What were President George W. Bush’s aims when he ordered U.S. troops to invade Iraq in 2003? What motivated Hilary Clinton to forgive the marital indiscretions of her husband, U.S. President Bill Clinton? As these examples illustrate, questions about the motives of other people arise frequently in daily life. Yet, social-psychological research on perceived motives has only recently developed a head of steam (Ames, 2004; Malle, 1999; Read & Miller, 1993; Reeder, Kumar, Hesson-McInnis, & Trafimow, 2002). Perceivers think of motives as mental states that describe the goals and aims of a person’s intentional actions. By attributing such motives, perceivers gain some understanding of what a person means in conversation, how the person’s actions fit together, and why the behavior occurred in the first place. This chapter outlines some of the emerging issues, with a focus on why, when, and how people infer motives. The first section of the chapter will discuss some of the reasons why people rely on motives to explain other people’s behavior. Next, we explore the particular circumstances when people are most likely to infer motives. The last section of the chapter describes some of the psychological processes that underlie inferences about motives. An integrating theme of the chapter is that perceivers of-
ten infer motives spontaneously and then use them to make trait attributions about other people.

WHY DO PEOPLE CARE ABOUT MOTIVES?

Dennett (1993) proposed that perceivers have a good reason for approaching others as if they are intentional agents—it works. By treating others as rational beings with common desires and impulses, perceivers are able to predict what others will do. Evolutionary psychologists suggest that early humans who understood the motives of friends and enemies could better anticipate their actions and thereby gained a survival advantage. The ability to recognize enemies and fraudulent schemes may have been particularly important, leading our ancestors to develop a domain-specific “cheater detector” mechanism (Cosmides, 1989). Thus, cave dwellers who recognized that enemies might deliberately draw them away from the cave could take precautions to protect the food stores. According to this line of thinking, modern social perceivers are predisposed to conceptualize others in terms of their goals and motives.

Perceiving a motive enables the perceiver to make sense of behavior patterns that might otherwise appear as random “noise.” Heider and Simmel (1944) provided an early demonstration of this sense making by creating a film in which black geometric figures were shown moving against a white background. When a large triangle moved toward a circle in certain ways, perceivers saw the triangle as a “bully” who was chasing the circle. Similarly, by attributing motives to the characters in a book or film, perceivers can organize their understanding of events. For example, to follow the complex plot lines of The Lord of the Rings, it is necessary to keep in mind that Frodo, Sam, and Gandolf do not appear motivated by power (e.g., they do not want the ring for themselves), unlike characters such as Sauraman. In sum, inferences about motives allow people to comprehend the meaning of events and better understand how the different aspects of an individual’s personality fit together (Read & Miller, 1993).

Finally, we should note that perceivers may prefer motives as explanations because they represent causal powers or generative mechanisms (Johnson, 2001; White, 1995). Thus, we might infer that Harry got a face-lift because he wants to look younger (and increase his appeal to younger women). The motive appears to represent a drive or force that explains the action, similar to the way the force of a strong wind could help to explain why a shingle blew off the roof. Such reasoning contrasts with the type of covariation reasoning proposed by traditional attribution theory (Kelley, 1973). According to covariational logic, a person’s
behavior tends to be explained by the potential cause with which it uniquely covaries. For example, if getting a face-lift is unique to Harry (other people do not get them), covariation logic suggests the presence of a person cause (e.g., there is something unique about Harry that caused him to behave that way). Johnson (2001) notes that, although the covariation-based approach to causal attribution has dominated the research agenda of social psychologists, perceivers often rely more on generative relations in which effects are produced by causal powers or mechanisms (Ahn, Kalish, Medin, & Gelman, 1995). An explanation in terms of motive can provide just that sort of account. For example, when seeking an explanation for Harry’s face-lift, perceivers may find an explanation in terms of motive (“He wants to look young”) to be a more specific and satisfying explanation than an explanation in covariation terms (“Something about Harry caused the behavior”).

It appears, then, that people have a strong interest in getting to know the motives of others. From an evolutionary perspective, an interest in motives appears necessary for survival in the social environment. In our everyday lives, we need to interpret motives in order to understand the meaning of events and to understand the different facets of a person’s personality. As such, inferences about motives offer a particularly satisfying explanation of behavior.

