the elaboration likelihood model, if we're at the high end of the continuum – willing and able to think deeply – then persuasion is said to follow a central route, relying on controlled and effortful thinking; if we're at the low end of the continuum – for whatever reasons, not willing or able to think deeply – then persuasion is said to follow a peripheral route, relying on automatic and effortless thinking. The central route to persuasion Persuasion is said to follow the central route when an individual mentally responds to – and elaborates on – the persuasive communication. The central route to persuasion is taken only when the individual is motivated to generate thoughts in response to the substantive content of a communication and has the ability and opportunity to do so. These thoughts can be about the content of the communication itself or about other aspects of the situation, such as the credibility of the communicator. If the communication evokes thoughts that support the position being advocated, the individual will move toward that position; if the communication evokes unsupportive thoughts (such as counterarguments or disparaging thoughts about the communicator), the individual will remain unconvinced or even shift away from the position being advocated (Greenwald, 1968; Petty, Ostrom, & Brock, 1981). A number of studies provide evidence that effortful thought accounts for the central route to persuasion. In one, each participant read a communication containing arguments about a controversial issue and wrote a onesentence reaction to each argument. One week later, the participants were unexpectedly given a memory test asking them to recall both the arguments in the communication and their written reactions to those arguments. ª ALENA YAKUSHEVA j DREAMSTIME.COM Priests and politicians are among those who seek to present persuasive messages that will change the attitudes and behavior of their audiences. ª VASILY SMIRNOV j DREAMSTIME.COM ATTITUDES For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

664 CHAPTER 18 SOCIAL COGNITION Participants' opinions on the issue were assessed before receiving the communication and again at the time of the memory test. The results showed that the amount of opinion change produced by the communication was significantly correlated with both the supportiveness of participants' reactions to the communication and with their later recall of those reactions, but it was not significantly correlated with their recall of the arguments themselves (Love & Greenwald, 1978). This experiment not only supports the central route to persuasion but also explains what had previously been a puzzling observation: that the persistence of opinion change is often unrelated to an individual's memory of the arguments that produced that change. In a sense, then, the central route to persuasion can be considered self-persuasion produced by the thoughts that the person generates while reading, listening to, or even just anticipating the communication. Those thoughts turn out to be more influential than the communication itself. The peripheral route to persuasion Persuasion is said to follow the peripheral route when the individual responds to non-content cues in a communication (such as the sheer number of arguments it contains) or to the context of the communication (such as the credibility of the communicator or the pleasantness of the surroundings). The peripheral route is taken when the individual is – for whatever reason – unable or unwilling to do the cognitive work required to carefully evaluate the content of the communication. Classical conditioning (which you learned about in Chapter 7) is one of the most primitive means of changing attitudes through the peripheral route. Advertisers use classical conditioning quite a lot, by repeatedly pairing their initially neutral or unknown product with images or ideas that are known to produce positive feelings, like attractive people or beautiful scenery. Through classical conditioning – a peripheral route to persuasion – viewers should come to hold positive attitudes toward the new product as well. Another peripheral route to persuasion relies on heuristics, or rules of thumb (discussed in Chapter 9) to infer the validity of persuasive messages. Examples of such rules might include 'Messages with many arguments are more likely to be valid than messages with few arguments', 'Politicians always lie', and 'University professors know what they are talking about' (Chaiken, 1980, 1987; Eagly & Chaiken, 1984). Communications that follow these rules of thumb can be persuasive – even if their substantive content is unconvincing – to the extent that listeners are unlikely to elaborate on the information given. Central or peripheral? Several factors can influence which route – central or peripheral – will be taken. One such factor is personal involvement. If a communication addresses an issue in which the individual has a personal stake, he or she is more likely to attend carefully to the arguments. In such a case, the individual is also likely to have a rich store of prior information and opinions on the issue. On the other hand, if an issue has no personal relevance for the individual, he or she is not likely to make much of an effort either to support or refute arguments about it. What happens then? The elaboration likelihood model has been tested in several studies. In one rather complex study, university students read an essay allegedly written by the chair of a university committee charged with advising the chancellor on changes in academic policy. The essay proposed that the university institute a comprehensive examination that every student would have to pass before being permitted to graduate. To manipulate the students' involvement in the issue, half of them were told that any policy changes adopted by the chancellor would be instituted the next year (high involvement), and the other half were told that any changes would take effect in ten years (low involvement). Different forms of the essay were also used. Some contained strong arguments, others weak ones. Some contained only three arguments, others nine. The post-communication attitudes of students in the high-involvement conditions are shown in Figure 18.4a. It can be seen that strong arguments produced more

favorable attitudes overall than did weak arguments. But more important, nine strong arguments produced greater agreement with the essay than did three strong arguments, whereas nine weak arguments produced less agreement than did three weak arguments. How can we make sense of these patterns? The elaboration likelihood model predicts that students in the high-involvement conditions will be motivated to process the essay's substantive arguments and thus generate topic-relevant cognitive responses. This is the central route of persuasion, which holds that strong arguments will evoke more supportive cognitive responses and fewer counterarguments than will weak arguments and hence will produce more agreement with the essay – as, indeed, they did. Moreover, nine strong arguments should be more persuasive than three strong arguments because the more strong arguments the individual encounters, the more supportive cognitive responses he or she will generate. In contrast, nine weak arguments should be less persuasive than three weak arguments because the more weak arguments the individual encounters, the more counterarguments he or she will generate. These predictions are in accordance with the findings displayed in Figure 18.4a. As shown in Figure 18.4b, a different pattern emerges for students in the low-involvement conditions, those who were told that any policy changes would take effect in ten years. Here the elaboration likelihood model predicts that students with such low-involvement will not be motivated to scrutinize the essay's arguments closely and

will instead rely on simple heuristics to evaluate its merits and form their attitudes. This is the peripheral route, which holds that an individual in this setting will not even bother to determine whether the arguments are strong or weak but will simply invoke the heuristic rule 'Messages with many arguments are more likely to be valid than messages with few arguments.' Thus, strong arguments will be no more effective than weak arguments, and nine arguments will be more persuasive than three arguments – regardless of whether they are strong or weak. This is precisely the pattern shown in Figure 18.4b: Overall, there were no significant differences between strong and weak arguments, but nine arguments were more effective than three arguments in both conditions (Petty & Cacioppo, 1984). An experiment that varied the expertise of the communicator rather than the number of arguments found similar results: Participants in the high-involvement conditions were more influenced by the strength of the arguments, but participants in the low-involvement conditions relied more on the heuristic 'Arguments made by an expert are more valid than arguments made by a nonexpert' (Petty, Cacioppo, & Goldman, 1981). Although much research on persuasion has been conducted in laboratories, there has always been an interest in the practical applications of the findings. An example is an educational program designed to inoculate adolescents against peer pressure to smoke. Older adolescents conducted sessions in which they taught younger adolescents how to generate counterarguments. For example, in role-playing sessions they were taught to respond to being called 'chicken' for not taking a cigarette by saying things like 'I'd be a real chicken if I smoked just to impress you.' They were also taught to respond to advertisements implying that free-thinking people smoke by saying, 'People aren't really free-thinking if they're hooked on tobacco.' Several inoculation sessions were held, and records were kept of how many of the students smoked from the beginning of the study through the next few years. The results showed that inoculated students were half as likely to smoke as students at a matched school that used a more typical smoking education program (McAlister, Perry, Killen, Slinkard, & Maccoby, 1980). Similar programs have been designed to inoculate elementary school children against being taken in by deceptive television commercials (Cohen, 1980; Feshbach, 1980). Counterarguing, or directly rebutting the message arguments is indeed the most effective strategy for resisting persuasion. Surprisingly, another common response to

