

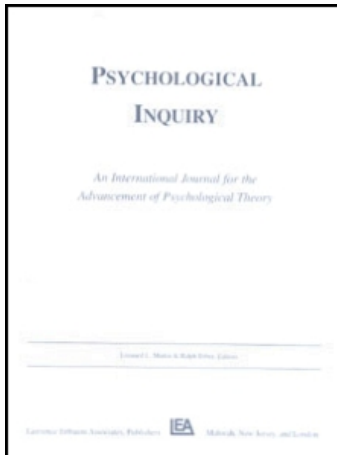
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## Mindreading: Judgments About Intentionality and Motives in Dispositional Inference

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## TARGET ARTICLE

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### **Mindreading: Judgments About Intentionality and Motives in Dispositional Inference**

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*Judgments about the intentionality of other people's behavior are central to social perception. Perceivers typically explain a target person's intentional behavior in terms of the target's motives. In turn, inferences about motive often inform trait inferences about the target. In comparison to past theories, this multiple inference model portrays perceivers as interested in the specific beliefs and motives of others, rather than viewing perceivers as focusing on abstract causal reasoning. The model is applied to the literatures on attitude, morality, and ability attribution. In contrast to intentional behavior, perceivers explain a target person's involuntary, unintentional behavior by using a simpler process of global causal attribution.*

“You are reading my mind, aren't you?” It's a question psychologists occasionally hear at social gatherings with nonpsychologists. If psychologists do read people's minds, they are not alone in doing so. As social perceivers, all of us attempt to infer the beliefs and motives of people we encounter in order to better understand them. This article examines mindreading as it operates in the process of forming an impression of another person's traits and attitudes. The guiding idea is that perceivers draw a sharp distinction between intentional and unintentional behavior. Intentional behavior is explained primarily in terms of the actor's aims and motives. In turn, perceivers use their inferences about motive to fashion trait judgments about the actor. Unintentional behavior, in contrast, is explained by a simpler process—well described by traditional attribution theory—that relies on causal attributions about internal and external causes (Gilbert, 1998; Kelley, 1973).

Issues surrounding mindreading, or theory of mind, crop up in a variety of disciplines, including the philosophy of action (Goldman, 2001; Kant, 1785/1959; Searle, 1983), anthropology (D'Andrade, 1987), language comprehension (Bloom, 1997; Schank & Abelson, 1977; Zwaan & Radvansky, 1998), and communication (Keysar, Barr, & Horton, 1998; Wyer & Gruenfeld, 1995), as well as comparative psychology (Povinelli, 2001; Premack & Woodruff, 1979) and cross-cultural psychology (Lillard, 1998; Morris, Menon, & Ames, 2001). Developmental psychologists

were among the first to delve deeply into the area (Kalish, 1998; Lillard, 1998; Piaget, 1932). They found that children begin to understand the beliefs, goals, and intentions of others at about 2 years of age (Mele, 2001; Meltzoff & Brooks, 2001). A more sophisticated understanding emerges by the 4th or 5th year, when children recognize that others may have false beliefs (Wellman, Cross, & Watson, 2001). In adulthood, people reason about mental states in a variety of important life domains including the legal system (Hart, 1968), close relationships (Fincham, Beach, & Nelson, 1987; Fletcher, Simpson, Thomas, & Giles, 1999; Haselton & Buss, 2000; Ickes, Simpson, & Oriña, 2005; Reeder, 2008), impression management (Jones, 1964), persuasion (Sagarin, Cialdini, Rice, & Serna 2002), stereotype formation (Mendoza-Denton, Park, & O'Connor, 2008), business negotiation (Kim, Dirks, Cooper, & Ferrin, 2006; Thomas & Pondy, 1977; Tyler, 2003), and conflict resolution (Kennedy & Pronin, 2008; Pronin, 2007). Often, behavior is ambiguous such that understanding a target person's intentions is central to interpreting the meaning of helping behavior (Ames, Flynn, & Weber, 2004; Krull, Seger, & Silvera, 2008; Pruitt, 1968), and aggression (Dodge & Coie, 1987). Such judgments then figure prominently in decisions about responsibility and morality (Alicke, 2000; Pizarro, Uhlmann, & Salovey, 2003). While filling out surveys, respondents may even question the intentions of the researcher (Schwarz & Oyserman, 2001).

## Why Was Mindreading Neglected in the Social Perception Literature?

Given such widespread acknowledgment of mindreading, it is curious that research on impression formation and trait attribution (Fiske & Taylor, 2008; Gawronski, 2004; Gilbert, 1998; Krull, 1993; McClure, 1998; Morris & Larrick, 1995; Trope, 1986) has neglected the topic. This neglect is even more puzzling given that the pioneers in the field recognized the importance of intentionality (Heider, 1958; Ichheiser, 1970; Jones & Davis, 1965; Maselli & Altrocchi, 1969). Heider (1958), for example, noted that perceivers sharply distinguish between intentional behavior (such as when a worker deliberately sabotages company machinery) and unintentional behavior (such as when a worker accidentally drops a wrench that jams a machine). Intentional behavior reflects the thoughts, desires, and motives of an actor, whereas unintentional behavior does not. In short, intentional behavior invites the perceiver to engage in mindreading. The greater informativeness of intentional behavior was also not lost on Jones and Davis (1965), who emphasized it as a precondition for dispositional inference. As described next, however, as models of trait inference evolved they tended to gloss over the distinction between intentional and unintentional behavior.

### Assumptions About the Primacy of Trait Inference and Causal Attribution

Since Heider (1958) and Jones and Davis (1965), the role of intentionality in social perception has been overshadowed by two additional aspects of Heider's writing. These aspects involve Heider's assumptions about the primacy of (a) trait inference and (b) global causal attribution to person versus situational factors. First, Heider assumed that the perceiver is primarily interested in the relatively invariant characteristics of others—their traits and dispositions. Although others may indeed have fleeting thoughts and intentions, Heider implied that the perceiver cares more about their “underlying conditions, the so-called dispositional properties” (p. 79). Thus, rather than emphasizing what others are thinking or planning in the moment, Heider's social perceiver wants to know what people do in general, averaging over a variety of situations. Heider's road map led researchers to jump pell-mell into ambitious programs of research on dispositional inference (Gawronski, 2004; Gilbert, 1998; Jones, 1979). Few stopped to ask if trait inference was the primary concern of the perceiver and few considered how mindreading might inform trait inference (for exceptions, see Fein, 1996; Kammrath, Mendoza-Denton, & Mischel, 2005; Read & Miller, 1993, 2005).

Heider's (1958) second assumption also deflected the field's interest away from mindreading. He

assumed that perceivers are primarily interested in separating internal causality from external causality: “In common-sense psychology (as in scientific psychology) the result of an action is felt to depend on two sets of conditions, namely factors within the person and factors within the environment.” (p. 82). Subsequent analyses tended to echo the emphasis on perceived causality (Kelley, 1973; Shaver, 1975). As a corollary to this assumption, Heider put these two forces in opposition such that as the role of external (situational) causation increases, the role of internal (dispositional) causation decreases. For example, if a person showed temporary signs of dejection after experiencing the loss of a loved one, we would not conclude that the person has a gloomy disposition. This trade-off in perceived causality serves as the bedrock of most models of dispositional inference (Gilbert, 1998; Kelley, 1973; McClure, 1998). The point to notice, then, is that Heider's theoretical preoccupation with invariant traits and the process of causal attribution did not shed much light on mindreading per se.

### The Single Inference Assumption

There is still a third assumption in the social perception literature that helps to account for the neglect of mindreading. Without explicitly acknowledging it, most theories of dispositional inference make the simplifying assumption that perceivers infer a single trait within a target person. For instance, Gilbert, Pelham, and Krull (1988) studied people's judgments about a person who became anxious when asked a series of embarrassing questions. According to this influential theoretical account, the process of trait attribution follows three stages. In the first stage, the perceiver identifies the person's behavior in terms of a focal trait dimension (She looks anxious). In the second stage, the perceiver makes a behavior-correspondent trait inference (She really is an anxious person). At the third stage, if cognitive resources allow, the perceiver may correct the trait inference to reflect the influence of situational causes (Given those embarrassing questions, I don't think she is such an anxious person after all). Notice that the output is an inference along a single trait dimension related to anxiety. For this reason, we can refer to models of this kind as *single inference theories* of dispositional inference.<sup>1</sup> The simplicity of the single inference approach gives it great elegance. As described next, however, such simplicity carries a cost as well.

The single inference assumption works well as an explanation of how perceivers process unintentional behavior. In the previous example, the target person's

<sup>1</sup>Of course, it might be possible to extend single inference theories to address multiple inferences about a target person. At present, however, it remains unclear what form such extensions would take.

anxious behavior appears unintentional (e.g., it is unlikely that she made a conscious decision to be anxious). The perceiver can assume that no elaborate belief system, set of desires, or planning went into her behavior. Under these circumstances, the perceiver can simply “subtract” the influence of the anxiety-provoking situation from the observed anxious behavior to obtain a trait attribution about the target person’s level of anxiety. The single inference assumption, therefore, provides an entirely adequate account of how perceivers process unintentional behavior.

But the impression process is more complicated in the case of intentional behavior. Perceivers typically search for the motives that underlie intentional behavior and then combine those inferences with judgments about traits. The result is a *multiple inference* process (Reeder, Kumar, Hesson-McInnis, & Trafimow, 2002; Reeder, Vonk, Ronk, Ham, & Lawrence, 2004). For example, a target person’s helpful behavior can lead to very different inferences about the target’s trait level of helpfulness, depending on the motive that instigated the helping (Krull et al., 2008). Upon learning about a student who helped a professor arrange a stack of books, perceivers may wonder if the “helpful” behavior reflects an ulterior motive to impress the professor (Fein, 1996; Reeder et al., 2004; Vonk, 1998). An ulterior motive would suggest selfishness on the student’s part and, therefore, would tend to lower trait judgments about the student’s helpfulness. Notice that to fully understand the student’s interaction with the professor, the perceiver relies on inferences about both the motive (selfishness) and the trait (helpfulness). In sum, perceivers tend to make multiple inferences about intentional behavior.