**WHEN DO PERCEIVERS ATTRIBUTE MOTIVES AND WITH WHAT EFFECT?**

If inferences about motives are both useful and intellectually satisfying, it stands to reason that people should infer them with great frequency. In fact, inferences related to intentionality and motive may proceed more or less automatically. Smith and Miller (1983) asked their research participants to read short sentences (e.g., “Andy slips an extra $50 into his wife’s purse”) and then answer questions about whether the behavior was intended and whether the behavior was caused by something about the person versus something about the situation. Participants were faster to answer questions about intentionality (2.4 seconds) than questions about either person causality (3.4 seconds) or situational causality (3.8 seconds). Thus, people may be predisposed to process behavior in terms of intentionality rather than in terms of abstract (causal) reasoning about persons and situations (Malle, 1999).

Other studies provide more direct evidence that inferences about motives can be made spontaneously (Fiedler & Schenck, 2001; Kawada, Oettingen, Gollwitzer, & Bargh, 2004; Vonk, 1998). For example, Reeder and his colleagues (Reeder, Vonk, Ronk, Ham, & Lawrence,
2004) presented perceivers with a videotape of a student who was asked by a professor to help move books around in the professor’s office. The student readily agreed to the request and began helping with the task. Participants also received information about the situation surrounding the target’s helping behavior. In the no-choice condition of the study, perceivers learned that the student was employed by the psychology department to help professors with tasks such as moving books. In other words, moving books appeared to be a normal part of the job. Two additional conditions, however, described the student as responding to different situational forces. In a free-choice condition, the participants were told that the student was not working at the time the help was offered. Finally, in the ulterior motive condition, participants learned that the student had been nominated for a $1,000 academic award, and the professor was the one who would oversee the award. Later, when perceivers wrote out their impressions of the student in an open-ended format, their unprompted descriptions tended to focus on the motives of the target person. For example, participants in the no-choice condition described the student as motivated by (job-related) obedience, whereas those in the ulterior-motive condition described the student as having selfish motives. When forming impressions, then, perceivers may infer motives without an experimenter having to specifically ask about them (see also Reeder, Hesson-McInnis, Krohse, & Scialabba, 2001; Reeder et al., 2002).

A follow-up study examined the speed with which participants made their judgments about motive (Reeder et al., 2004). Once again, participants were provided with information about a student who helped a professor move books. As in the preceding study, the helping behavior took place under no-choice, free-choice, or ulterior-motive conditions. In this study, however, participants received this information as they sat in front of a computer that timed their responses. The results indicated that perceivers were quick to infer a motive that was relevant to the helping situation. For example, those in the no-choice condition were quicker to infer the motive of obedience than were participants in the remaining conditions.

Given that perceivers can infer relevant motives spontaneously, what role do such inferences play in the impression formation process? Additional analyses of the studies reported above suggest that inferences about motive are central to impressions. For example, inferences about motives (such as obedience and selfishness) proved to be good predictors of trait attributions about the student’s helpfulness (Reeder et al., 2004). Participants who saw the student as motivated by obedience also tended to think that she was relatively helpful. In contrast, those who saw her as having a selfish ulterior motive rated her as less helpful. In fact, infer-
ences about motive were better predictors of trait attributions regarding the student’s helpfulness than were abstract causal attributions (to either personal or situational factors). In sum, perceivers often infer motives spontaneously, and such inferences tend to guide the kinds of trait attributions that are made about the target person.

The findings summarized above are important because, starting with Heider (1958), attribution theorists believed that causal attributions took precedence over other types of inferences. For example, Shaver (1975, pp. 31–33) was quite explicit in specifying a chain of inference in which causal attributions preceded trait inferences. Yet, it now appears that causal attributions (to global person vs. situational factors) are often of secondary importance to perceivers when they explain intentional behavior (Malle, Knobe, O’Laughlin, Pearce, & Nelson, 2000) and that inferences about motives play a more prominent role in person perception than earlier attribution theorizing had anticipated (Reeder et al., 2001, 2002, 2004).