persuasive attempts, attitude bolstering, defined as generating thoughts to support your original attitude without directly refuting message arguments, is not an effective resistance strategy (Jacks & Cameron, 2003). Attitudes and behavior As we've said, a major reason for studying attitudes is the expectation that they will enable us to predict a person's High involvement 8 4 Post-communication attitude 9 Number of arguments Weak arguments Strong arguments Low involvement 8 4 Post-communication attitude 9 Number of arguments Weak arguments Strong arguments a) Post-communication attitudes through

the central route. When individuals have

high involvement in the issue, nine strong

arguments produce more agreement than

three strong arguments, but nine weak

arguments produce less agreement than

three weak arguments. b) Post-communication attitudes through

the peripheral route. When individuals

have low involvement in the issue, nine

arguments produce more agreement than

three arguments, regardless of whether

the arguments are strong or weak. Figure 18.4 A Test of the Elaboration Likelihood Model. (R. E. Petty & J. T. Cacioppo (1984), 'The effects of involvement on responses to arguments quantity and quality, central and peripheral routes to persuasion', in Journal of Personality & Social Psychology, 46:6–81. Copyright © 1984 by the American Psychological Association. Adapted with permission.) ATTITUDES For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

666 CHAPTER 18 SOCIAL COGNITION ª SUSAN VAN ETTEN/PHOTOEDIT Whether an ad like this coaxes a girl to smoke Newport cigarettes depends on the thoughts that the ad prompts in her. If she thinks the woman is attractive, she is more likely to begin smoking. But if she thinks the ad exploits women, she is less likely to begin smoking. future behavior. A political candidate is interested in a survey of voters' opinions only if the attitudes expressed relate to voting behavior. The assumption that a person's attitudes determine his or her behavior is deeply ingrained in Western thinking, and in many instances the assumption holds. But this central assumption was shaken to the core in the late 1960s by a scathing scholarly critique (Wicker, 1969). The critique reviewed more than 40 studies that tested the relationship between attitudes and behavior. A classic study conducted during the 1930s illustrated the problem. A white professor traveled across the United States with a young Chinese couple. At that time there was strong prejudice against Asian people, and there were no laws against racial discrimination in public accommodations. The three travelers stopped at more than 200 hotels, motels, and restaurants and were served at all

the restaurants and all but one of the hotels and motels without a problem. Later, a letter was sent to all of the restaurants and hotels asking them whether they would accept a Chinese couple as guests. Of the 128 replies received, 92 percent said that they would not. In other words, these proprietors expressed attitudes For more Cengage Learning textbooks, visit www.cengagebrain.co.uk that were much more prejudiced than their actual behavior (LaPiere, 1934). Although the study by LaPiere is not without problems, critics used this and many other studies to raise the question of whether attitudes predict behavior at all. Other critics even recommended that social psychologists abandon the attitude concept altogether and focus instead on the situational determinants of behavior. The logic of this recommendation, you will see, parallels the fundamental attribution error: that even social psychologists had overestimated the causal force of dispositional factors – like attitudes – on determining behavior and underestimated the causal force of situations. Certainly people's behavior is determined by many factors other than their attitudes. One obvious factor is the degree of constraint in the situation: We must often act in ways that are not consistent with what we feel or believe. As children, we ate vegetables that we detested, and as adults we attend lectures and dinner parties that we consider boring. In Chapter 17, we saw the power of situations time and again. In the Asch study, participants conformed to the majority, even when they knew the majority was wrong. In the Milgram study, participants delivered shocks even when doing so went against their consciences. And in the racial discrimination study just described, the prejudiced proprietors may have found it difficult to act on their prejudices when actually faced with the Chinese couple seeking service. Peer pressure can exert similar influences on behavior. For example, an adolescent's attitude toward marijuana is moderately correlated with his or her actual use of marijuana, but the number of marijuana-using friends the teenager has is an even better predictor of his or her marijuana use (Andrews & Kandel, 1979). Can you see a similarity here to the classic Asch study? Far from ending research on attitudes, this critical challenge to the assumption that attitudes predict behavior served to kindle a new generation of research on attitudes that aimed to specify the special conditions under which attitudes do in fact predict behavior. In general, attitudes have been found to predict behavior best when (1) they are strong and consistent, (2) they are specifically related to the behavior being predicted, (3) they are based on the person's direct experience, and (4) the individual is aware of his or her attitudes. We will look briefly at each of these factors. Strong and consistent attitudes Strong and consistent attitudes predict behavior better than weak or ambivalent ones. Many voters experience ambivalence because they are under pressure from friends and associates who do not agree with one another. For example, a Jewish businessperson belongs to an ethnic group that generally holds liberal political positions, but she also belongs to a business community that frequently holds conservative political positions, particularly on

economic issues. When it comes time to vote, she is subjected to conflicting pressures. Ambivalence and conflict can arise from within the person as well. When the affective and cognitive components of an attitude are not consistent – for example, when we like something that we know is bad for us – it is often difficult to predict behavior (Norman, 1975). In general, when the components of an attitude are clear and consistent, they better predict behavior (Millar & Tesser, 1989). Attitudes specifically related to behavior Another finding is that attitudes that are specifically related to the behavior being assessed predict the behavior better than attitudes that are only generally related to it. For example, in one study students in the United States, Britain, and Sweden were asked both about their general attitudes toward nuclear war and about their specific attitudes toward nuclear war, nuclear weapons, and nuclear power plants. Specific