The three assumptions just outlined—concerning the primacy of trait attribution, global causal attribution, and single inferences—were highly influential and spawned a rich set of empirical findings (for reviews, see Fiske & Taylor, 2008, and Gawronski, 2004). But these assumptions appear to have distracted researchers from the study of mindreading. In real life, rather than simply deciding whether a person’s behavior reflects personal versus situational causes or sizing up the person’s traits, we often wonder what the person was thinking at a particular moment (Malle, 2004, 2008). To address this challenge, models with greater specificity and complexity are required. In fact, the chronological progression of research reflects this trend. Since Jones and Davis (1965), the research has moved through three phases. The first phase focused on highly abstract content, such as Kelley’s (1973) causal schemata, which distinguished between internal and external causes. The second phase viewed trait attribution as a single inference process (Gilbert et al., 1988; Krull, 1993; Reeder & Brewer, 1979; Trope, 1986). Finally, the third phase addresses the perceiver’s specific thoughts about the beliefs and intentions of others

(Malle, 2004), with an emphasis on how such mindreading is related to trait inference (Kammrath et al., 2005; Read & Miller, 1993, 2005; Reeder et al., 2002). This recent view of social perception as a multiple inference process is a major theme of this article. To appreciate the need for such complexity in theorizing, however, we need to better understand the concept of intentionality and the different ways in which intentional and unintentional acts are processed.

### How Are Intentional and Unintentional Acts Explained?

The preceding discussion suggests that intentional and unintentional actions are explained in qualitatively different ways (Buss, 1978; Fincham & Jaspers, 1980; Kruglanski, 1975; Malle, 2004; White, 1991). The following sections examine these two different avenues of explanation in detail.

#### Unintentional Acts and Global Causal Attribution

When perceivers explain unintentional behavior, they rely on global causal reasoning based on the interplay of internal versus external forces. Building on Heider’s (1958) insights, Kelley (1973) proposed the discounting principle: To the extent that external forces are strong, perceivers will assume internal forces are weaker. The principle readily applies to perceptions of events in the physical world. For instance, suppose a levee broke during a Category 5 hurricane. Was the damage due to (internal) structural weaknesses in the levee or to powerful (external) crashing waves? If the external force is believed sufficient to produce the effect, the internal force can be downplayed as less important. Perceivers use the same logic to explain human behavior that is involuntary or unintentional. On a winter night, suppose we see a man slip on the ice. Is the fall due to clumsiness or to slippery terrain? We would be less likely to label the man a “klutz” if he was coping with glare ice as far as the eye can see. In addition, because the fall was unanticipated, it tells us little about the man’s beliefs or motives. The main point, then, is that when acts are judged to be unintentional, the process of dispositional inference is reduced to a mechanistic tug-of-war between dispositional and situational causes.

#### Intentional Acts and Multiple Inferences About Motives and Traits

Intentional acts open a window to theory of mind (Kozak, Marsh, & Wegner, 2006; Malle & Hodges, 2005) and require a different sort of explanation. Intentional acts tend to be explained in terms of the target

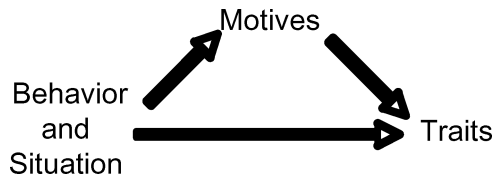


Figure 1. Graphical representation of a multiple inference model of dispositional inference. Intentional behavior in its situational context gives rise to inferences about motives and traits.

person's mental states, reasons, goals, or motives for behaving a particular way (Dennett, 1996; Malle, 1999, 2004; McClure, 2002; Reeder & Trafimow, 2005). For example, suppose Harry announces, "I'm getting a divorce!" Perceivers would want to know what he is thinking, including how he perceives relevant situational factors and what he hopes to accomplish. To capture the rich complexity of these interacting forces, both within and outside the person, a multiple inference approach is required. In this view, information about the precipitating situation (such as a financial crisis or cheating spouse) is of great interest to the perceiver because it helps to clarify the motive for the divorce. In turn, the target person's motives give meaning to the divorce decision and shape further trait inferences about the target. Figure 1 provides a graphical representation of these ideas.

Like an intuitive detective, the perceiver pieces together evidence, guided by the assumption that intentional acts are rational and goal directed. What was the target person trying to do by acting this way under these circumstances? Essentially, the perceiver is looking for a coherent narrative that explains the known facts (Pennington & Hastie, 1992). A good story, of course, implies a goal or motive behind the events. As shown in Figure 1, aspects of both the behavior and the situation contribute to motive identification. Perceivers may employ a variety of related psychological processes as they integrate information about motives (Reeder & Trafimow, 2005), including engaging in simulation or projecting their own motives onto the actor (What would my goals be if I ever filed for divorce?; Ames, 2004; Epley, Morewedge, & Keysar, 2004; Goldman, 2001; Nickerson, 1999), using the logic of covariation (Harry must want to be rich because he never considered divorce until the Duchess fell for him; Kelley, 1973), and employing a process of constraint satisfaction (Given that Harry has never held a job, depends on his wife for money, and she just got fired, I'm guessing he needs another meal ticket; Read & Miller, 1993; Thagard, 1996). Although these examples imply deliberate thinking on the part of the perceiver, the process is not fixed (Kruglanski & Orehek, 2007) and inferences about goals and motives may sometimes occur spontaneously (Fiedler & Schenck, 2001; Hassin, Aarts & Ferguson, 2005; Reeder et al., 2004; Vonk, 1998). It is

also likely that some of these processes are recruited in sequence such that the early ones are relatively more automatic than the later ones.

Inferences about motive are also influenced by factors within the perceiver such as attributional style (Dodge & Coie, 1987), the accessibility of stereotypes about groups or expectations about a particular person (Higgins, 1996; Reeder, 2008), and the assumptions one makes because of cultural background (Burke, 1935/1954; Lillard, 1998; Mills, 1940). Even one's political persuasion can play a role in motive selection (Reeder, Pryor, Wohl, & Griswell, 2005).

Figure 1 implies that inferences about motives contribute to judgments about more enduring characteristics such as traits. Like a detective with a suspect in mind, the perceiver matches motives and traits in an effort to form a consistent "profile" of the person (Anybody who would cheat on his wife for a chance to marry a duchess is a dishonest scumbag!). The process at this point is likely to resemble constraint satisfaction as the perceiver strives for a consistent impression (Asch, 1946; Read & Miller, 1993, 2005). Once again, depending on factors such as the difficulty of the inference, the judgment may be either relatively automatic or deliberate (Kruglanski & Orehek, 2007).

As an example, consider how trait attributions of morality are made for intentional acts of aggression. Reeder et al. (2002) provided their research participants with a description of a soccer player who deliberately "spiked" an opposing player (by driving his cleats into the other's leg). In the conditions of interest, the aggression occurred in response to one of two types of situational encouragement. In one case, the aggression was in response to provocation from an opposing player, who insulted him. In a second case, the aggression was in response to the exceptionally skillful play of an opposing player (i.e., it was clear that the target person's team could not win with the opposing player in the game). In both cases, then, the situation encouraged the expression of aggression. Participants were asked to rate the morality of the aggressor and the question of interest is how the two different situational pressures affected those ratings.

According to a multiple inference model (MIM), perceivers are interested in situational forces surrounding behavior because they help to clarify a target person's motives (Reeder et al., 2002). Indeed, when participants were asked to explain the soccer player's aggression in their own words, they consistently mentioned motives, and the motives differed across the two situational demands for aggression. When the opposing player had been insulting, the explanations centered on a motive for revenge. In contrast, when the opposing player had been playing exceptionally well, the explanations centered on the motive of personal gain (i.e., wanting to win the game). Although revenge is

hardly an admirable motive for aggression, it is more socially appropriate than is the desire for personal gain. MIM suggests that inferences about motive (revenge vs. personal gain) are integrated with trait judgments. Indeed, different inferences about the aggressor's motive prompted different views of his level of morality. Perceivers who viewed the aggressor as motivated by revenge, rather than personal gain, gave him much higher ratings of morality. The overall pattern supports the view that (a) perceivers made multiple inferences about motives and traits and (b) perceivers sought unity or coherence among these various inferences (Asch, 1946; Roese & Morris, 1999).

These findings regarding the soccer player's aggression are difficult to reconcile with a single inference model. According to single inference theories, the presence of strong situational encouragement for aggression—either provocation or the potential for personal gain—should lead perceivers to make discounted trait inferences about the target. That is, perceivers should hesitate to attribute low morality to the target in *both* situations. The results, of course, failed to support this prediction: Perceivers attributed much higher morality to the target in the provocation situation, compared to the personal reward situation. By taking account of the different motives that were implied by the two situations (revenge vs. personal gain), MIM was able to predict the overall pattern of results. In contrast, single inference theories were not designed to address inferences about motive or the manner in which perceivers combine motive and trait inferences. These two limitations prevent single inference theories from offering a complete account of inferences based on intentional behavior.

### Intentionality, Situational Constraint, and Inferences About Motive

If perceivers explain intentional and unintentional acts in different ways, it is important to define intentionality more precisely. First, what criteria do perceivers use to decide if an act was intentional? Second, how is the decision about intentionality influenced by situational constraints surrounding the behavior? For example, suppose an airline passenger was held at gunpoint by terrorists and commanded to hurt an innocent person. If the threatened passenger obeyed the command, is the hurtful act intentional (Woolfolk, Doris, & Darley, 2006)? The answer to the last question is important because only intentional action is explained in terms of the actor's motivational states. In addition to defining intentionality, therefore, this section introduces a distinction between hard and soft situational constraints (Sabini, Siepmann, & Stein, 2001) and indicates its relevance for inferring motives and traits.

### Intentionality Defined

In "Nicomachean Ethics," Aristotle (1941) provided an early discussion of intentionality. He proposed that intentional behavior has its origin within the actor or agent, whereas unintentional behavior has its origin outside the person, as when someone falls after being pushed from behind. Yet perceivers may distinguish subtle gradations of "origin" between these two extremes. For instance, Aristotle described a ship's captain who, when faced with an oncoming storm, threw cargo overboard to prevent the ship from capsizing. Was the captain's behavior intentional? The answer is *yes*, for the purpose of this article. As described in greater detail next, the captain could have responded differently. There was a choice involved, even if the alternative to the captain's action was most ill-advised.<sup>2</sup>

Perceivers may consider a variety of factors when making a judgment of intentionality (Anscombe, 1957; Searle, 1983). In many cases it will suffice to assume that an action is intentional if the actor—by force of will—could have done otherwise (e.g., Aristotle's captain could have kept the ship's cargo onboard). On the other hand, unintentional behavior is "forced," such that the actor could not have done otherwise. For instance, suppose a large wave pushed the captain into a box, causing it to fall overboard. Pushing the box overboard qualifies as an unintentional outcome. By this definition, bodily reactions such as sweating, fainting, and feeling anxious also qualify as unintentional. Likewise, an action that fails to accomplish a desired outcome (e.g., failing an exam) would count as unintentional. According to Malle's (1999, 2004) more detailed analysis, perceivers may consider any or all of five criteria when judging intentionality. Specifically, the sea captain's action of throwing cargo overboard will be judged intentional if the captain *desired* an outcome (saving the ship), *believed* the action would bring about that outcome, *planned* the action, had the *skill* to accomplish the action, and was *aware* of accomplishing the outcome.