Although motives and goals are typically important when perceivers explain intentional behavior, there is a growing body of literature on the specific circumstances under which motive inferences are most commonly made (Idson & Mischel, 2001; Malle et al., 2000; McClure, 2002; O’Laughlin & Malle, 2002; Nussbaum, Trope, & Liberman, 2003). McClure (2002) notes that people are more likely to explain common actions in terms of motive, whereas they tend to explain more-difficult-to-enact behaviors in terms of preconditions (that are thought necessary to enact the behavior). For example, a common behavior such as going to the zoo might be attributed to a motive (such as curiosity about animals), whereas a more difficult behavior such as buying a wildlife preserve would be attributed to preconditions (such as being wealthy). Malle and colleagues (2000) suggest that preconditions can be thought of as including not only enabling factors (such as having wealth) but also explanatory factors that specify the causal history behind the act (e.g., a person grew up surrounded by pets). Other factors, such as familiarity with a target person (as a friend or family member) lead perceivers to increase their use of motive-relevant explanations, as opposed to trait-like explanations (Idson & Mischel, 2001). In addition, Nussbaum and colleagues (2003) suggest that events in the near future (e.g., Will the target person study tonight?) are more likely to be thought of in terms of strategic, motive-relevant constructs, whereas events in the distant future (Will the target person go to college?) are thought to be determined by a person’s abstract traits.

In much of the research summarized above, there is an implicit assumption that inferences about motives are an alternative to other types of person-relevant explanations. For example, Nusbaum and colleagues
(2003) implicitly assume that perceivers will explain behavior either in terms of concrete mental states such as motives or in terms of abstract traits. In our view, however, perceivers are likely to rely on more than one type of explanation when accounting for a given behavior. The multiple inference model (MIM) of dispositional inference is explicit on this point (Reeder et al., 2002, 2004). MIM suggests that perceivers infer both the motives and traits of a person, integrating the different types of information in a meaningful way. For example, in the two Reeder and colleagues (2004) studies discussed earlier, perceivers inferred a more helpful trait if they attributed the student’s helping behavior to an obedience motive, as opposed to a self-serving motive. Thus, rather than viewing motive attribution as an alternative to other types of person-relevant explanations (such as trait attributions), we suggest that perceivers often infer multiple attributes in a target person and then integrate these different types of information.

In summary, recent studies suggest that inferences about motives are not a hothouse phenomenon, observable only when experimenters inquire about them. To the contrary, perceivers often infer motives spontaneously as a way of making sense of behavior. Although traditional attribution theory focused on abstract causal attribution (to situational and dispositional factors) as underlying the traits that we attribute to others, it now appears that inferences about specific motives often play a more important role. Finally, we hope future research will better clarify how inferences about motive are combined with other types of person inferences. Below, we turn our attention to the processes by which motives are inferred.

**HOW DO PEOPLE INFERENCE MOTIVES?**

Traditionally, philosophers and developmental psychologists (Goldman, 2001; Gopnik & Wellman, 1994) have proposed two process-related explanations to account for inferences about the mental states of others. One explanation suggests that perceivers mentally place themselves in the other person’s shoes, attempting to simulate what the target thinks (simulation theory). The other explanation suggests that perceivers invoke general knowledge and implicit theories about other people to infer the target’s mental states (implicit theory). In the past, writers have applied these theories to account for mental state inferences regarding the beliefs and feelings of others. Given the relative infancy of research on inferred motives, this chapter will start with the assumption that these processes are also at work when people make inferences about motives. In addition, we will suggest that each of these processes—simulation and
the application of implicit theory—may take one of two forms. With regard to simulation theory, we will propose that simulation can lead to either a passive projection process or a more effortful perspective-taking process. With regard to implicit theories, we will propose that perceivers may rely on either the logic of covariation (Kelley, 1973) or a constraint-satisfaction process (Read & Miller, 1993; Reeder et al., 2004). Although we hope to draw some sharp contrasts between simulation and implicit theories, we also assume that these processes are not mutually exclusive and any given inference about motive may be guided by more than one process.

Using Simulation to Infer Motives

Attempts to understand others often start close to home. Perceivers ask themselves, for example, “What would I be thinking if I were her?” Proponents of the simulation theory suggest that the perceiver “pretends to be in certain states the target is in” (Goldman, 2001), imagining the perceptual input the other person experiences (what the other sees, hears, and touches). The perceiver then tries to experience (or match) the same thoughts and emotions that exist in the target. The results of this simulation are then attributed to the target. In the next section we review some of the evidence for simulation as a general account of how people infer the mental states of others.