attitudes were much better predictors of activist behaviors (such as writing a letter to a newspaper or signing a petition) than more general attitudes (Newcomb, Rabow, & Hernandez, 1992). Attitudes based on direct experience Attitudes based on direct experience predict behavior better than attitudes formed from reading or hearing about an issue (Fazio, 1990). For example, during a housing shortage at a university, many entering students had to spend the first few weeks of the term in crowded temporary housing. Researchers measured students' attitudes toward the housing crisis and their willingness to sign and distribute petitions or join committees to study it. For students who actually had to live in the temporary housing, there was a high correlation between their attitude toward the crisis and their willingness to take action to solve it. But for students who had not directly experienced the temporary housing, no such correlation existed (Regan & Fazio, 1977). Likewise, researchers have discovered that people who've already decided how to act show a stronger link between their attitudes and behavior compared to those who have held off on making such a decision. Direct experience, then, can also be the mental experience of an implemental or planning mind-set (Henderson, de Liver, & Gollwitzer, 2008). Awareness Finally, there is evidence that people who are more aware of their attitudes are more likely to behave in ways that are consistent with those attitudes. This is true of people who are generally more focused on their thoughts and feelings as part of their personalities (Scheier, Buss, & Buss, 1978), as well as of people who are placed in situations designed to make them more aware, such as in ATTITUDES front of a mirror or video camera (Carver & Scheier, 1981; Hutton & Baumeister, 1992; Pryor et al., 1977). INTERIM SUMMARY l Attitudes are likes and dislikes – favorable or unfavorable evaluations of and reactions to objects, people, events, or ideas. Attitudes have a cognitive component, an affective component, and a behavioral component. l The elaboration likelihood model states that persuasion can take two routes in producing belief and attitude change: the central route, in which the individual responds to the substantive arguments of a communication, and the peripheral route, in which the individual responds to non-content cues in a communication (such as the number of arguments) or to context cues (such as the credibility of the communicator or the pleasantness of the surroundings). l A communication about an issue of personal relevance is more likely to generate thoughts in response to the communication's substantive arguments. When an issue is of little personal relevance or people are unwilling or unable to respond to the substantive content of a communication, they tend to use simple heuristics – rules of thumb – to judge the merits of the communication. l Attitudes tend to predict behavior best when they are (1) strong and consistent, (2) specifically related to the behavior being predicted, and (3) based on the person's direct experience on planned actions, as well as (4) when the individual is aware of his or her attitudes. CRITICAL THINKING QUESTIONS 1 Suppose you are running for political office. What sort of advertisements should you design if you suspect that your audience will be distracted? What sort of ads should you design if you suspect that your audience will be motivated to think deeply? Can you appeal to both audiences in the same ad? 2 Many young people are addicted to shopping at the expense of other interests. Based on what you now know about attitude change and the links between attitudes and behavior, identify at least two ways that you could prevent your younger sister from spending all of her time and money shopping for the latest advertised fashions.

668 CHAPTER 18 SOCIAL COGNITION INTERPERSONAL ATTRACTION In our discussion of attitudes, we distinguished between the cognitive and affective components – thinking and feeling. There is, however, no area of human behavior in which cognitions and affects are intertwined in a more complex way than in interpersonal attraction: liking, loving, and sexual desire. Research in these

areas has often confirmed common knowledge, but it has also produced a number of surprises and contradictions. We begin with liking – namely, friendship and the early stages of more intimate relationships. Liking and attraction We cannot all be beautiful film stars, but when two such people become a couple, they do illustrate several of the determinants of interpersonal attraction that apply even to us ordinary mortals: physical attractiveness, proximity, familiarity, and similarity. As the high divorce rate among contemporary couples also illustrates, however, these factors are not always sufficient to sustain a long-term relationship. Physical attractiveness To most of us, there is something mildly undemocratic about the possibility that a person's physical appearance is a determinant of how well others like him or her. Unlike character and personality, physical appearance is a factor over which we seemingly have little control, and so it seems unfair to use it as a criterion for liking someone. In fact, surveys conducted over a span of several decades have shown that people do not rank physical attractiveness as very important in their liking of other people (Buss & Barnes, 1986; Hudson & Hoyt, 1981; Perrin, 1921; Tesser & Brodie, 1971). But research on actual behavior shows otherwise (Brehm, 1992). One group of psychologists set up a 'computer dance' in which college men and women were randomly paired. At intermission, everyone filled out an anonymous questionnaire evaluating his or her date. In addition, the experimenters obtained several personality test scores for each person, as well as an independent estimate of his or her physical attractiveness. The results showed that only physical attractiveness played a role in how much the person was liked by his or her partner. None of the measures of intelligence, social skills, or personality was related to the partners' liking for each other (Walster, Aronson, Abrahams, & Rottman, 1966). This experiment has been replicated many times, and in each case the results have been similar to those just described. Moreover, the importance of physical attractiveness has been found to operate not only on first dates but on subsequent dates (Mathes, 1975) and in marriages (Margolin & White, 1987) as well. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk Why is physical attractiveness so important? Part of the reason is that our social standing and self-esteem are enhanced when we are seen with physically attractive companions. Both men and women are rated more favorably when they are with an attractive romantic partner or friend than when they are with an unattractive companion (Sheposh, Deming, & Young, 1977; Sigall & Landy, 1973). But there is an interesting twist to this: Both men and women are rated less favorably when they are seen with a stranger who is physically more attractive than they are (Kernis & Wheeler, 1981). Apparently they suffer by comparison with the other person. This effect has been found in other studies. For example, male college students who had just watched a television show starring beautiful young women gave lower attractiveness ratings to a photograph of a more typical-looking woman (Kendrick & Gutierres, 1980). Fortunately, there is hope for the unbeautiful among us. First of all, physical attractiveness appears to decline in importance when a permanent partner is being chosen (Stroebe, Insko, Thompson, & Layton, 1971). And, as we will see, several other factors can work in our favor. Proximity An examination of 5,000 marriage license applications in Philadelphia in the 1930s found that one-third of the couples lived within five blocks of each other (Rubin, 1973). Research shows that the best single predictor of whether two people are friends is proximity, or how far apart they live. In a study of friendship patterns in apartment houses, residents were asked to name the three people they saw socially most often. Residents mentioned 41 percent of neighbors who lived in the apartment next door, 22 percent of those who lived two doors away (about 30 feet), and only 10 percent of those who lived at the other end of the hall (Festinger, Schachter, & Back, 1950). Studies of college dormitories show the same effect. After a full academic year, students who shared an apartment were twice as likely to be friends compared to those who were simply on the same floor, and those on the same

floor were more than twice as likely to be friends compare to those simply in the same building (Priest & Sawyer, 1967). There are cases, of course, in which neighbors and roommates hate one another, and the major exception to the friendship-promoting effect of proximity seems to occur when there are initial antagonisms. In a test of this, a participant waited in a laboratory with a female confederate who treated the participant pleasantly or unpleasantly. When she was pleasant, the closer she sat to the participant, the better she was liked; when she was unpleasant, the closer she sat to the participant, the less she was liked. Proximity simply increased the intensity of the initial reaction (Schiffenbauer & Schiavo, 1976). But because most initial encounters probably range from neutral to pleasant, the most frequent result of sustained proximity is friendship.