It is important to note that intentional and unintentional acts seldom exist in a vacuum. There is a context for every action. People tap their feet when listening to a catchy tune and giggle when they are tickled. The next section examines the interrelationships between situational constraints, intentionality, and inferences about motives.

<sup>2</sup>Social perception researchers have devoted considerable attention to the variable of "choice" (Jones & Harris, 1967). For example, perceivers in the "no-choice" conditions of many attribution studies were asked to form an impression of a person who composed an essay under conditions in which the direction of the essay was assigned by an authority figure (Jones, 1979; Jones & Harris, 1967). Perceivers may, indeed, see this situation as placing constraints on the target. As described in forthcoming sections, however, the target's behavior is nevertheless viewed as an intentional response to these constraints.

### Hard Constraints Versus Soft Constraints and Motive-Relevance

Even when a behavior fits the aforementioned definition of being intentional, perceivers may still view situational constraints as having somehow restricted the actor's freedom. For example, the sea captain may be said to have had "little choice" but to throw cargo overboard. Such shades of gray in the definition of intentionality arise when action occurs in the presence of soft, rather than hard, constraints. Like Aristotle, modern perceivers views *oft constraints* as allowing at least some degree of volition on the actor's part (Woolfolk et al., 2006). Soft constraints, nevertheless, exert an indirect influence on a person's actions by inspiring goal states or motives. Often, the motive appears to involve either reward (You can have my pension if you save the ship!) or the avoidance of punishment (We all die if the ship goes down!). In either case, the actor ultimately retains freedom of action: Regardless, of the consequences, the captain could decide not to throw any cargo overboard. In sum, behavior in the presence of soft constraints is judged to be intentional and, therefore, is typically explained in terms of the actor's motives.

Unlike soft constraints, perceivers view *hard constraints* as compelling circumstances that exert a direct, causal effect on behavior. Recall the example of a powerful wave that knocked the sea captain into a box, sending it overboard. The outcome may be perceived as inevitable, given the force of the wave. The actor's motives become irrelevant because the behavior is an unintentional reaction to the situation.

### Comparing the Effects of Hard Versus Soft Constraints

From MIM's perspective, the defining characteristic of soft situational constraints is that they elicit motive-relevant behavior. Perceivers view the situation (e.g., a monetary bribe) as having an indirect effect on a target person's behavior via its impact on the target's motivation (Harry will do anything for money!). Hard constraints, on the other hand are viewed as having a direct effect on behavior—one that does not involve motives. In the only empirical article to directly compare hard and soft constraints, very different patterns of attribution emerged for the two types of constraint (Reeder, Hesson-McInnis, Krohse, & Scialabba, 2001). Because of its unique status, this article is discussed in detail next.

In one part of the Reeder et al. (2001) studies, participants witnessed a soccer player who, while apparently trying to kick for distance, managed only a 10- to 15-yard kick. The poor performance occurred in the presence of different situational constraints, and participants were asked to judge the motivation and ability

of the target person. One set of experimental variations involved soft constraints: The soccer player had earlier been offered either a \$200 incentive (or bribe) to perform at a low level or a \$200 incentive to perform at a high level. The reward represents a soft constraint because the player was free to ignore its influence. In addition, to the extent the reward did have an influence, it would occur via changes in the player's performance motivation. A second set of experimental variations involved hard constraints: While the player kicked the ball, a steady wind of 30 miles per hour either blew directly in his face (which should inhibit kicking performance) or blew directly at his back (which should facilitate kicking performance). The force of the wind represents a hard constraint because it could not be ignored and its impact can be viewed as involuntary or unintentional.

How did these different types of constraint affect inferences about the soccer player? In the soft constraint case, MIM suggests that perceivers should view the \$200 incentive as influencing the player's level of motivation. Indeed, when perceivers were asked to explain in their own words why the player performed as he did, many of them mentioned his motivation or effort. In addition, inferences about motivation mediated the effect of the soft constraint as it influenced judgments of the player's level of ability. For example, when the target had been offered a bribe for low performance, inferences of motivation were relatively low and inferences of ability tended to be high (He didn't try, so maybe he actually has high ability). When the target had been offered a reward for high performance, however, inferences of motivation were high and inferences of ability were low (He tried his best, so I guess he can't kick very far). Notice that perceivers saw the situational demand as having opposite effects on motivation and ability. Across the soft constraint conditions, the correlation between inferred motivation and ability was quite negative ( $r = -.52$ ). In the presence of soft constraints, then, perceivers sought unity in the impression by reconciling their inferences of motivation and ability in an inverse fashion. Heider (1958) noted that ability and effort are typically negatively related such that a person who can accomplish a difficult task with minimal effort is assumed to have higher ability than someone who puts forth greater effort.

A very different pattern of findings emerged in the hard constraint conditions, which involved the presence of a strong wind. Perceivers appeared to engage in simple causal reasoning with the wind as an external causal force and the player's motivation and ability as internal causal forces (Kelley, 1973). For example, when the wind blew directly in the target's face (as an inhibitory causal force), perceivers attributed relatively high effort and high ability. In other words, because the external force detracted from performance, both internal forces were judged to be stronger. On the other

hand, when the wind blew at the target's back (facilitating performance), inferences about both motivation and ability were lower. Regardless of the direction of the wind, perceivers treated external and internal causal forces as if they were in opposition. It is also worth noting that perceivers did not attempt to reconcile the two internal factors (of motivation and ability) in the expected way. Unlike the soft constraints, perceivers saw the direction of the wind as having *similar* effects on motivation and ability. Across conditions, a strong positive correlation emerged between motivation and ability ( $r = .60$ ). The direction of this correlation is, of course, exactly opposite of that in the soft constraint conditions.

Thus, a hard constraint led perceivers to employ simple causal reasoning, rather than MIM's motive-relevant integration process. Notice that, although the impact of the wind as a hard constraint had some effect on judgments about the player's motivation, this effect seems quite different than that of the soft constraint produced by a financial incentive. The wind did not seem to inspire or persuade the player to try harder (or refrain from effort) in the way that the incentive did. In addition, in the hard constraint conditions, perceivers apparently did not attempt to integrate inferences about motivation and ability in the usual fashion described by Heider (1958).

The findings reviewed thus far provide encouraging evidence for both MIM's analysis and the distinction between hard and soft situational constraints. But how relevant is this theoretical perspective for the vast majority of studies on dispositional inference? The next two sections apply this perspective to a broader swath of literature. The literature review aims to answer several interrelated questions. Does the distinction between intentional behavior (in response to soft constraints) versus unintentional behavior (in response to hard constraints) work well as an organizing framework? Does the distinction account for existing findings and generate new insights? The answers to these questions should better delineate the boundary conditions of MIM's analysis.

Although the literature on dispositional inference is vast (Fiske & Taylor, 2008; Gawronski, 2004; Gilbert, 1998; McClure, 1998; Uleman, Saribay, & Gonzales, 2008), the majority of studies can be grouped into one of five categories: *attitude attribution* (Jones & Harris, 1967), *moral attribution* (Bierbrauer, 1979; Reeder & Spores, 1983), *ability attribution* (Reeder et al., 2001), and studies utilizing either the *silent interview paradigm* (Snyder & Frankel, 1976) or the *quiz-role paradigm* (Ross, Amabile, & Steinmetz, 1977). Coincidentally, perhaps, most research falling within the first three of these categories pertains to intentional behavior in response to soft situational constraints. In contrast, most research falling within the latter two categories pertains to unintentional behavior in response

to hard constraints. These five lines of research are reviewed next.

### Intentional Behavior in Response to Soft Constraints

MIM suggests that perceivers view soft constraints as allowing some degree of freedom on the part of a target person exposed to them. Moreover, to the extent that the perceiver views the situation as having impact, that impact is thought to occur via changes in the target person's motivations. In turn, perceivers integrate inferences about motivation and traits. There are at least two important implications of this analysis for our review. First, if perceivers fail to notice soft constraints or fail to infer a motive in response to them, perceivers are unlikely to adjust their trait judgments. In such cases, perceivers should make behavior-correspondent trait judgments that appear to be little influenced by the situation.

Second, and of greater importance, depending on the motive that is inferred, perceivers should alter their trait judgments in different ways. In general, perceivers will seek unity or consistency between motives and traits (Asch, 1946; Asch & Zukier, 1984; Heider, 1958; Roese & Morris, 1999). But the basis of that consistency can take a variety of forms (Roese & Morris, 1999). Perhaps the most obvious basis would involve evaluative consistency (Reeder et al., 2004). For example, suppose Daphne made a large donation to a charitable foundation. The act itself implies positive traits such as generosity and helpfulness. But if Daphne is thought to have made the donation solely for selfish reasons (e.g., to seize control of the foundation's board of directors), that motive appears inconsistent with the traits of generosity and helpfulness. When perceivers resolve this inconsistency, they are unlikely to attribute a high degree of trait-level helpfulness to Daphne. Of course, if Daphne is thought to have made the donation from a positive motive (e.g., to honor her parents), that motive might actually enhance trait attributions of helpfulness.

In addition to evaluative consistency, there are other bases of consistency resolution. For instance, we have already seen that perceivers reconcile inferences about motivation (to perform well) with inferences about ability, such that the two are inversely related (Heider, 1958; Reeder et al., 2001). In other cases, the nature of the consistency resolution is less obvious. For example, some studies have described a target person who received instructions (Jones & Harris, 1967) or orders (Bierbrauer, 1979) from an authority figure. Perceivers then learn that the target complied with the authority. What motives (if any) do perceivers infer in this situation? How are these motives reconciled with trait attributions? We address these issues next.

## Attitude Attributions

In pioneering research by Jones and Harris (1967), perceivers were instructed to infer the “true” attitude of a target person who wrote an essay on a controversial topic (i.e., either defending Fidel Castro’s record in Cuba or criticizing that record). The situational constraints surrounding the target’s behavior were manipulated such that in the “free choice” condition, the target had been allowed to write on either side of the issue. In the assigned condition, however, the target had been told to support a particular side of the issue and the resulting essay complied with the assignment. Two important results emerged, one expected, the other unexpected. The expected finding was that perceivers inferred more extreme, essay-correspondent attitudes in the free choice than in the assignment condition. In other words, participants showed some evidence of discounting the target’s attitude in the assignment condition. The unexpected finding was that the extent of discounting in the assignment condition was “incomplete.” That is, perceivers still tended to infer attitudes in line with the direction of the essay—demonstrating the so-called correspondence bias (Jones, 1979).