Evidence for the Simulation Account

Several lines of evidence are consistent with the idea that perceivers rely on simulation when inferring mental states. First, people commonly report the phenomenological experience of mentally trading places with others in order to imagine their feelings (Van Boven & Loewenstein, 2003). For instance, when watching a contestant on a reality TV show, we might find ourselves wondering “How would I feel if I were the one eating that potato bug?” or “What would motivate me to ever do such a thing?” Second, people apparently project their own transient drive states and social motivations onto others. Van Boven and Loewenstein (2003) told their research participants about a group of hikers who lost their way and had little access to water. Participants who had recently engaged in vigorous exercise (and were thirsty, as a result) were particularly prone to estimate that the hikers would be thirsty (as opposed to hungry). In other words, thirsty people projected their own drive state onto others. Kelley and Stahelski (1970) reported a similar finding in a study involving the perception of social motivation. Participants who expected to play a prisoner’s dilemma game predicted that their partners in
the game would have motivations like their own. That is, participants with a competitive orientation tended to expect a competitive partner, whereas participants with a cooperative orientation were more likely to expect a cooperative partner.

A third reason to consider the simulation account is that certain aspects of the process may operate spontaneously. The discovery of mirror neurons in monkeys suggests a possible neural basis for the process of entering into another’s mental state. When people observe the goal-directed actions of others, such as grasping an object, it is possible that related neurons and hand muscles are activated within the observer (Decety, Chapter 9, this volume; Fadiga, Fogassi, Pavesi, & Rizzolatti, 1995; Gallese & Goldman, 1998). Other research suggests that feelings of empathy may be spontaneously activated in an observer. When people are exposed to someone who is in an emotionally arousing situation, they often spontaneously experience feelings of empathy (Hodges & Wegner, 1997). In turn, empathic feelings, or a feeling of general similarity with the other, may prompt attempts at simulation. For example, a study by Ames (2004) illustrates how feelings of similarity can prompt people to project their own motives onto others. In the course of the research, participants indicated how similar they felt to fraternity members. In another part of the study, Ames asked his participants to read a story about a fraternity member who met a young woman at a dance and then asked her to leave with him. Given the ambiguous nature of the story, participants could construe the fraternity man as either motivated to have casual sex with the woman or as motivated to learn more about the woman’s personality and opinions. The results of the study indicated that participants who felt similar (as opposed to dissimilar) to fraternity members were more likely to project their own motives onto the character in the story (e.g., those who had an interest in casual sex tended to perceive that same motive in the character). In sum, the studies reviewed above suggest that people may engage in a simulation-like process when judging the motives of another, particularly when they perceive some similarity between themselves and that person.

Two Forms of Simulation: Simple Projection versus Effortful Perspective Taking

Up to this point, we have used the term “simulation” to refer to the general process by which perceivers mentally trade places with another. In this section we will suggest that this general process may take one of two forms, depending on the extent of cognitive effort expended by the perceiver. When perceivers make their judgments quickly, without expending much effort, the result tends to be a simple form of projection.
In simple projection, the perceiver makes little effort to imagine the situation as experienced by the target person. Instead, the perceiver relies on his or her own perspective and merely projects the feelings that arise from it onto the target. For instance, when Marie Antoinette was informed that the peasants in France had no bread, she recommended that they eat cake. Likewise, thirsty athletes who project their own drive states onto others appear to be engaging in simple projection (Van Boven & Loewenstein, 2003). Such projection seems to represent a failure of what we ordinarily mean by “perspective taking.” So it seems important to distinguish such simple projection from the more effortful form of perspective taking described below.

We propose that effortful perspective taking involves an active process in which the perceiver imagines the similarities and differences between his or her own experiences and those of the target person. The perceiver tries to conceptualize the target’s situation as it would appear to the target, seeking to appreciate the target’s current state of mind. This process may require that the perceiver make some adjustment or accommodation to his or her own mental state before it is projected onto the target. For example, perceivers in the Van Boven and Loewenstein (2003) studies might think, “Well, I am not thirsty now, but I sure would be if I were lost and hadn’t had anything to drink all day.” Such effortful perspective taking may require a degree of effort and motivation on the part of the perceiver. Next we review evidence for the distinction between simple projection and effortful perspective taking.

We begin by noting that some forms of perspective taking develop at an early age. Children as young as 4 and 5 years old can distinguish between their own belief and that of another person (who has a false belief). For example, if a person believes a physical object is in location A, whereas the child knows the object is in location B, the child will predict that the person will look for the object in location A (Wellman, Cross, & Watson, 2001). In other words, even young children are capable of viewing the world from the perspective of another. Given that adults possess at least a similar capability, we might expect them to routinely demonstrate perspective taking. As described below, however, there is a difference between having the capability to engage in effortful perspective taking and actually doing so in everyday life.