ª ISTOCKPHOTO.COM/ALEXANDER HAFEMANN These neighbors are likely to form a friendship simply because of proximity. Those who believe in miracles when it comes to matters of the heart may believe that there is a perfect mate chosen for each of us waiting to be discovered somewhere in the world. But if this is true, the far greater miracle is the frequency with which fate conspires to place this person within walking distance. Familiarity One of the major reasons that proximity creates liking is that it increases familiarity, and there is now abundant evidence for what is called the mere exposure effect, the finding that familiarity all by itself increases liking (Zajonc, 1968). This familiarity-breeds-liking effect is a very general phenomenon. For example, rats repeatedly exposed to the music of either Mozart or Schoenberg enhance their preference for the composer they have heard, and humans repeatedly exposed to selected nonsense syllables or Chinese characters come to prefer those they have seen most often. The effect occurs even when individuals are unaware that they have been previously exposed to the stimuli (Bornstein, 1992; Bornstein & D'Agostino, 1992; Moreland & Zajonc, 1979; Wilson, 1979). More germane to the present discussion is a study in which participants were exposed to pictures of faces and then asked how much they thought they would like the person shown. The more frequently they had seen a particular face, the more they said they liked it and thought they would like the person (Zajonc, 1968) (see Figure 18.5). Similar results are obtained when individuals are exposed to one another in real life (Moreland & Beach, 1992). In one clever demonstration of the mere exposure effect, the investigators took photographs of college women and then prepared prints of both the original face and its mirror image. These prints were then shown to the women themselves, their female friends, and their lovers. The women themselves preferred the mirror-image prints by a margin of 68 to 32 percent, but the friends and INTERPERSONAL ATTRACTION 4 Rating of attractiveness 3.5 2.5 0 2 10 Number of times photograph was seen Figure 18.5 Familiarity Breeds Liking. People were asked to rate photographs of unknown faces according to how much they thought they would like the person. The lowest ratings of liking were made by those who had never seen the photograph before; the highest ratings of liking were made by those who had seen the photograph most often. This illustrates the mere exposure effect. (After Zajonc, 1968) lovers preferred the nonreversed prints by a margin of 61 to 39 percent (Mita, Dermer, & Knight, 1977). Can you guess why? The take-home message is clear. If you are not beautiful or you find your admiration of someone unreciprocated, simply find ways to be nearby. Proximity and familiarity may just work in your favor. Similarity An old saying declares that opposites attract, and lovers are fond of recounting how different they are from each other: 'I love boating, but she prefers mountain climbing.' 'I'm in engineering, but he's a history student.' What such lovers overlook is that they both like outdoor activities; they are both preprofessionals; they are both the same nationality, the same religion,

the same social class, and the same educational level; and they are within three years of each other in age and within five IQ points of each other in intelligence. In short, the old saying is mostly false. Research dating all the way back to 1870 supports this conclusion. More than 95 percent of the married couples in the United States are of the same race, and most are of the same religion. Moreover, statistical surveys show that husbands and wives are significantly similar to each other not only in sociological characteristics – such as age, race, religion, education, and socioeconomic class – but also with respect to psychological characteristics like intelligence and physical characteristics such as height and eye color (Rubin, 1973). A study of dating couples finds the same patterns, in addition to finding that couples were also similar in their attitudes about sexual behavior and

sex roles. Moreover, couples who were most similar in background at the beginning of the study were most likely to be together a year later (Hill, Rubin, & Peplau, 1976). Of particular pertinence to our earlier discussion is the finding that couples are closely matched on physical attractiveness as well (Feingold, 1988). For example, in one study, judges rated photographs of each partner of 99 couples for physical attractiveness without knowing who was paired with whom. The physical attractiveness ratings of the couples matched each other significantly more closely than did the ratings of photographs that were randomly paired into couples (Murstein, 1972). Similar results were obtained in a reallife field study in which separate observers rated the physical attractiveness of members of couples in bars and theater lobbies and at social events (Silverman, 1971). This matching of couples on physical attractiveness appears to come about because we weigh a potential partner’s attractiveness against the probability that the person would be willing to pair up with us. Put bluntly, less attractive people seek less attractive partners because they expect to be rejected by someone more attractive than themselves. A study of a video dating service found that both men and women were most likely to pursue a relationship with someone who matched them in physical attractiveness. Only the most attractive people sought dates with the most attractive partners (Folkes, 1982). The overall result of this process is attractiveness similarity: Most of us end up with partners who are about as attractive as we are. But similarities on dimensions other than physical attractiveness are probably even more important over the long-term course of a relationship. A longitudinal study of 135 married couples found that spouses who were more similar to each other in personality also resembled each other more in terms of how much they enjoyed similar daily activities like visiting friends, going out for dinner, and participating in community activities and professional meetings. These couples also reported less marital conflict and greater closeness, friendliness, and marital satisfaction than less similar spouses (Caspi & Herbener, 1990). Recent studies show that even arbitrary and trivial points of similarity produce liking. For instance, reviews of archival records indicate that people disproportionately tend to marry those who share their first or last initials. Likewise, laboratory experiments show that people like others more when those others have been arbitrarily assigned a numeric code, for example 6-15, that includes the month and date of their own birthday, say June 15. The effect can even happen at subliminal levels, completely outside of conscious awareness (Jones, Pelham, Carvallo & Mirenberg, 2004). These surprising findings are interpreted as evidence for implicit egotism. We are non-consciously attracted to people, places and objects that subtly remind us of ourselves. Transference In Chapter 16, you learned about transference, or the tendency for clients to transfer their feelings and assumptions about a particular significant other – like their parent or spouse – onto their therapist. Recent work from a social cognitive perspective applies the concept of transference more generally, arguing that any time we encounter someone new who reminds us of someone who has

been important to us in our past, that sense of recognition influences our perceptions – and indeed our liking – of the ª RON CHAPPLE STUDIOS j DREAMSTIME.COM Partners in successful long-term relationships tend to be similar to each other in characteristics such as age, race, and education, as well as in their interests, personality traits, and even physical attractiveness. ª ISTOCKPHOTO.COM/ED HIDDEN CHAPTER 18 SOCIAL COGNITION For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

new person (Chen & Andersen, 1999). The approach follows the tradition of social cognition because it holds that simply being reminded of someone who has been significant to us in the past automatically activates stored knowledge – or schemas – about that significant other. This, in turn, leads us to process information about the newly encountered person in ways consistent with the activated schema. Laboratory experiments have tested the influence of transference on interpersonal liking. In one study, participants were tested twice. In a pretest session, they identified two of their significant others – one whom they felt good about and one they disliked – and provided several short descriptions of them ('Terry is sincere' or 'Pat likes to go dancing'). More than two weeks later, these same participants were tested again. This time, they learned about a new person – supposedly seated next door – with whom they would soon interact. The descriptions of this new person were rigged to resemble participants' significant others by mirroring some of the descriptions gathered in the pre-test phase. For one experimental group, the new person resembled a liked significant other. For another experimental group, the new person resembled a disliked significant other. To control for the valence of the descriptions used, each was given to another participant as well. For these control groups, the description of the new person resembled somebody else's significant other, not their own. The results are shown in Figure 18.6. When a new person resembled a significant other, he or she is liked or disliked, depending on the participant's attitude toward the significant other – participants even smiled more when the new person resembled their significant other! Additional experiments using this same procedure confirm that this effect of transference on liking is carried by activated schemas. As we learned at the start of this chapter (and in Chapter 8), schemas can be activated (or primed) automatically and, once activated, they influence various aspects of information processing, including memory and inferences. Our schemas for significant others, when triggered by new acquaintances who in some way resemble them, produce all the cognitive and behavioral effects that social psychologists have come to expect (Chen & Andersen, 1999). The take-home message here is that if you want to forge a new friendship or relationship, and not merely recycle an old one, you need to start with a new acquaintance who is like no other. And you should be cautious when someone approaches you and says, 'You remind me of someone.' Loving and mating Love is more than just strong liking. Most of us know people we like very much but do not love, and some of us have felt passionate attraction for someone we did not For more Cengage Learning textbooks, visit www.cengagebrain.co.uk INTERPERSONAL ATTRACTION Positive significant other Negative significant other 4.5 3.5 Experimental Control groups groups Figure 18.6 Transference in Interpersonal Attraction. How much participants liked a new acquaintance depended on whether that new person shared characteristics with the participants' significant others and whether they held positive or negative attitudes about those significant others. Notice that evaluations were more extreme when new acquaintances resembled a participant's own significant other (the experimental groups) than when they resembled someone else's significant other (the control groups). (From S. Chen & S. M. Andersen (1999), 'Relationships from the past in the present: significant-other representations and transference in interpersonal life', in Advances in