From the standpoint of MIM, both the free choice and assignment conditions above represent soft constraints. By definition, the target in the free choice condition had total freedom to write in favor of Castro or against Castro. Presumably, the target’s choice of essay was motivated by a desire to express his or her personal attitude toward Castro. But what about the target in the assigned condition? According to the principle of *could have done otherwise*, the target in the assigned condition also had a choice. The target was not physically compelled to write a particular type of essay. Indeed, the pressures applied to the writer in the Jones and Harris (1967) situation are not nearly as strong as those applied to participants in the Milgram (1974) obedience experiments. Yet people are surprised that Milgram’s participants obeyed the experimenter (Bierbrauer, 1979), implying that even Milgram’s participants had a choice. In addition, within the attitude attribution paradigm, perceivers expect that people with strong attitudes on one side of the issue are somewhat unwilling to write an essay opposed to their preferred position (Gawronski, 2003a; Reeder, Fletcher & Furman, 1989). Such unwillingness, of course, implies that there is a choice to be made. For these reasons, then, the situational pressures applied in the attitude attribution paradigm can be described as soft constraints. The question of interest, then, is what motives are thought to underlie behavior in the assigned condition? The next section examines this question.

**Assigned vs. an ulterior motive.** The finding of correspondence bias proved to be remarkably robust (Gawronski, 2004; Gilbert & Malone, 1995; Jones,

1979). Nevertheless, a slight change in the attitude attribution paradigm can provide a potent antidote for the bias. Fein and his colleagues demonstrated that when perceivers suspect an ulterior motive as the reason for why the target wrote as he or she did, perceivers no longer make attitude-corresponding attributions (Fein, 1996; Fein, Hilton, & Miller, 1990). According to Fein (1996), an ulterior motive leads to a state of suspicion, which is accompanied by more sophisticated attributional processing whereby perceivers essentially suspend judgment about the target person’s attitudes and traits. Participants in one of these studies read a speech on a controversial topic written by a student who conducted a summer internship under a professor (Fein et al., 1990). In the assigned essay condition, the direction of the speech was said to have been selected by the internship program, rather than the student. In the ulterior motive condition, however, the student was allowed to choose which side of the issue to support. But the “choice” came with a twist: The professor told the student the particular side of the issue that he personally endorsed. Because the student’s speech was always consistent with the assignment or the professor’s preferred position, participants in ulterior motive condition might suspect that the student aimed to ingratiate himself with the professor. The dramatic finding was that participants in the ulterior motive condition attributed a rather neutral, middling attitude to the student, whereas those in the assignment condition demonstrated the usual correspondence bias by attributing extreme attitudes in line with the student’s speech.

Notice that Fein’s (1996) suspicion model relies on greater attributional processing to account for why the ulterior motive had its effect. In contrast, MIM draws attention to the type of motive that was inferred (if any). In addition, MIM suggests that perceivers integrate inferences of motive with attitude attributions. The motive for the student’s behavior seems particularly clear in the ulterior motive condition: The student wanted to impress the professor. In fact, perceivers may be predisposed to notice any motive that suggests self-interest on the part of others (D. T. Miller, 1999; Vonk, 1998). Given that perceivers inferred the motive of self-interest, that motive would likely be seen as inconsistent with the notion that the student was expressing his true, personal attitude in his speech.

But what motive might be inferred in the assigned speech condition? Perceivers who heard that the speech direction had been assigned by a nebulous entity such as the internship board might have difficulty identifying a motive for the student’s compliance. Even if perceivers did identify a motive, such as a need to conform or obey authority, it is unclear if these motives were seen as inconsistent with the student’s having expressed his true attitude in the speech. For example, Western perceivers who adopt an individualist

perspective, may not see a motive to “fit-in” (or to avoid embarrassment) as particularly compelling (Sabini et al., 2001). MIM raises the possibility, then, that perceivers in the assigned speech condition either failed to infer a motive or failed to see that motive as inconsistent with an extreme attitude attribution.

**Testing MIM in the attitude attribution paradigm.**

A study by Reeder and Ronk (2008) provided a preliminary test of MIM’s account of attitude attribution. Perceivers learned about a student named Kimberly who wrote an essay that opposed increased government spending for the U.S. space program, NASA. The essay was written under one of three levels of situational constraint: free choice, assigned essay, or an ulterior motive. In the *free-choice condition*, a professor told Kimberly to make her own decision about the issue. In the *assignment condition*, the professor told Kimberly to take an essay position opposed to increased funding for NASA. Finally, in the *ulterior motive condition*, perceivers learned that Kimberly was eavesdropping on her professor over lunch when she heard him declare that “NASA was a disgrace . . . and a waste of the taxpayer’s money.” Later that week, the professor asked Kimberly to write the essay under conditions similar to the free choice condition. Thus, it was clear that Kimberly might have an ulterior motive for choosing to oppose funding for NASA.

Perceivers were invited to explain Kimberly’s behavior in their own words: “Why do you believe Kimberly wrote the type of essay that she did?” These open-ended accounts provided clear evidence that perceivers concentrated on different motives in the three constraint conditions. Those in the free choice condition focused on “personal expression” (Kim wanted to express her personal opinion), those in the assigned essay condition focused on obedience (Kim wanted to obey the professor), and those in the ulterior motive condition focused on self-interest (Kim wanted to get a good grade). As predicted by MIM, these three motives resulted in different patterns of attitude attribution. Attitude attributions in the free-choice condition were the most extreme (in the direction of the essay). Attitude attributions were significantly less extreme in the assigned essay condition and significantly lower still in the ulterior motive condition. Mediation analysis (Kenny, Kashy, & Bolger, 1998) indicated that the decrease in attitude attribution in the assigned essay condition (relative to the free-choice condition) was mediated by inferences of an obedience motive. Likewise, the large decrease in attitude attribution in the ulterior motive condition was partially mediated by inferences of self-interest.

The alert reader may have noticed that Fein and his colleagues (Fein, 1996; Fein et al., 1990) typically found little attitudinal discounting in their assigned essay condition, whereas in the Reeder and Ronk (2008)

research, the discounting tendency was reliable in the assignment condition. This difference may be due to the manner in which the assignment condition was operationalized. Fein et al. (1990) implied that the essay assignment came from a vague entity called the “summer internship program,” whereas Reeder and Ronk identified a professor as the source of the essay assignment. With the professor as a clear authority figure, perceivers might have been more likely to infer an obedience motive and, consequently, discount their attitude attributions. In much of the correspondence bias literature, however, the assigned essay constraints may more closely resemble the vague constraints employed by Fein and his colleagues (Fein, 1996; Fein et al., 1990). Perceivers may notice such constraints but fail to “translate” them into an inference about motive. In part, the tendency to overlook a motive to “fit in” or obey may relate to cultural assumptions of Western individualism that downplay such motives (Nisbett, Peng, Choi, & Norenzayan, 2001; Sabini et al., 2001). In the absence of an imposing authority figure, Western perceivers may not see others as particularly motivated to follow assignments or directions.

Things are quite different in the case of an ulterior motive. The motive brings to mind untrustworthiness or even treachery. Perceivers seem particularly attuned to detecting cheating behavior (Cosmides, 1989) and the selfish motivation that appears to underlie it (D. T. Miller, 1999; Vonk, 1998). Consequently, perceivers in the ulterior motive condition are especially likely to infer a self-interest motive. The self-interest motive appears inconsistent with the notion that the essay writer was expressing his or her true personal attitude, resulting in the strong discounting tendency observed in this condition.

**Distancing cues.** A variety of factors affect the magnitude of the correspondence bias, including the salience of situational constraints (Trope & Gaunt, 2000), the cognitive demands placed upon the perceiver (Gilbert et al., 1988), perceiver’s expectations about what people are willing and able to do when assigned to write a particular essay (Gawronski, 2003a; Reeder et al., 1989), and perceptual factors that govern the identification of ambiguous behavior (Trope, 1986, 1998). Given so many determinants of the bias (Gilbert & Malone, 1995), space does not permit a full review. But MIM’s analysis is particularly congenial to studies that show perceivers will refrain from making correspondent inferences in the presence of “distancing cues,” which signal a person’s motives (Fleming, 1994; Fleming & Darley, 1989; J. D. Johnson, Simmons, Trawalter, Ferguson, & Reed, 2003; Krull et al., 2008).

For example, Fleming and Darley (1989) proposed that when perceivers are confronted with an example of situationally constrained behavior, they look for

cues that communicate the intentions (or motives) of the target person. *Embracing cues*—such as when a person expresses delight when assigned to read aloud a particular essay—suggest that the person intends to convey his or her personal attitude while reading the essay. In contrast, *distancing cues*—such as a frown or grimace—would suggest that the person has other motives for reading the essay. For instance, perceivers might infer that the person will read the essay because of feelings of obligation to the experimenter. Indeed, Fleming and Darley found that when the target appeared delighted by the essay assignment, perceivers attributed an essay-correspondent attitude that did not differ from attitudes attributed in a free-choice condition. But when the target appeared disappointed by the assignment, perceivers were less likely to see the essay as reflecting the target's personal attitude.

In general, perceivers rely on behavioral style and nonverbal cues as important sources of information about a person's motives. Krull and his colleagues (2008) presented information about a teenager whose mother asked her to help an elderly neighbor whose lawn needed mowing. In reaction to her mother's request, the teenager agreed either in a cheery manner or with grumbling acquiescence. The teenager's "willingness," in this instance, can be viewed as reflecting a motive to either help the neighbor or (reluctantly) obey her mother's request. Not surprisingly, perceivers formed a more positive impression of the teenager when she helped willingly. Two additional findings testify to the power of willingness information. First, cues about willingness had a stronger impact on impressions of the teenager than the actual amount of help she offered to the neighbor (e.g., whether she mowed both the neighbor's front and back lawn vs. just the back lawn). Second, when perceivers were placed under cognitive load (by being asked to memorize a nine-digit number), the effect of willingness information was *enhanced*. Apparently, cues about willingness are both powerful and processed even when cognitive resources are limited.

### Moral Attributions

**Moral judgments about transgressions.** A person's bad acts carry a great deal of weight in impression formation (Jones & Davis, 1965; Peeters & Czapinski, 1990; Reeder & Brewer, 1979; Skowronski & Carlston, 1989; Wojciszke, Brycz, & Borkenau, 1993). For instance, Reeder and Spores (1983) provided participants with a description of a target person who visited a pizza parlor with his date. When an employee took their order and disappeared into a back room, the couple noticed a jar designed to solicit money for a charity. The situational demands surrounding the target's behavior were manipulated by having the target's date suggest that he either make a donation to the charity or steal the money already there.

In response to the situational demand, the target then either made a donation or stole the money. Perceivers who learned that the target made a donation judged him differently, depending on the situation: When his date had requested the donation, perceivers judged him to be relatively less moral. This finding is in line with the classic discounting tendency (Kelley, 1973). On the other hand, when the target stole from the charity jar, he was judged to be immoral, regardless of the situational demands. The basic finding whereby bad acts lead to correspondent attributions of low morality is quite robust (McGraw, 1985, 1987; Trafimow & Trafimow, 1999; Vonk & van Knippenberg, 1994).