For example, Keysar and his colleagues have identified some disturbing limitations in the perspective taking of adults (Barr & Keysar, Chapter 17, this volume; Keysar, Barr, & Horton, 1998). Starting from a developmental framework, Keysar and colleagues (1998) initially expected to find that adult perceivers used language in a non-egocentric way, putting themselves in the “other person’s mind” when they inter-
pret the meaning of language. To their surprise, their data forced them to conclude that adults often behaved egocentrically. For example, in one study perceivers read a story in which Jane recommended an Italian restaurant to David. He tried the restaurant and hated it, leaving a note to Jane that simply said, “. . . it was marvelous, just marvelous.” When asked how Jane would understand the note, perceivers in this condition routinely thought that Jane would appreciate the sarcasm in the note (i.e., that David hated the restaurant). Perceivers in this study apparently suffered from a “curse of knowledge,” such that they assumed that Jane would have the same privileged knowledge that they possessed. In sum, although perceivers may be quick to project their own understanding of events onto others, they may be slower to appreciate the limitations of another person’s perspective. As described below, effortful, non-egocentric perspective taking may occur only under ideal circumstances, requiring motivation and cognitive resources from the perceiver.

Keysar and his colleagues (1998; Epley, Keysar, Van Boven, & Gilovich, 2004) suggest that there may be separate time courses for simple projection as opposed to effortful perspective taking. They propose a monitoring-and-adjustment model as a way of understanding the data on language processing. Accordingly, perceivers initially respond to information in a simplistic, egocentric manner (without regard to the perspective of others). But given sufficient time, perceivers may correct their error and begin to describe the situation in terms of the other person’s point of view. In describing how perceivers project their drive states onto others, Van Boven and Loewenstein (2003) also describe a two-stage model. The first stage involves people’s predictions of how they would feel in the target person’s situation, whereas the second stage involves an adjustment whereby people accommodate perceived differences between themselves and others. This second stage appears more effortful and would appear to require greater motivation on the part of the perceiver.

The research discussed above may have important implications for the simulation account of motive inferences. The evidence suggests that an effortful version of simulation may not be the default process for inferring motives but instead takes place only under ideal circumstances. Indeed, Kawada and colleagues (2004) found that people tend to project their goals onto others automatically, without having to consciously place themselves in another person’s shoes. If perceivers subsequently engage in a more conscious and controlled effort to understand others’ motives, the initial projections of motive would presumably undergo some alteration. Future research might aim to delineate the circumstances when people are most prone to engage in simple projection versus effortful perspective taking. For example, it
may be the case that when the perceiver and target person are presented with the same stimulus, or are in the same situation, perceivers are most prone to simple projection. Although we recognize that distinguishing between simple projection and effortful perspective taking is not without difficulty, we believe that future researchers will find the effort worthwhile.

We conclude this discussion by noting that our aim here is to draw a distinction at the level of process rather than in terms of outcome or accuracy. For example, a father may think that his son wants to go to college simply because the father would like to have had the opportunity to go to college (“I wish I could have 4 years to learn about the world and explore my talents. I am sure Junior feels the same!”). The example is a case of simple motive projection. On the other hand, if the father actively places himself in his son’s shoes and tries to imagine the world as it would appear from that unique vantage point, the process is one of effortful perspective taking (“Let’s see . . . Junior likes tail-gate parties and cheerleaders, and there are lots of both in college”). Although effortful perspective taking is certainly a more sophisticated and potentially accurate way to infer motives, it may not always lead to accuracy (e.g., Junior might not want to go to college because he hates to study, or, alternatively, Dad might be mistaken in his assumptions about Junior’s likes and dislikes). In the next section we will consider an alternative approach to inferring motives.

Using Implicit Theories to Infer Motives

In addition to using simulation, perceivers may employ abstract, theory-like constructs to understand the mental states of others (Gopnik & Wellman, 1994). Such theories are implicit in the sense that people may not be able to articulate the details of the theory, but the existence of a coherent theory can be inferred indirectly from the kinds of judgments that people make. We will attempt to identify some patterns in people’s judgments about motives, and we offer some suggestions about the nature of the underlying theory and process. Although there is fair agreement among developmental psychologists and philosophers that a theory of mind exists, these literatures are less specific about the concrete assumptions and psychological processes of implicit theories. We will draw from the social psychological literature to specify two general types of theoretical reasoning about motives. The first of these involves the principle of covariation popularized by attribution theorists (Jones & Davis, 1965; Kelley, 1973), whereas the second involves constraint-satisfaction processes that are implicit in the early person perception lit-
erature (Heider, 1958) and explicit in more recent theorizing (Read & Miller, 1993; Reeder et al., 2004).