Experimental Social Psychology, 31, 123–190. Copyright © 1999, Elsevier Science (USA), reproduced by permission of the publisher.) particularly like. Research confirms these everyday observations. One of the first researchers to study romantic love compiled a number of statements that people thought reflected liking and loving and then constructed separate scales to measure each (Rubin, 1973). Items on the liking scale tap the degree to which the other person is regarded as likable, respected, admired, and having maturity and good judgment. Items on the love scale tap three main themes: a sense of attachment ('It would be hard for me to get along without ——————— '), a sense of caring for the other person ('I would do almost anything for ———————'), and a sense of trust ('I feel that I can confide in ——————— about virtually everything'). The two scales are only moderately correlated: .56 for men and .36 for women. Love and marriage The concept of romantic love is an old one, but the belief that it has much to do with marriage is more recent and far from universal. In some non-Western cultures, marriage is still considered to be a contractual or financial arrangement that has nothing to do with love. In the United States, the link between love and marriage has actually become stronger over time. In 1967, U.S. college students were asked, 'If a man (woman) had all the other qualities you desired, would you marry this person if you

672 CHAPTER 18 SOCIAL COGNITION were not in love with him (her)?' About 65 percent of the men said no, but only 24 percent of the women said no (only 4 percent actually said yes; the majority of the women were undecided) (Kephart, 1967). Feminism was just taking root at that time, and it may be that women were more likely than they are now to consider marriage necessary for financial security. When the survey was repeated in 1984, 85 percent of both men and women said that they would refuse to marry without being in love (Simpson, Campbell, & Berscheid, 1986). Love and self-expansion Why do people fall in love? Why do they forge close, loving relationships? At one level, the answer is obvious – because love feels good! But then you could ask, why does love feel good? Some social psychologists have suggested that a primary motivation for falling in love lies in the urge to expand the self (Aron, Norman, & Aron, 1998). Close relationships are said to produce self-expansion – or increase our potential abilities and resources – in multiple ways. As we become close to another person, we gain access to that person's resources, perspectives, and identities – this might include someone's circle of friends, cooking skills, views on politics or religion, or popularity more generally – each of which can help us to achieve our own goals. People are motivated to expand the self, the reasoning continues, not only to become more able themselves but also because self-expansion, particularly rapid expanding, is exhilarating. So falling in love feels good, this logic suggests, because it produces rapid self-expansion. The researchers tested the association between falling in love and self-expansion by targeting a large group of beginning university students over the fall semester. Every two weeks for ten weeks, these students answered the question, 'Who are you today?' by listing as many selfdescriptive words or phrases as came to mind in a threeminute period. They also answered a number of other questions, including whether they had fallen in love since the last testing session. Entering university students, it so happens, have a very high chance of falling in love in their first semester – a full one-third of them do (Aron, 2002)! This large sample of those 'lucky in love' enabled the researchers to compare selfdescriptions made just prior to falling in love to those made just after. The comparisons provided clear evidence of self-expansion: The diversity of self-descriptions increased significantly after falling in love, an effect that could not be attributed to positive mood. (The self-descriptions of those unlucky in love provided an additional comparison for the degree of change that might be

expected in the absence of love; Aron, Norman, & Aron, 1998.) A corollary to the notion that love produces selfexpansion is the claim that within close relationships, people tend to think about their beloved in the same manner in which they think of the self. That is, the close other becomes fused – even confused – with the self. One study tested the idea that we 'include the other in the self' by asking married participants to choose as quickly and accurately as possible whether each of a large set of personality traits was 'me' or 'not me'. Based on prior testing, the researchers knew that some of those traits were true of the participant's self but not true of their spouse, or true of the spouse but not true of the self. As expected, participants were slower to respond – and made more errors – for traits on which they and their spouse differed (Aron, Aron, Tudor, & Nelson, 1991). So, for instance, if you are not particularly gracious, but your beloved is, when faced with deciding whether the term gracious describes you, you get confused. It takes you a moment to sort out that even though you benefit from your beloved's graciousness, you are not actually gracious yourself! But this confusion is a good thing. Other research has shown that the extent to which couples 'include the other in the self' on a simple pictorial measure (see Figure 18.7) predicts how long they will stay together (Aron, Aron, & Smollan, 1992). Passionate and companionate love Several social scientists have attempted to distinguish among different kinds of love. One of the most widely accepted distinctions is between passionate and companionate love (Hatfield, 1988; Peele, 1988). Passionate love is defined as an intensely emotional state in which 'tender and sexual feelings, elation and pain, anxiety and relief, altruism and jealousy coexist in a confusion of feelings' (Berscheid & Walster, 1974, p. 177). It has been suggested that the experience of passionate love combines physiological arousal with the Self Other Self Other Self Other Self Other Self Other Self Other Self Other Figure 18.7 Including the Other in the Self. People are asked to circle the picture that best describes their relationship. Research has found that the degree to which people include the other in the self predicts how long a relationship will last. (Fig. 1, p. 597, from A. Aron, E. N. Aron, & D. Smollan (1992), 'Inclusion of other in the self scale and the structure of interpersonal closeness', in Journal of Personality and Social Psychology, 63, 596–612. Copyright © 1992 by the American Psychological Association. Reprinted with permission.)

perception that the arousal is evoked by the beloved (Berscheid & Walster, 1974). In contrast, companionate love is defined as 'the affection we feel for those with whom our lives are deeply intertwined' (Hatfield, 1988, p. 205). The characteristics of companionate love are trust, caring, tolerance of the partner's flaws and idiosyncrasies, and an emotional tone of warmth and affection rather than high-pitched emotional passion. As a relationship continues over time, interdependence grows, and the potential for strong emotion actually increases. This can be seen when longtime partners experience intense feelings of loneliness and desire when temporarily separated or in the emotional devastation typically experienced by someone who loses a long-time partner. But, paradoxically, because companionate couples become so compatible and coordinated in their daily routines, the actual frequency of strong emotions is usually fairly low (Berscheid, 1983). Many of the young men and women in the survey cited earlier stated that if love disappears from a marriage, that is sufficient reason to end it. Those who equate love with passionate love, however, are likely to be disappointed. Most successful long-term couples emphasize the companionate elements of their relationship, and both theory and research suggest that the intense feelings that characterize passionate love are unlikely to persist over time (Berscheid, 1983; Solomon & Corbit, 1974). As the sixteenth-century writer Giraldi put it, 'The history of a love affair is in some sense the drama of its fight against time.' This point is illustrated in a study that compared longterm marriages in the United States – where couples claim to marry for love – with marriages in Japan