Reeder and Spores (1983) originally accounted for their results by referring to trait-behavior expectations (Reeder, 1993; Reeder & Brewer, 1979). Accordingly, perceivers rely on abstract expectations about the kind of behaviors persons with different traits perform. For instance, persons with a moral trait are expected to act moral at all times, whereas persons with an immoral trait are expected to act in either immoral *or* moral ways, depending on the situation. The asymmetry in these trait behavior expectations nicely accounts for the Reeder and Spores (1983) data: Because only immoral persons are thought to ever engage in immoral acts, immoral behavior leads perceivers to attribute strong behavior-correspondent inferences of low morality.

MIM offers an alternative account of Reeder and Spores (1983) data in terms of inferred motives. Consider the two crucial conditions in which the target went along with his date's request. In the first, the date requested a donation and the target complied. In the second, the date suggested stealing and the target complied. In both instances the target might be perceived as motivated by ingratiation or conformity (wanting to please his date). From MIM's perspective, the issue then becomes how an ingratiation motive meshes with inferences of about moral and immoral traits. In the case of the target's donation behavior, the ingratiation motive could appear inconsistent with the correspondent trait of high morality (he cares more about pleasing his date than helping the charity). This inconsistency was apparently resolved by discounting the idea that the target had high morality. In the case where the target stole the money, however, the ingratiation motive seems entirely consistent with a corresponding immoral trait. Consequently, the target would be seen as immoral, despite the fact that his bad behavior appears to have been encouraged by his date. These patterns fit with the notion that perceivers reconcile inferences of motives and traits in the final impression.

Up until now, it may appear that both trait-behavior expectations (Reeder, 1993) and an inferred motive account (Reeder et al., 2004) can explain attributions of morality. But MIM's approach is more flexible. The trait-behavior analysis dictates that an immoral act will lead to a (correspondent) immoral trait inference,

regardless of situational demands surrounding that act. In sharp contrast, MIM suggests that perceivers will take into account the motive behind the immoral behavior. If the motive is viewed as justified or positive in nature, perceivers are less likely to infer an immoral trait. For example, a woman who steals to feed her starving children might not be judged as immoral.

MIM's superiority over the trait-behavior analysis is evident in attributions about aggression (Reeder et al., 2002). As mentioned earlier, perceivers learned about a soccer player who aggressed against an opposing player in different situations. In one scenario, the aggression occurred in response to provocation (i.e., an earlier insult). Perceivers inferred a relatively positive motive (i.e., revenge) and the aggressor was not viewed as particularly immoral. In other words, attributions of immorality were discounted because of the somewhat justifiable motive. But when the scenario implied the aggressor had a selfish motive (i.e., wanting to win the game), the aggressor was perceived as quite immoral. In this latter situation, no trait discounting occurred. MIM's account in terms of inferred motives, therefore, allows precise predictions about when situational demands will lead to discounted trait attributions. In comparison, alternative models of dispositional inference that ignore the target person's motives cannot account for why situations that encourage aggression sometimes lead to discounting an immoral trait and other times do not.

**Moral judgments about Milgram's obedient teachers.** Milgram's (1963, 1974) studies of obedience are among the most famous in social psychology (Kassin, Fein, & Markus, 2008). In Milgram's basic procedure, an experimenter instructed research participants to play the role of a teacher who delivered painful electric shocks to an innocent person (the learner). When the teachers hesitated to obey, the experimenter issued a series of prompts to goad the teachers into compliance (e.g., You must go on!). The surprising result was that approximately 65% of the teachers obeyed the experimenter until the end of the procedure, delivering a 450-volt shock. How do naive perceivers interpret the behavior of Milgram's teachers? As described next, an analysis in terms of MIM challenges long-held views on this question (Reeder, Monroe, & Pryor, 2008).

Two unwarranted assumptions appear to have guided the early research on impressions of Milgram's teachers (Bierbrauer, 1979; Safer, 1980). The first was that naive perceivers fail to recognize or appreciate situational demands (i.e., the experimenter's commands). The second was that perceivers make harsh judgments about the obedient teachers, seeing them as especially aggressive and, perhaps, even sadistic. The genesis of these assumptions can be traced to the feeling of surprise most people experience when first hearing

about the Milgram results (How could the teachers keep shocking an innocent person?). Social psychologists reasoned that such feelings of surprise could arise only if perceivers were ignoring the social pressures applied by Milgram's experimenter (Ross & Nisbett, 1991). Moreover, given that perceivers fail to appreciate the situational reasons for the teacher's delivery of the shocks, the conventional wisdom was that perceivers should also view the teachers as especially immoral (i.e., aggressive). As described next, each of these assumptions proved lacking when it was subjected to direct examination.

MIM begins with the assumption that perceivers view Milgram's teachers as having made a voluntary choice about whether they would obey the experimenter (Reeder et al., 2008). As such, MIM implies that perceivers will search for situational cues that explain the teacher's motives. What situational cues might perceivers notice (A. G. Miller, 1984; Ross, 1988)? Milgram's teachers coped with two conflicting situational forces emanating first from the experimenter (e.g., You must go on!) and second from the learner who protested the shock escalation (e.g., Experimenter, get me out of here . . . !). If perceivers look to these situational forces for clues about the teacher's motivation, they are likely to see the teacher as motivated to either please the experimenter (e.g., obey) or help the learner. The point to notice is that these motives are more positive than those implied by early research on this topic (Safer, 1980). Thus, MIM leads to the expectation that (a) perceivers will process situational forces in an effort to infer the teachers' motives and (b) inferences about motive will focus on obedience and helpfulness (rather than on a motive to hurt the learner).

Several recent studies put these expectations to the test (Reeder et al., 2008). In one study, perceivers watched segments of Milgram's classic film, titled *Obedience*, in which a teacher is shown proceeding through the full experimental protocol, administering a 450-volt shock to the learner. Accompanying that segment were the various verbal prompts the experimenter used to goad the teacher into compliance. After watching the film, perceivers were asked to explain in their own words why they believed the obedient teacher behaved as he did. Supporting MIM, these open-ended explanations focused primarily on situational beliefs (e.g., that the teacher was merely following the experimenter's orders) and on the teacher's motives (e.g., wanting to obey the experimenter). In contrast, few perceivers mentioned the traits or dispositional characteristics of the teacher. The low frequency of traitlike explanations has also been observed when people explain real-life events (Malle, Knobe, & Nelson, 2007). These findings question the prevalence of lay dispositionism, which maintains that Western perceivers rely on dispositional explanations and tend

to neglect situational factors (Ross & Nisbett, 1991). After watching the film, perceivers also rated the specific motives of Milgram's obedient teachers. Overwhelmingly, perceivers saw the teacher as motivated to obey the experimenter and help the learner, rather than to hurt the learner.

An additional study in the same sequence found that perceptions of motives tended to mediate inferences of morality (Reeder et al., 2008). Perceivers read about an obedient teacher in the Milgram paradigm who had been exposed to one of three levels of situational constraint. In the low-coercion condition, the experimenter was not present to monitor the teacher's compliance. A moderate-coercion condition was similar to the basic procedure discussed earlier in which the experimenter employed verbal prompts to secure the teacher's compliance. Finally, the high-coercion condition described an experimenter who threatened to shock the *teacher* if he did not comply. Not surprisingly, perceivers attributed rather negative motives to the obedient teacher in the low-coercion condition. In fact, only in this low-coercion condition did perceivers see the teacher as more motivated to hurt the learner than to help the learner. Thus, in the relative absence of situational pressure from the experimenter, perceivers will make harsh motive attributions about the teachers. These inferences of motive also mediated the effect of the situational constraint manipulation as it impacted trait judgments of morality. For instance, perceivers who saw the teacher as motivated to hurt the learner also tended to attribute low morality to the teacher.

MIM suggests a unique role for situational factors in the process of dispositional inference. Situational cues inform dispositional inference by helping to identify a target person's motives. Thus, perceivers who notice specific situational factors are likely to attribute to specific, corresponding motives. The study just described allowed for a test of this assumption. Perceivers were asked to rate the importance of various situational factors, in addition to attributing motives. Those who stressed the importance of the experimenter taking responsibility or the experimenter's domineering behavior tended to see the teacher as motivated to obey the experimenter. In contrast, those who stressed the importance of the learner's pleas for help tended to see the teacher as motivated to help the learner. Perceivers apparently paid close attention to situational factors because they pointed the way toward the teacher's motives. More generally, these findings highlight the important role played by situational cues in person perception (Kammrath et al., 2005; Trafimow, 1998; Wright & Mischel, 1988).

### Ability Attributions

An earlier section of this article discussed research on ability attributions for a target person's low

performance (Reeder et al., 2001). When the low performance occurred in the presence of soft situational constraints, perceivers viewed the situation as exerting its impact via the target's level of motivation. For instance, when the target had been offered a bribe to perform poorly, the target was seen as having low motivation. In turn, perceivers who inferred low motivation tended to infer relatively higher ability. Perceivers seemed to be saying, "If the guy didn't try, I can't rule out the possibility that he has high ability." Thus, when integrating information about the target, perceivers followed the Heiderian (1958) notion that effort and ability tend to be inversely related.

But how do perceivers process high performance that occurs in the presence of soft constraints? Heider (1958) noted that perceivers tend to see high performance as requiring both high effort and high ability (Reeder & Brewer, 1979). In other words, the expectation of a negative correlation between effort and ability is less likely at higher levels of performance. Reeder et al. (2001) provided evidence on this point. Some perceivers were informed that the target person performed at a high level (i.e., the target kicked a soccer ball 45–50 yards). Once again, the performance took place in the presence of a financial incentive for either low performance or high performance, respectively. In line with Heider's expectations about high performance, perceivers attributed both high motivation and high ability to the target. Also, the (negative) correlation between attributed motivation and ability was reduced to nonsignificance ( $r = -.09$ ). Of greater interest, the tendency to attribute relatively high motivation and high ability remained relatively constant across the two situational demands. Perceivers in the high-performance conditions seemed to be saying that the soft constraints surrounding the performance were more or less irrelevant (i.e., regardless of the money, it takes both motivation and ability to perform well).

Overall, then, attributions of ability demonstrated a familiar pattern (Reeder & Brewer, 1979): Attributions of ability based on low performance were significantly affected by situational forces (the financial incentive), whereas attributions of ability based on high performance were relatively unaffected by those same situational forces. The present analysis expands that work by incorporating inferences about motivation into the analysis.

### Review

In summary, people explain intentional behavior in terms of an actor's motives. Perceivers seem more interested in the specific beliefs and motives of others than in their abstract traits. By drawing attention to perceived motives, MIM broadens our understanding of the literatures on attitude, morality, and ability attribution. In each of these domains, MIM challenges

existing theories and generates new empirical findings. Moreover, if MIM is correct, the attribution process should be much simpler in the case of unintentional behavior. The next section examines this possibility.