Covariation and Inferences about Motives

Heider (1952, p. 152) noted a fundamental pattern in attribution: a potential cause (or motive) “will be held responsible for an effect which is present when the effect is present and which is absent when the effect is absent.” Heider noted that this covariation principle underlies Mill’s method of experimental inquiry. The principle suggests that if black clouds are present when it rains and absent on days when it is dry, people will tend to see black clouds as the cause of rain. Kelley (1973) elaborated on the covariation principle in order to explain the circumstances under which perceivers will make global causal attributions to internal (vs. external) causes.

The principle also underlies the landmark “noncommon effects” analysis offered by Jones and Davis (1965). Although the noncommon effects analysis is often interpreted as a theory of trait attribution, it actually describes how motives are inferred. Jones and Davis illustrated their theory with a quaint example of Ms. Adams, who received multiple marriage proposals from eligible suitors. The analysis begins by noting that any choice on her part typically is consistent with multiple motives and that the perceiver will try to select among these possible motives. Suppose that two of her suitors—Mr. Bagby and Mr. Caldwell—are both handsome and wealthy. Yet, Bagby holds a prominent social position, whereas Caldwell does not. If Ms. Adams selects Bagby as her marriage partner, covariation logic suggests that we can rule out good looks and wealth as the primary motives for her choice because they are held in common by both suitors (Sutton & McClure, 2001). Yet, her selection does covary in a unique way with Bagby’s social position. Consequently, we are likely to infer that Adams’s choice was determined by that unique motive. In other words, motives that are unique to her choice are considered to be the more plausible ones.

But what if there are two or more unique motives underlying a particular action? Suppose that the lucky man, Bagby, not only holds a prominent social position but also possesses a great sense of humor. Kelley’s discounting principle suggests that perceivers will discount (or downplay) any particular motive if there are other plausible motives that might account for the behavior. According to the discounting principle, then, perceivers should be more certain about Ms. Adams’s motivation if Bagby is merely socially connected, as opposed to being both socially connected and a humorous fellow. In short, the principles of covariation
and discounting suggest that perceivers will search for a particular motive that covaries in some unique way with a person’s choices and actions.

**Constraint Satisfaction and Inferences about Motives**

In general, constraint satisfaction deals with finding a “fit” among various elements in a system, as when a university administrator develops a class schedule by arranging classrooms, meeting times, professors, and students into the schedule (Thagard, 1996). Earlier, we noted that the logic of covariation involves isolating a motive that is unique to a particular action. In contrast, the logic of constraint satisfaction involves finding a motive that fits with, or is common to, a variety of actions. Heider (1958, p. 51) suggests that there is an economy to perceivers’ logic such that they look for a motive that helps to reconcile apparent contradictions in a person’s behavior. For example, suppose perceivers learn about a young man who lavished attention on an elderly woman, received expensive gifts as a result, and then terminated the relationship. Perceivers are likely to attribute a mercenary motive to the young man (the term “gold digger” comes to mind). The mercenary motive accounts for the full pattern of behavior.

If a variety of motives are implied by a target person’s behavior, perceivers sometimes select more than one motive. In this case, perceivers seek consistency among the selected motives (Heider, 1958, p. 52). For instance, in the no-choice condition of the study described earlier by Reeder and colleagues (2004), participants learned that a student worker had received instructions from her superior to help professors move books. After watching the student help the professor, participants inferred that the student was motivated by both obedience and helpfulness. Apparently, the motive to obey was perceived as consistent with a helpful motive. Evaluative consistency is, perhaps, the major basis for such consistency. Being obedient on the job and being helpful both have a positive valence. Consequently, perceivers may not hesitate to endorse both motives simultaneously. In contrast, if two potential motives are evaluatively inconsistent, perceivers are likely to reject one of them in favor of the other. In a second condition of the Reeder and colleagues study, the student’s helpful behavior was portrayed as possibly due to an ulterior motive (wanting to win an award for which the professor was responsible). In this condition, a helpful motive would appear inconsistent with the negative valence of the ulterior motive. Consequently, a constraint-satisfaction process would predict that perceivers would attribute lower ratings of helpfulness to the student in this condition. This
prediction was confirmed. Thus, it appears that perceivers are unlikely to attribute motives with contrasting valences. When perceivers do attribute more than one motive to a person, the motives tend to fit together in a consistent manner.