that had been arranged by the couples' parents. As expected, the American marriages started out with a higher level of expressed love and sexual interest than the Japanese ª RMARMION j DREAMSTIME.COM In later life the passionate component of romantic love tends to become less important than the companionate component. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk INTERPERSONAL ATTRACTION marriages. But the amount of love expressed decreased in both groups until after ten years there were no differences between the two groups. Nevertheless, many couples in this study reported quite gratifying marriages, marriages that had evolved into a deep companionate love characterized by communication between the partners, an equitable division of labor, and equality of decisionmaking power (Blood, 1967). The take-home message is that passionate love might be terrific for starters, but the sustaining forces of a good long-term relationship are less exciting, require more work, and have more to do with equality than with passion. In fact, as we will see shortly, there may even be a built-in incompatibility between passionate and companionate love. The triangular theory of love Other researchers find the strategy of dichotomizing love into two kinds – passionate and companionate – to be too simplistic. One of the more differentiated classifications offered is the triangular theory of love. It divides love into three components: intimacy, passion, and commitment (Sternberg, 1986). Intimacy is the emotional component and involves closeness and sharing of feelings. Passion, the motivational component, consists of sexual attraction and the romantic feeling of being 'in love'. Commitment is the cognitive component; it reflects the intention to remain in the relationship. Combining these three components in different ways yields the eight kinds of relationships shown in Table 18.2. As can be seen, in this scheme passionate love is split into two types: infatuated love and romantic love. Both are characterized by high Table 18.2 The Triangular Theory of Love The three dimensions of love combine to produce eight types of love relationships. (R. Sternberg (1986), 'Triangular Theory of Love', in Psychological Review, 93:119–135. Copyright © 1986 by the American Psychological Association. Adapted by permission.)

Intimacy	Passion	Commitment	Nonlove
Low	Low	Low	Liking
High	Low	Low	Infatuated love
Low	High	Low	Romantic love
High	High	Low	Empty love
Low	Low	High	Companionate love
High	Low	High	Fatuous love
Low	High	High	Consummate love
High	High	High	

674 CHAPTER 18 SOCIAL COGNITION passion and low commitment, but infatuated love is low in intimacy whereas romantic love is high in intimacy. Companionate love is characterized by high intimacy and commitment but low passion. Pair bonding and mating strategies Another approach to romantic and sexual attraction draws on Darwin's theory of evolution. As noted in Chapter 1, evolutionary psychology is concerned with the origins of psychological mechanisms. The key idea is that, just like biological mechanisms, psychological mechanisms must have evolved over millions of years through a process of natural selection. They therefore have a genetic basis and have proved useful to the human species in the past for solving some problems of survival or increasing the chances of reproducing. The interest in evolution among social psychologists has led to a (sometimes controversial) reexamination of several behavioral phenomena. Among these are pair bonding in humans and differences between men and women in sexual behavior and mating strategies. From an evolutionary perspective, men and women mate to produce offspring who will pass their genes along to future generations. To do this, individuals must solve several problems, including (1) winning out over competitors in gaining access to fertile members of the other sex, (2) selecting mates with the greatest reproductive potential, (3) engaging in the necessary social and sexual behavior to achieve conception, (4) preventing the mate from defecting or deserting, and (5) ensuring the survival and reproductive success of one's offspring (Buss, 1994). According

to evolutionary psychologists, humans have evolved to form intense, long-term bonds with a partner to ensure that human offspring survive to reproductive age. As noted in Chapter 3, the more complex an organism's nervous system, the longer the time required to reach maturity. A chimpanzee will be a functioning adult member of its species years before a human of the same age is ready to fend for itself. Accordingly, in the history of our species it has been important to have both parents stick around to defend, provide for, and help rear the young. In contrast to humans, both male and female chimpanzees are quite promiscuous, and males have little or no involvement in rearing the young. Evolutionary psychology further argues that because men and women play different roles in reproduction, the mating tactics and strategies used by the two sexes might also have evolved to be different as well. Because it is theoretically possible for a man to father hundreds of children, it is to his evolutionary advantage to impregnate as many women as possible in order to pass along the greatest number of his own genes. The woman, however, must invest a great deal of time and energy in each birth and can have only a limited number of offspring. It is to her advantage to select a mate who is most For more Cengage Learning textbooks, visit www.cengagebrain.co.uk willing and best able to assist in protecting and raising her children, thereby maximizing the likelihood of passing her genes along to future generations. This reasoning suggests that evolution would have made men more promiscuous and less discriminating in their choice of sexual partners than women. In fact, it has been documented repeatedly that in most societies men are more promiscuous than women, and societies that permit one man to mate with more than one woman far outnumber those in which one woman may mate with many different men (Wilson, 1978). Evolutionary psychology also predicts that a man should prefer to mate with the most fertile young women available because they are most likely to bear his children. A woman should prefer to mate with a man of high social status and solid material resources, one who can give the children the best chance of surviving to adulthood and reproducing in their turn. As a result, evolutionary psychologists predict that men will prefer younger women (with many more fertile years ahead of them), whereas women will prefer older men (who have more resources). This sex difference in mate preference has been reported in surveys given in 37 different cultures (Buss, 1989). More recent research suggests, however, that when people evaluate real-life potential partner instead of stating their general preferences, these sex differences vanish (Eastwick & Finkel, 2008). Evolutionary psychology has not gone unchallenged. Some critics argue that even if a behavioral pattern appears across many or all cultures, it does not necessarily follow that it is programmed into the genes. For example, some universal cross-cultural sex differences may have arisen simply because women had less upper body strength than men and – until very recently in technological societies – were pregnant or nursing during most of their adult lives. This created sex-based divisions of labor in virtually all societies, which placed political power and decision making in the hands of men and confined women to the domestic sphere (Bem, 1993). Greater sexual freedom for men could easily emerge from such power differences. It is often instructive to ask whether evolutionary reasoning could also have predicted a different or opposite outcome. For example, we have seen the argument that a male's ability to produce many hundreds of offspring would create an evolutionary push toward male promiscuity. But the need to ensure that one's offspring survive to reproductive age – the same need that presumably gave rise to human pair bonding in the first place – would provide an opposing evolutionary push toward monogamy. In other words, evolutionary theory could be invoked to explain either male promiscuity or male sexual fidelity. Despite these criticisms, there is no doubt that evolutionary thinking has reinvigorated both personality and