### Unintentional Behavior in Response to Hard Constraints

People sometimes cope with situations over which they have no control. At business meetings, subordinates respond to the boss's choice of agenda items, and on the sporting field, soccer players sometimes have to kick the ball in the face of a stiff wind. Actors in the presence of these hard constraints cannot ignore the situation, which tends to have an inescapable—motive-irrelevant—influence on their performance. Consequently, judgments about the actor should reflect simple causal reasoning, guided by the discounting principle that underlies traditional theories of dispositional inference (Gilbert, 1998; Kelley, 1973). Research conducted within the silent interview paradigm (Snyder & Frankel, 1976) and the quiz-role paradigm (Ross et al., 1977) falls within this category.

#### The Silent Interview Paradigm

In the silent interview paradigm (Gilbert et al., 1988; Snyder & Frankel, 1976), perceivers are shown a videotape of a target person who behaved in anxious manner in the course of an interview. Although the sound is turned down, perceivers are told that the target was asked about either anxiety-provoking topics (embarrassing incidents) or less stressful topics (such as world travel). When perceivers learn about the interview topic after watching the interview, they show the standard discounting tendency: The target is seen as less dispositionally anxious when the interview topic was anxiety provoking as opposed to less stressful. Notice that the manipulation of discussion topic represents a hard constraint because the target person's reaction to the topic (e.g., showing anxiety) is presumably unintentional. As such, inferences about the target's motives are probably irrelevant to the judgment process.

Given the relative simplicity of this paradigm, it is not surprising that researchers have relied on it as a foundation for demonstrating more sophisticated aspects of the attribution process. For instance, Trope (1986) used the paradigm to demonstrate the role of perceptual factors on the identification of ambiguous behavior. His research indicates that when perceivers know the interview topic prior to watching the interview, their expectations can affect the attribution process both at a relatively automatic behavior identification stage (e.g., perceivers who expect anxious behavior tend to "see" anxious behavior) and at a more deliberate attribution stage (e.g., perceivers attribute

a less anxious trait to the interviewee because of the embarrassing topic). In addition, Gilbert and his colleagues (1988) used the paradigm to demonstrate the importance of cognitive resources. They found that perceivers who were cognitively busy (memorizing an eight-digit number) did not employ the discounting principle. Instead, busy perceivers attributed relatively high levels of anxiety to the target person regardless of the nature of the interview topic.

#### The Quiz-Role Paradigm

In many social encounters, one party is allowed to dictate the nature of the interaction. For instance, at thesis meetings professors typically choose the questions that students must answer. This power asymmetry allows the person in charge to shape the interaction to his or her own benefit. A professor may ask the student to expound upon obscure issues related to the professor's area of expertise. (Please compare Immanuel Kant's deontological view of ethics with utilitarianism.) A common result is that the person in charge "looks good," whereas other participants suffer from their disadvantaged position.

The quiz-role paradigm, developed by Lee Ross and his colleagues, examined the kinds of attributions participants make in such a situation (Ross et al., 1977). In the major variation of this paradigm, participants play the role of observers who are led to believe that they are witnessing a quiz game in which one person was assigned by chance to be a "contestant" and another person was assigned to be the "questioner." The questioners are encouraged to generate 10 difficult questions in order to "stump" the contestant (What was the last name of the artist Michelangelo?). The observers then watch a simulated question-and-answer session in which the contestant performs poorly, answering only three or four questions correctly (Gawronski, 2003b; J. T. Johnson, Jemmott, & Pettigrew, 1984). Observers are then asked to rate the general knowledge possessed by the questioner and the contestant. Do observers' ratings take into account the role-conferred advantage enjoyed by the questioner? The results clearly suggest that they do not: Questioners are typically rated much higher in general knowledge than are contestants.

Like the silent interview paradigm, the situational factors in the quiz game paradigm represent hard constraints that have an unavoidable or unintentional impact on the quiz participants. The contestants, at least, cannot willfully avoid the disadvantages that accompany their role. In fact, the role assignment may be viewed as a manipulation of task difficulty because the questioner enjoyed the advantage of being able to draw from whatever unique experiences or esoteric knowledge he or she possessed. In contrast, the contestant was forced to cope with the disadvantage of not sharing some of those same experiences.

Researchers have identified a number of factors that underlie the robust attributional bias in the quiz-role paradigm (Gawronski, 2004). The most important concerns the salience of the role assignment. Observers either do not notice the “invisible jail” in which the contestant is imprisoned or, if they do notice it, observers underestimate its importance. Indeed, when observers are directly asked to consider the effect of the role assignment (How well would the contestant perform if he/she had been selected as the questioner?), the bias is reduced (J. T. Johnson et al., 1984). Nevertheless, even among observers who indicate high situational awareness (acknowledging that the contestant might perform better if the roles were reversed), the bias is still evident. In other words, observers rate the questioner as having superior general knowledge even when they explicitly recognize the causal power of the role assignment.

The seeming disjunction between causal reasoning about the situation and dispositional judgments has been noted previously (Hamilton, 1998; McClure, 1998; Reeder et al., 2004; Smith & Miller, 1983). Rather than causal attributions setting the stage for dispositional attribution, perceivers may spontaneously infer a trait and only later make an adjustment or “correction” for the causal impact of situational forces (Gilbert & Malone, 1995; Uleman, Newman, & Moskowitz, 1996). The subsequent correction for situational factors often turns out to be insufficient, perhaps reflecting an anchoring-adjustment bias (Jones, 1979) or a lack of motivation and cognitive resources to engage in that adjustment (Gilbert & Malone, 1995). The disjunction between causal attribution and general knowledge attributions (J. T. Johnson et al., 1984) may also be due to implicit trait-behavior expectations about ability, which imply that persons with limited general knowledge could not generate difficult questions (Gawronski, 2003b, 2004). In the quiz-role simulations described previously (J. T. Johnson et al., 1984; Ross et al., 1977), it appears that the questioner generated 10 very difficult questions—a feat that implies high general knowledge. Observers may indeed recognize the situational advantages enjoyed by the questioner yet still see the difficult questions as diagnostic evidence of the questioner’s high level of general knowledge (Gawronski, 2004).

The most striking aspect of correspondence bias in the quiz-role paradigm is just how robust it is. When judging the quiz game participants, observers fail to account for the role constraints. This pattern of insufficient discounting for the situation contrasts markedly with the strong discounting tendencies observed when perceivers infer the motives underlying many intentional behaviors (Fein, 1996; Reeder et al., 2008; Reeder et al., 2004). One explanation for this difference is that hard constraints (such as role assignments) are often abstract and difficult for perceivers to conceptualize in the process of trait inference. In

contrast, perceivers may be highly alert to some types of motives (particularly those related to self-interest) and find it easy to engage in trait discounting based on such motives.

## Conclusions

A number of insights emerge from the preceding discussion. Of greatest importance, the distinction between intentional and unintentional behavior is fundamental to understanding dispositional inference. When explaining intentional action, perceivers focus on the motives that underlie the behavior. In turn, MIM suggests that inferences about motive lay the foundation for judgments about a target person’s traits. The traditional focus on situational versus dispositional causality in the attribution literature has serious limitations as a description of the way that naive perceivers describe intentional acts (Malle, 2004; Sabini et al., 2001). The problem is immediately apparent when one tries to classify a motive in terms of the situational versus disposition dichotomy. For example, if we say that one of Milgram’s (1963) participants delivered painful shocks to an innocent person because he wanted to placate the experimenter, how are we to classify this obedience motive? Clearly the motive resides within the obedient participant. But the motive also directly implies situational influence coming from the experimenter. A motive, therefore, can simultaneously imply both dispositional and situational causality (Burke, 1935/1954). Indeed, when people are asked directly to allocate causality for behavior, they do not view situational and dispositional causes as mutually exclusive and often endorse an interactionist perspective (Uleman et al., 2008).

MIM offers a new perspective on a broad swath of the literature concerning attributions of attitude, morality, and ability. For example, numerous studies in the attitude attribution paradigm show that perceivers typically infer attitudes in line with essays or speeches that were produced under conditions of constraint (Gilbert & Malone, 1995; Jones, 1979). This failure to employ the discounting principle is particularly apparent when the target person’s behavior is constrained by the instructions of an authority (Fein, 1996; Jones & Harris, 1967). Yet the bias disappears when there appears to be an ulterior motive for the target’s behavior (Fein, 1996). MIM’s analysis begins with the realization that behavior in this paradigm is intentional and, thus, motive driven. Accordingly, differences in attitudinal discounting can be traced to the different motives that are inferred in each case (Reeder & Ronk, 2008). When the direction of the essay was assigned by an authority, perceivers tend to infer that the target was motivated by an obedience motive (e.g., to “fit in” or avoid embarrassment). In contrast, when the situation created

the impression that the target had an ulterior motive, perceivers tended to infer a selfish motive. Western perceivers may typically underestimate the power of an obedience motive (Sabini et al., 2001) but place strong emphasis on selfish motives (D. T. Miller, 1999; Vonk, 1998). The differential importance placed on these two motives apparently results in different levels of attitudinal discounting. Traditional models of dispositional inference that overlook motive attribution are ill-equipped to account for such findings.

Emerging evidence indicates that perceivers think in concrete terms as they strive to make sense of people's behavior. When perceivers use their own words to explain a target person's actions, these explanations focus on specific mental states such as the beliefs and motives of the target (Malle, 2004; Malle et al., 2007). In contrast, spontaneous references to a target person's abstract traits or dispositions are comparatively rare. Perceivers are, therefore, less naive dispositionists than naive *mentalists* (Malle, 2008). Also in opposition to the view of the perceiver as a lay dispositionist (Ross & Nisbett, 1991), spontaneous explanations commonly refer to situational factors that shaped the target's behavior. For example, after watching a videotape of an obedient participant in the Milgram (1963) shock experiment, perceivers often mentioned the experimenter's domineering orders when explaining the participant's actions (Reeder et al., 2008). Rather than thinking in terms of abstract categories involving dispositional versus situational causes, perceivers are more concerned with the specifics of others' mental lives and the situations they face.

Finally, MIM implies a new role for situational factors in social perception. In most theories of dispositional inference, perceivers are thought to merely "subtract" the impact of situational forces from a trait inference. For example, when watching a person squirm anxiously while being interviewed about embarrassing topics, perceivers are thought to adjust their inference of trait anxiety downward to reflect the impact of the embarrassing questions (Gilbert et al., 1988). In essence, the perceiver attempts to control for the effect of the situation, as if it were a nuisance factor. In the past, this single inference model has been used to explain perceptions formed of both intentional and unintentional action. MIM offers a different model when the target person's behavior is intentional. Accordingly, situations can *inform* trait inference by helping to identify a target person's motives (Reeder et al., 2008). For example, when judging one of Milgram's (1963) obedient teachers, perceivers who stressed the situational importance of the experimenter taking responsibility for the shocks tended to attribute to an obedience motive. In contrast, perceivers who stressed the importance of the learner's pleas for help tended to see the teacher as motivated to help the learner. Inferences about the motives of obedience and helpfulness then

laid the groundwork for inferences about the teacher's trait-level morality. Thus, rather than overlooking situational cues or attempting to control for their influence, perceivers are alert to such cues to better understand a target person's mental state.