It is worth noting that the constraint-satisfaction process sometimes leads to predictions that are at odds with a simple covariation analysis. Unlike covariation, constraint satisfaction implies that the presence of two potential motives for an act does not automatically cast doubt on one of them. For instance, in the above example where a student worker helped a professor out of apparent obedience, the presence of the obedience motive did not lower rating of helpfulness. Whether or not a given motive will be discounted, then, depends less on the number of other plausible motives than on the “fit” between the possible motives.

Before concluding our discussion of constraint satisfaction, we think it is important to note that the process can introduce considerable bias. When perceivers have prior knowledge of a target person, either because of earlier encounters or stereotypical expectations (Ames, 2004), they are likely to infer a motive that is consistent with their expectations. Thus, perceivers who dislike a politician are likely to see dark motives in even the most benign actions of the politician. This tendency may be particularly strong because people’s motives are typically ambiguous, allowing for any number of interpretations.

In general, then, perceivers may be biased by their preconceptions, or by their own unique goals and perspective, to spot particular types of motives in another person. Heider (1958, p. 172) suggested that perceivers choose a reason for a person’s actions that (1) fits the perceiver’s wishes and (2) fits the data. Below we will describe naive realism (Ross & Ward, 1996) and self-esteem enhancing tendencies (Tajfel & Turner, 1986; Taylor & Brown, 1988) as possible biasing factors in the process of attributing motives.

Naïve realism is said to represent the last vestige of the kind of egocentrism found in children (Ross & Ward, 1996). This sort of thinking consists in believing that one perceives events objectively (as they really are) and that other rationally minded individuals will see them similarly. If others fail to see things similarly it is because they are lazy, irrational, or biased by ideology or self-interest. This last tendency—to see others as biased by self-interest—is particularly relevant to our discussion of perceived motives. Naïve realism suggests that when another person (or group) disagrees with our opinions we tend to see the motive of self-interest at work (“They have an axe to grind!”). Indeed, Reeder, Pryor, Wohl, and Griswold (2005) found such a bias in a survey of Americans and Canadians regarding their support for the 2003 war in Iraq.
People on both sides of this controversial issue tended to see those on the other side as guided by self-interest (as opposed to being guided by ethical principles). Thus, although people believe the motive of self-interest is widespread (Miller, 1999), they are particularly prone to see it in others who disagree with their opinions.

Finally, identity concerns and self-esteem needs (Tajfel & Turner, 1986; Taylor & Brown, 1988) may also lead people to make biased attributions of motive (Reeder et al., 2005). When other individuals or groups agree with our own position on a controversial issue, it not only validates our view of the world, it validates us. Consequently, we feel more positive about those who support our opinions, and we tend to attribute positive motives to them. Similarly, self-esteem needs may lead us to attribute positive motives to a subordinate who flatters us, whereas an observer (who overhears the flattery) might attribute an ulterior motive to the ingratiator (Vonk, 2002). In sum, both naive realism and the tendency to self-enhance may lead to biased attributions of motive.

**CONCLUSION**

The evidence reviewed in this chapter suggests that inferences about motives are a common occurrence in everyday life. Perceivers often infer motives spontaneously and rely on them to better understand the people in their lives. Inferences about motives appear to be an especially important determinant of trait attributions. Such findings challenge traditional attribution theories that view abstract causal attributions as underlying the trait attributions we make about others. Although little is currently known about how people infer motives, we suggested that processes related to simulation and implicit theory may be important. With regard to inferring motives via simulation, we drew a distinction between simple projection (i.e., projecting one's own motives onto others without considering their unique circumstances) and a more resource-dependent form of effortful perspective taking. With regard to using implicit theories to infer motives, we suggested that such theories might operate via principles of covariation analysis and constraint satisfaction.

From the summary above, it is apparent that we covered a lot of ground in this chapter. Nevertheless, our topic is still largely unexplored, and many questions remain. In particular, we hope future research will shed light on the similarities and differences between inferences about motives and inferences about other mental states such as beliefs and feelings.
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