social psychology. There is probably no other single principle in the behavioral sciences with as much potential explanatory power as the principle of evolution. Moreover, the emergence of evolutionary psychology shows once again the important role of biological evidence in contemporary psychology. Even social psychologists who study the processes of social cognition now theorize about how and why our strategies for processing social information might have evolved (Nisbett & Ross, 1980; see also Buss & Kenrick, 1998). INTERIM SUMMARY l Many factors influence whether we will be attracted to a particular individual. The most important are physical attractiveness, proximity, familiarity, similarity, and transference. l Theorists have suggested that one reason people fall in love is that doing so expands the self. l There have been several attempts to classify types of love. Passionate love is characterized by intense and often conflicting emotions, whereas companionate love is characterized by trust, caring, tolerance of the partner's flaws, and an emotional tone of warmth and affection. Another classification of love divides it into the components of intimacy, passion, and commitment. l Evolutionary psychology suggests that humans have evolved to form long-term bonds with a partner because historically such pair bonds operated to ensure the survival of offspring to reproductive age. A more controversial hypothesis from evolutionary psychology is that men and women have evolved to pursue different mating strategies, with men evolving to be more promiscuous and seek out younger women. CRITICAL THINKING QUESTIONS 1 Proximity most often leads to liking because proximity creates familiarity. But why does familiarity – or mere exposure – lead to liking? Provide some possible explanations. 2 Which of the three components of love featured in Sternberg's triangular theory of love is most likely to be associated with self-expansion? Justify your choice. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk RECAP: A TALE OF TWO MODES OF SOCIAL COGNITION RECAP: A TALE OF TWO MODES OF SOCIAL COGNITION The major lesson of this chapter is that, in addition to understanding the power of social situations (the major lesson of Chapter 17), to more fully understand people's social behavior we also need to 'get inside their heads' and examine how they think about others. The field of social cognition takes on this task. It examines the processes by which stereotypes and other social schemas become activated and affect people's thinking and behavior. It also examines the processes by which people can get beyond stereotypes to more accurately know one another. And it examines the processes by which people are persuaded to change their minds and even fall in love. Across these many domains of study, social psychologists have repeatedly found that social cognition – or thinking about others – happens in two modes: One mode is more automatic and outside of conscious awareness, and the other is more effortful and deliberate. This recognition has produced a range of 'dual-process theories' within social psychology. Two theories that received the spotlight in this chapter – the continuum model of impression formation (see Figure 18.2) and the elaboration likelihood model of persuasion – illustrate dual-process perspectives, but there are many other renditions (see Chaiken & Trope, 1999). Recognizing these two modes of thinking helps us better understand and even alter social outcomes. To the extent that we are able and willing to engage in effortful thinking, we can curb stereotyping, avert peripheral routes to persuasion, and minimize transference. But when, for whatever reasons, we are unable to engage in effortful thought – perhaps because we're busy carrying on a conversation, conducting an interview, or trying to manage the impression others form of us – we are more susceptible to various forms of automatic social cognition and behavior. CRITICAL THINKING QUESTIONS 1 We all succumb to stereotyping others at times. Identify a time when you stereotyped someone. Now examine the circumstances. Were there situational forces that pulled for automatic thinking? What conditions would have been required for you to engage in effortful thinking? 2 Think of a time when someone tried to persuade you to her or his opinion, but

you resisted. Considering the persuasion attempt, was that person expecting you to be in an automatic or deliberate mode of thinking? In actuality, was your thinking automatic or deliberate?

676 CHAPTER 18 SOCIAL COGNITION SEEING BOTH SIDES SHOULD WE TRUST AUTOMATIC THINKING? Yes we should trust automatic thinking Ap Dijksterhuis, Radboud University Nijmegen Well, yes. Most of the time. Automatic processes are generally predictable, and indeed reliable. The attitudes we have, our emotional reactions, and the unconscious thought processes underlying decision making and creativity, all objectively reflect what we have learned, often unconsciously. We all learn to like a sweet taste and avoid a bitter taste. We learn that grass is green and the sky usually blue. We learn that social psychology is fun and that herbology is boring. Our enormous capacity to learn unconsciously and to reproduce and use the learned information at will is at times simply stunning. In a way, automatic processes behave like computers and in that sense they are highly trustworthy. If you know what information you put in, you can be more or less sure what will come out. If you pair ‘sweet’ with ‘mmm!’ and ‘bitter’ with ‘yuck!’ ten times, you’ll find that your unconscious has developed associations that are highly useful and that prevents you, as a child, from eating the ficus in the living room. However, given that such associations faithfully reflect someone’s learning history, things occasionally go astray. If the unconscious is fed inappropriate information, it develops inappropriate associations. If you grow up in front of a TV that generally shows Caucasians while they mow lawns in immaculate suburbs and Africans while they sell drugs in far from immaculate alleyways, you’ll end up with an association between ‘Black’ and ‘bad’. Here, again, the unconscious will behave like a computer: Garbage in, garbage out. That being said, such inappropriate associations are really the exception to the rule that the unconscious is, by and large, reliable. One wonderful tool our unconscious gives us is intuition. Sometimes we just know we should buy those shoes, or that we should not buy a car from the somewhat sleazy salesperson. Intuition helps us to make very important decisions such as to buy a house, or to choose a university. In such cases, intuition beats conscious or controlled processes hands down. We can think for a long time about important decisions such as what house to buy, but though tempting as this may be, it will most likely not improve your decision. You need your unconscious here. You need to give such major decisions time, and let your unconscious come up with an intuition. Einstein once said ‘The intellect has little to do on the road to discovery. There comes a leap in consciousness, call it intuition or what you will, and the solution comes to you and you don’t know how or why.’ True creativity is the domain of the unconscious. In fact, scientific studies show that extraordinary creativity often follows the same process. First, scientists and artists read, think and talk. During this period, the unconscious is fed with useful information. After that, things are left alone for a while. During this period the unconscious crunches the information, and then, suddenly, a solution presents itself. In such cases, the unconscious shows itself in all its majestic magnificence. Conscious thought never leads to great creativity. It really is always the unconscious. If you do not trust your unconscious, or your automatic processes, you’ll never be creative. The bottom line is that you can almost always trust your unconscious as long as you make sure that it uses, or has used, the right information. If this is not the case, such as when your unconscious steers you toward prejudice, you want to use conscious or controlled processes to correct and to prevent damage. In other cases, you should trust unconscious processes and to some extent distrust conscious processes. It is tempting to think that consciousness should deal with the most important things and that less important matters can be delegated to the unconscious. This is not true. In some domains, such as complex decision making or creativity, conscious processes perform

abysmally. Very often, the unconscious works are ensuing satisfactorily, and all consciousness can do is throw a wrench in. Should we trust automatic thinking? Yes, with a few exceptions. Should we trust controlled processes? Sometimes, but only use them when your automatic processes lead you astray.

No we should not trust automatic thinking Keith Payne, The University of North Carolina at Chapel Hill Should we trust automatic thinking? Not really. To be sure, automatic thought has a lot going for it. It's fast. It's easy. It can keep us alive and solve certain kinds of problems with great skill. But when we rely on automatic thinking, we sometimes act in ways that we would not be proud of. For example, automatic thought is full of stereotypes and prejudices. When people rely on automatic thinking, they tend to assume that blacks are criminals, immigrants are lazy, and college professors are a bunch of liberals preoccupied with the plight of blacks and immigrants. Some people believe these things consciously, of course, but our automatic reactions are much more biased by stereotypes and prejudices than our conscious and thoughtful responses (Payne, 2006). Evolutionary theorists argue that automatic thought systems evolved to solve the survival problems that our ancestors faced. As a result, automatic thinking is brilliantly efficient at detecting threats and contaminants, noticing mating opportunities, and so on. But the same tool kit that works so well for passing on genes sometimes causes problems for living in modern democratic societies. Automatic thinking loves hierarchy. It has an us versus them mentality, so it is quick to separate our own group from 'outsiders' and 'foreigners'. That might have worked well for our hunter-gatherer ancestors, but it works at the expense of other notions like equality, freedom, and human rights. But prejudice is not the automatic mind's only trick. On autopilot, we sometimes care about the wrong things and we can get the simplest of judgments wrong. All of us would probably agree that all human life is valuable, and that we should work harder to help two suffering victims than to help one. But when actually asked to help famine victims, people donate more money to help one victim than to help eight victims. There is something about a single victim that elicits more sympathy than many victims. This For more Cengage Learning textbooks, visit www.cengagebrain.co.uk RECAP: A TALE OF TWO MODES OF SOCIAL COGNITION SEEING BOTH SIDES SHOULD WE TRUST AUTOMATIC THINKING? emotional mis-alignment happens not only for sympathy, but also for fear. People stay away from beaches because they fear outbreaks of shark attacks, despite the fact that falling coconuts kill more people each year (New Scientist, 2002). The consequences are not trivial. Automatic thinking leads people to make foolish decisions when a little arithmetic could save their lives. For example, following the September 11, 2001 airplane attacks on the U.S. World Trade Center and Pentagon buildings, Americans became afraid of flying. They shifted instead to driving. Their automatic response did not take into account the fact that the risk of death while driving is about 65 times higher than when flying. As a result, more than 1,500 people lost their lives as a direct result of shifting to cars in the months following 9/11 (Gigerenzer, 2006). Automatic thinking leads people to act impulsively in large and small ways. It beckons people to smoke another cigarette, despite conscious thoughts calmly reminding them that it is unhealthy. Automatic thinking leads people to gamble unwisely, assuming that if they've lost the last six rounds in a row, the next time just has to be in their favor. If you look, you can probably find automatic thinking behind the last thing you said that you wish you hadn't said. So what to do? Simply not thinking automatically is not an option. As far as we know, the human auto-pilot does not have an off-switch. Nor would we want one, as all those automatic survival skills turn out to be quite useful. But that does not mean we ought to simply accept the commands of automatic thought at face value. Trying to decide whether to eat the foul-smelling thing that's been in your