## Note

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## References

- Alicke, M. D. (2000). Culpable control and the psychology of blame. *Psychological Bulletin*, *126*, 556-574.
- Ames, D. R. (2004). Inside the mind reader's tool kit: Projection and stereotyping in mental state inference. *Journal of Personality and Social Psychology*, *87*, 340-353.
- Ames, D. R., Flynn, F. J., & Weber, E. U. (2004). It's the thought that counts: On perceiving how helpers decide to lend a hand. *Personality and Social Psychology Bulletin*, *30*, 461-474.
- Anscombe, G. E. (1957). *Intention*. Oxford, UK: Blackwell.
- Aristotle. (1941). *Nicomachean Ethics*. In R. McKeon (Ed.), *The basic works of Aristotle* (pp. 964-984). New York: Random House.
- Asch, S. E. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology*, *41*, 258-290.
- Asch, S. E., & Zukier, H. (1984). Thinking about persons. *Journal of Personality and Social Psychology*, *46*, 1230-1240.
- Bierbrauer, G. (1979). Why did he do it? Attribution of obedience and the phenomenon of dispositional bias. *European Journal of Social Psychology*, *9*, 67-84.
- Bloom, P. (1997). Intentionality and word learning. *Trends in Cognitive Science*, *1*, 9-12.
- Burke, K. (1954). *Permanence and change: An anatomy of purpose* (Rev. ed.). Los Altos, CA: Hermes. (Original work published 1935)
- Buss, A. R. (1978). Causes and reasons in attribution theory: A conceptual critique. *Journal of Personality and Social Psychology*, *36*, 1311-1321.
- Cosmides, L. (1989). The logic of social exchange: Has natural selection shaped how humans reason? Studies with the Wason selection task. *Cognition*, *31*, 187-276.
- D'Andrade, R. (1987). A folk model of the mind. In D. Holand & N. Quinn (Eds.), *Cultural models in language and thought* (pp. 112-148). New York: Cambridge University Press.
- Dennett, D. C. (1996). *Kinds of minds*. New York: Basic Books.
- Dodge, K. A., & Coie, J. D. (1987). Social-Information-Processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology*, *53*, 1146-1158.
- Epley, N., Morewedge, C. K., & Keysar, B. (2004). Perspective taking in children and adults: Equivalent egocentrism but differential correction. *Journal of Experimental Social Psychology*, *40*, 760-768.
- Fein, S. (1996). Effects of suspicion on attributional thinking and the correspondence bias. *Journal of Personality and Social Psychology*, *70*, 1164-1184.
- Fein, S., Hilton, J. L., & Miller, D. T. (1990). Suspicion of ulterior motivation and the correspondence bias. *Journal of Personality and Social Psychology*, *58*, 753-764.

- Fiedler, K., & Schenck, W. (2001). Spontaneous inferences from pictorially presented behaviors. *Personality and Social Psychology Bulletin*, *27*, 1533–1546.
- Fincham, F. D., Beach, S., & Nelson, G. (1987). Attribution processes in distressed and nondistressed couples: 3. Causal and responsibility attributions for spouse behavior. *Cognitive Therapy and Research*, *11*, 71–86.
- Fincham, F. D., & Jaspers, J. M. (1980). Attribution of responsibility: From man the scientist to man the lawyer. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, Vol. 13 (pp. 81–138). New York: Academic Press.
- Fiske, S. T., & Taylor, S. E. (2008). *Social cognition, from brains to culture*. New York: McGraw-Hill.
- Fleming, J. H. (1994). Multiple-audience problems, tactical communication, and social interaction: A relational–regulation perspective. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 26 (pp. 215–292). New York: Academic Press.
- Fleming, J. H., & Darley, J. M. (1989). Perceived choice and constraint: The effects of perceived contextual and behavioral cues on attitude attribution. *Journal of Personality and Social Psychology*, *56*, 27–40.
- Fletcher, G. J. O., Simpson, J. A., Thomas, G., & Giles, L. (1999). Ideals in intimate relationships. *Journal of Personality and Social Psychology*, *76*, 72–89.
- Gawronski, B. (2003a). Implicational schemata and the correspondence bias: On the diagnostic value of situationally constrained behavior. *Journal of Personality and Social Psychology*, *84*, 1154–1171.
- Gawronski, B. (2003b). On difficult questions and evident answers: Dispositional inference from role-constrained behavior. *Personality and Social Psychology Bulletin*, *29*, 1459–1475.
- Gawronski, B. (2004). Theory-based bias correction in dispositional inference: The fundamental attribution error is dead, long live the correspondence bias. *European Review of Social Psychology*, *15*, 183–217.
- Gilbert, D. T. (1998). Ordinary personology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 2, pp. 89–150). Boston: McGraw-Hill.
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin*, *117*, 21–38.
- Gilbert, D. T., Pelham, B. W., & Krull, D. S. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology*, *54*, 733–740.
- Goldman, A. I. (2001). Desire, intention, and the simulation theory. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality: Foundations of social cognition* (pp. 207–224). Cambridge, MA: MIT Press.
- Hamilton, D. L. (1998). Dispositional and attributional inferences in person perception. In J. M. Darley & J. Cooper (Eds.), *Attribution and social interaction: The legacy of Edward E. Jones* (pp. 99–114). Washington, DC: American Psychological Association.
- Hart, H. L. A. (1968). *Punishment and responsibility*. New York: Oxford University Press.
- Haselton, M. G., & Buss, D. M. (2000). Error management theory: A new perspective on biases in cross-sex mind reading. *Journal of Personality and Social Psychology*, *78*, 81–91.
- Hassin, R. R., Aarts, H., & Ferguson, M. J. (2005). Automatic goal inferences. *Journal of Experimental Social Psychology*, *41*, 129–140.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford.
- Ichheiser, G. (1970). *Appearances and realities*. San Francisco: Jossey-Bass.
- Ickes, W., Simpson, J. A., & Oriña, M. (2005). Empathic accuracy and inaccuracy in close relationships. In B. F. Malle & S. D. Hodges (Eds.), *Other minds: How humans bridge the divide between self and others* (pp. 310–322). New York: Guilford Press.
- Johnson, J. D., Simmons, C., Trawalter, S., Ferguson, T., & Reed, W. (2003). Variation in Black anti-White bias and target distancing cues: Factors that influence perceptions of “ambiguously racist” behavior. *Personality and Social Psychology Bulletin*, *29*, 609–622.
- Johnson, J. T., Jemmott, J. B., III, & Pettigrew, T. F. (1984). Causal attribution and dispositional inference: Evidence of inconsistent judgments. *Journal of Experimental Social Psychology*, *20*, 567–585.
- Jones, E. E. (1964). *Ingratiation*. New York: Appleton-Century-Crofts.
- Jones, E. E. (1979). The rocky road from acts to dispositions. *American Psychologist*, *34*, 107–117.
- Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 219–266). New York: Academic Press.
- Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology*, *3*, 1–24.
- Kalish, C. (1998). Reasons and causes: Children’s understanding of conformity to social rules and physical laws. *Child Development*, *69*, 706–720.
- Kammrath, L. K., Mendoza-Denton, R., & Mischel, W. (2005). Incorporating *if ... then ...* personality signatures in person perception: Beyond the person-situation dichotomy. *Journal of Personality and Social Psychology*, *88*, 605–618.
- Kant, I. (1959). *Foundations of the metaphysics of morals* (L. W. Beck, Trans.). New York: Macmillan. (Original work published in 1785)
- Kassin, S., Fein, S., & Markus, H. R. (2008). *Social psychology* (7th ed.). Boston: Houghton Mifflin.
- Kelley, H. H. (1973). The process of causal attribution. *American Psychologist*, *28*, 107–128.
- Kennedy, K. A., & Pronin, E. (2008). When disagreement gets ugly: Perceptions of bias and the escalation of conflict. *Personality and Social Psychology Bulletin*, *34*, 833–848.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 233–265). Boston: McGraw-Hill.
- Keysar, B., Barr, D. J., & Horton, W. S. (1998). The egocentric basis of language use: Insights from a processing approach. *Current Directions in Psychological Science*, *7*, 46–50.
- Kim, P. H., Dirks, K. T., Cooper, C. D., & Ferrin, D. L. (2006). When more blame is better than less: The implications of internal vs. external attributions of trust after a competence- vs. integrity-based trust violation. *Organizational Behavior and Human Decision Processes*, *99*, 49–65.
- Kozak, M. N., Marsh, A. A., & Wegner, D. M. (2006). What do you think you’re doing? Action identification and mind attribution. *Journal of Personality and Social Psychology*, *90*, 543–555.
- Kruglanski, A. W. (1975). The endogenous–exogenous partition in attribution theory. *Psychological Review*, *82*, 387–406.
- Kruglanski, A. W., & Orehek, E. (2007). Partitioning the domain of social inference: Dual mode and systems models and their alternatives. *Annual Review of Psychology*, *58*, 291–316.
- Krull, D. S. (1993). Does the grist change the mill?: The effect of perceiver’s goal on the process of social inference. *Personality and Social Psychology Bulletin*, *19*, 340–348.
- Krull, D. S., Seger, C. R., & Silvera, D. H. (2008). Smile when you say that: Effects of willingness on dispositional inferences. *Journal of Experimental Social Psychology*, *44*, 735–742.