refrigerator too long? It’s probably best to trust your automatic disgust response. But if you’re trying to decide whether you should quit smoking, or whether an immigrant job applicant is qualified, or whether to risk your neck climbing Mount Everest because it’s there, do yourself a favor. Think for a few minutes; pay attention, and do the math. Life on automatic pilot can be, to paraphrase Thomas Hobbes, nasty, brutish, and short-sighted.

678 CHAPTER 18 SOCIAL COGNITION CHAPTER SUMMARY Social cognition is the study of people’s subjective interpretations of their social experiences, as well as their modes of thinking about the social world. Two different modes of thinking have been found to be critical within social cognition: one more automatic and unintentional, often outside conscious awareness, and another more controlled and deliberate, of which we are fully aware. Schematic processing is the perceiving and interpreting of incoming information in terms of simplified memory structures called schemas. Schemas are mini-theories about everyday objects and events. They allow us to process social information efficiently by permitting us to encode and remember only the unique or most prominent features of a new object or event. Stereotypes are schemas about groups of people. Through repeated exposure, stereotypes can become habitual and automatic, operating outside conscious awareness. Because schemas and stereotypes simplify reality, schematic processing produces biases and errors in our processing of social information. In forming impressions of other people, for example, we are prone to the primacy effect: The first information we receive evokes an initial schema and, hence, becomes more powerful in determining our impression than does later information. Schemas and stereotypes also govern our inferences. Once activated, stereotypes can set in motion a chain of behavioral processes that serve to draw For more Cengage Learning textbooks, visit www.cengagebrain.co.uk out from others behavior that confirms the initial stereotype, an effect called the self-fulfilling prophecy. This behavioral sequence can occur completely outside conscious awareness. Stereotypes about the self can be self-fulfilling as well. Stereotype threat refers to how the mere threat of being identified with a stereotype can raise a person’s anxiety level, reduce working memory capacity, and thereby degrade performance. Individuation is the process of forming impressions of others by assessing their personal qualities on a person-by-person basis. The continuum model of impression formation details when and how people come to individuate others. Cooperative activities can promote individuation. Although stereotypes are activated automatically, under the right conditions they can also be controlled through effortful thinking. Attribution is the process by which we attempt to interpret and explain the behavior of other people – that is, to discern the causes of their actions. One major attribution task is to decide whether someone’s action should be attributed to dispositional causes (the person’s personality or attitudes) or to situational causes (social forces or other external circumstances). We tend to give too much weight to dispositional factors and too little to situational factors. This bias has been called the fundamental attribution error.

10 Ancient cultural practices and beliefs about the locus of causality are believed to have shaped contemporary cultural differences in styles of thinking. Research has shown repeatedly that East Asians think more holistically, whereas Westerners think analytically. This work challenges all claims to universality made about human cognition, both basic and social. Attitudes are likes and dislikes – favorable or unfavorable evaluations of and reactions to objects, people, events, or ideas. Attitudes have a cognitive component, an affective component, and a behavioral component. The elaboration likelihood model states that persuasion can take two routes in producing belief and attitude change: the central route, in which the individual responds to the substantive arguments

of a communication, and the peripheral route, in which the individual responds to noncontent cues in a communication (such as the number of arguments) or to context cues (such as the credibility of the communicator or the pleasantness of the surroundings). A communication about an issue of personal relevance is more likely to generate thoughts in response to the communication's substantive arguments. When an issue is of little personal relevance or people are unwilling or unable to respond to the substantive content of a communication, they tend to use simple heuristics – rules of thumb – to judge the merits of the communication. Attitudes tend to predict behavior best when they are (1) strong and consistent, (2) specifically related For more Cengage Learning textbooks, visit www.cengagebrain.co.uk CHAPTER SUMMARY to the behavior being predicted, and (3) based on the person's direct experience, as well as (4) when the individual is aware of his or her attitudes. Many factors influence whether we will be attracted to a particular individual. The most important are physical attractiveness, proximity, familiarity, similarity, and transference. Theorists have suggested that one reason people fall in love is that doing so expands the self. There have been several attempts to classify types of love. Passionate love is characterized by intense and often conflicting emotions, whereas companionate love is characterized by trust, caring, tolerance of the partner's flaws, and an emotional tone of warmth and affection. Even though passionate love decreases over time in long-term relationships, the potential for strong emotion actually increases. But because companionate couples become so compatible in their daily routines, the actual frequency of strong emotions is fairly low. Another classification of love divides it into the components of intimacy, passion, and commitment. Evolutionary psychology suggests that humans have evolved to form long-term bonds with a partner because historically such pair bonds operated to ensure the survival of offspring to reproductive age. A more controversial hypothesis from evolutionary psychology is that men and women have evolved to pursue different mating strategies, with men evolving to be more promiscuous and seek out younger women.

CORE CONCEPTS social cognition schema schematic processing stereotype self-schema priming primacy effect inferences self-fulfilling prophecy stereotype threat individuation continuum model social identity approach attribution dispositional attribution situational attribution fundamental attribution error holistic thought analytic thought attitudes elaboration likelihood model central route peripheral route counterarguing attitude bolstering proximity mere exposure effect implicit egotism transference self-expansion passionate love companionate love triangular theory of love intimacy passion commitment WEB RESOURCES http://www.atkinsonhilgard.com/ Take a quiz, try the activities and exercises, and explore web links. http://www.socialpsychology.org/ Everything you ever wanted to know about social psychology and more! This huge warehouse of information offers a wide array of direct links, as well as a search engine to help you find exactly what you are looking for. http://www.apa.org/pi/oema/racism/contents.html This site from the American Psychological Association offers a frank discussion of racism and stereotypes. CHAPTER 18 SOCIAL COGNITION For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

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