- Lillard, A. (1998). Ethnopsychologies: Cultural variations in theories of mind. *Psychological Bulletin*, *123*, 3–32.
- Malle, B. F. (1999). How people explain behavior: A new theoretical framework. *Personality and Social Psychology Review*, *3*, 23–48.
- Malle, B. F. (2004). *How the mind explains behavior: Folk explanations, meaning, and social interaction*. Cambridge, MA: MIT Press.
- Malle, B. F. (2008). Fritz Heider's legacy: Celebrated insights, many of them misunderstood. *Social Psychology*, *39*, 163–173.
- Malle, B. F., & Hodges, S. D. (2005). *Other minds: How humans bridge the divide between self and others*. New York: Guilford.
- Malle, B. F., Knobe, J. M., & Nelson, S. E. (2007). Actor–observer asymmetries in explanations of behavior: New answers to an old question. *Journal of Personality and Social Psychology*, *93*, 491–514.
- Maselli, M. D., & Altrocchi, J. (1969). Attribution of intent. *Psychological Bulletin*, *71*, 445–454.
- McClure, J. (1998). Discounting causes of behavior: Are two reasons better than one? *Journal of Personality and Social Psychology*, *74*, 7–20.
- McClure, J. (2002). Goal-based explanations of actions and outcomes. *European Review of Social Psychology*, *12*, 201–235.
- McGraw, K. M. (1985). Subjective probabilities and moral judgments. *Journal of Experimental Social Psychology*, *21*, 501–518.
- McGraw, K. M. (1987). Outcome valence and base rates: The effects on moral judgments. *Social Cognition*, *5*, 58–75.
- Mele, A. R. (2001). Acting intentionally: Probing folk notions. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality: Foundations of social cognition* (pp. 27–43). Cambridge, MA: MIT Press.
- Meltzoff, A. N., & Brooks, R. (2001). “Like me” as a building block for understanding other minds: Bodily acts, attention, and intention. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality: Foundations of social cognition* (pp. 171–191). Cambridge, MA: MIT Press.
- Mendoza-Denton, R., Park, S. H., & O'Connor, A. (2008). Gender stereotypes as situation-behavior profiles. *Journal of Experimental Social Psychology*, *44*, 971–982.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, *67*, 371–378.
- Milgram, S. (1974). *Obedience to authority: An experimental view*. New York: Harper & Row.
- Miller, A. G. (1984). *The Obedience experiments: A case study of controversy in social science*. New York: Praeger Scientific.
- Miller, D. T. (1999). The norm of self-interest. *American Psychologist*, *54*, 1053–1060.
- Mills, C. W. (1940). Situated actions and vocabularies of motive. *American Sociological Review*, *5*, 904–913.
- Morris, M. W., & Larrick, R. P. (1995). When one cause casts doubt on another: A normative analysis of discounting in causal attribution. *Psychological Review*, *102*, 331–355.
- Morris, M. W., Menon, T., & Ames, D. R. (2001). Culturally conferred conceptions of agency: A key to social perception of persons, groups, and other actors. *Personality and Social Psychology Review*, *5*, 169–182.
- Nickerson, R. S. (1999). How we know—and sometimes misjudge—what others know: Imputing one's own knowledge to others. *Psychological Bulletin*, *125*, 737–759.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, *108*, 291–310.
- Peeters, G., & Czapinski, J. (1990). Positive–Negative asymmetry in evaluations: The distinction between affective and informational negativity effects. *European Review of Social Psychology*, *1*, 33–60.
- Pennington, N., & Hastie, R. (1992). Explaining the evidence: Tests of a story model of juror decision making. *Journal of Personality and Social Psychology*, *62*, 189–206.
- Piaget, J. (1932). *The moral judgment of the child*. New York: Free Press.
- Pizarro, D., Uhlmann, E., & Salovey, P. (2003). Asymmetry in judgments of moral blame and praise: The role of perceived metadesires. *Psychological Science*, *14*, 267–272.
- Povinelli, D. J. (2001). On the possibilities of detecting intentions prior to understanding them. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality: Foundations of social cognition* (pp. 225–248). Cambridge, MA: MIT Press.
- Premack, D., & Woodruff, G. (1979). Does the chimpanzee have a theory of mind. *Behavioral and Brain Sciences*, *1*, 515–526.
- Pronin, E. (2007). Perception and misperception of bias in human judgment. *Trends in Cognitive Sciences*, *11*, 37–43.
- Pruitt, D. G. (1968). Reciprocity and credit building in a laboratory dyad. *Journal of Personality and Social Psychology*, *8*, 143–147.
- Read, S. J., & Miller, L. C. (1993). Rapist or “regular guy”: Explanatory coherence in the construction of mental models about others. *Personality and Social Psychology Bulletin*, *19*, 526–541.
- Read, S. J., & Miller, L. C. (2005). Explanatory coherence and goal-based knowledge structures in making dispositional inferences. In B. F. Malle & S. D. Hodges (Eds.), *Other minds: How humans bridge the divide between self and others* (pp. 124–139). New York: Guilford.
- Reeder, G. D. (1993). Trait-behavior relations in dispositional inference. *Personality and Social Psychology Bulletin*, *19*, 586–593.
- Reeder, G. D. (2008). Perceptions of goals and motives in romantic relationships. In S. Sprecher, A. Wenzel, & J. Harvey (Eds.), *Handbook of relationship initiation* (pp. 499–514). New York: Psychology Press.
- Reeder, G. D., & Brewer, M. B. (1979). A schematic model of dispositional attribution in interpersonal perception. *Psychological Review*, *86*, 61–79.
- Reeder, G. D., Fletcher, G. J. O., & Furman, K. (1989). The role of observers' expectations in attitude attribution. *Journal of Experimental Social Psychology*, *25*, 168–188.
- Reeder, G. D., Hesson-McInnis, M., Krohse, J. O., & Scialabba, E. A. (2001). Inferences about effort and ability. *Personality and Social Psychology Bulletin*, *27*, 1225–1235.
- Reeder, G. D., Kumar, S., Hesson-McInnis, M. S., & Trafimow, D. (2002). Inferences about the morality of an aggressor: The role of perceived motive. *Journal of Personality and Social Psychology*, *83*, 789–803.
- Reeder, G. D., Monroe, A. E., & Pryor, J. B. (2008). Impressions of Milgram's obedient teachers. Situational cues inform inferences about motives and traits. *Journal of Personality and Social Psychology*, *95*, 1–17.
- Reeder, G. D., Pryor, J. B., Wohl, M. J. A., & Griswell, M. J. (2005). On attributing negative motives to others who disagree with our opinions. *Personality and Social Psychology Bulletin*, *31*, 1498–1510.
- Reeder, G. D., & Ronk, M. J. (2008). [The mediating role of perceived motives in attitude attribution]. Unpublished raw data.
- Reeder, G. D., & Spores, J. M. (1983). The attribution of morality. *Journal of Personality and Social Psychology*, *44*, 736–745.
- Reeder, G. D., & Trafimow, D. (2005). Attributing motives to other people. In B. F. Malle & S. D. Hodges (Eds.), *Other minds: How humans bridge the divide between self and others* (pp. 106–123). New York: Guilford.
- Reeder, G. D., Vonk, R., Ronk, M. J., Ham, J., & Lawrence, M. (2004). Dispositional attribution: Multiple inferences about motive-related traits. *Journal of Personality and Social Psychology*, *86*, 530–544.
- Roese, N. J., & Morris, M. (1999). Impression valence constrains social explanations: The case of discounting versus conjunction

- effects. *Journal of Personality and Social Psychology*, 77, 437–448.
- Ross, L. (1988). Situationist perspectives on the obedience experiments. *Contemporary Psychology*, 33, 101–104.
- Ross, L., Amabile, T. M., & Steinmetz, J. L. (1977). Social roles, social control, and biases in social-perception processes. *Journal of Personality and Social Psychology*, 35, 485–494.
- Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology*. New York: McGraw-Hill.
- Sabini, J., Siepmann, M., & Stein, J. (2001). The really fundamental attribution error in social psychological research. *Psychological Inquiry*, 12, 1–15.
- Safer, M. A. (1980). Attributing evil to the subject, not the situation: Student reaction to Milgram's film on obedience. *Personality and Social Psychology*, 6, 205–209.
- Sagarin, B. J., Cialdini, R. B., Rice, W. E., & Serna, S. B. (2002). Dispelling the illusion of invulnerability: The motivations and mechanisms of resistance to persuasion. *Journal of Personality and Social Psychology*, 83, 526–541.
- Schank, R. C., & Abelson, R. (1977). *Scripts, plans, goals and understanding: An inquiry into human knowledge structures*. Hillsdale, NJ: Erlbaum.
- Schwarz, N., & Oyserman, D. (2001). Asking questions about behavior: Cognition, communication and questionnaire construction. *American Journal of Evaluation*, 22, 127–160.
- Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge, MA: Cambridge University Press.
- Shaver, K. G. (1975). *An introduction to attribution processes*. Cambridge, MA: Winthrop.
- Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin*, 105, 131–142.
- Smith, E. R., & Miller, F. D. (1983). Mediation among attributional inferences and comprehension processes: Initial findings and a general method. *Journal of Personality and Social Psychology*, 44, 492–505.
- Snyder, M. L., & Frankel, A. (1976). Observer bias: A stringent test of behavior engulfing the field. *Journal of Personality and Social Psychology*, 34, 857–864.
- Thagard, P. (1996). *Mind: Introduction to cognitive science*. Cambridge, MA: MIT Press.
- Thomas, K. W., & Pondy, L. R. (1977). Toward an "intent" model of conflict management among principal parties. *Human Relations*, 30, 1089–1102.
- Trafimow, D. (1998). Situation-specific effects in person memory. *Personality and Social Psychology Bulletin*, 24, 314–321.
- Trafimow, D., & Trafimow, S. (1999). Mapping perfect and imperfect duties onto hierarchically and partially restrictive trait dimensions. *Personality and Social Psychology Bulletin*, 25, 686–695.
- Trope, Y. (1986). Identification and inferential processes in dispositional attribution. *Psychological Review*, 93, 239–257.
- Trope, Y. (1998). Dispositional bias in person perception: A hypothesis-testing perspective. In J. M. Darley & J. Cooper (Eds.), *Attribution and social interaction: The legacy of Edward E. Jones* (pp. 67–97). Washington, DC: American Psychological Association.
- Trope, Y., & Gaunt, R. (2000). Processing alternative explanations of behavior: Correction or integration. *Journal of Personality and Social Psychology*, 79, 344–354.
- Tyler, T. R. (2003). Trust within organizations. *Personnel Review*, 32, 556–568.
- Uleman, J. S., Newman, L. S., & Moskowitz, G. B. (1996). People as flexible interpreters: Evidence and issues from spontaneous trait inference. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, (Vol. 28, pp. 211–279). San Diego, CA: Academic Press.
- Uleman, J. S., Saribay, S. A., & Gonzales, C. M. (2008). Spontaneous inferences, implicit impressions, and implicit theories. *Annual Review of Psychology*, 59, 329–360.
- Vonk, R. (1998). The slime effect: Suspicion and dislike of likeable behavior toward superiors. *Journal of Personality and Social Psychology*, 74, 849–864.
- Vonk, R., & van Knippenberg, A. (1994). The sovereignty of negative inferences: Suspicion of ulterior motive does not reduce the negativity effect. *Social Cognition*, 12, 169–186.
- Wellman, H. M., Cross, D., & Watson, J. (2001). Meta-analysis of theory-of-mind development. The truth about false belief. *Child Development*, 72, 655–684.
- White, P. A. (1991). Ambiguity in the internal/external distinction in causal attribution. *Journal of Experimental Social Psychology*, 27, 259–270.
- Wojciszke, B., Brycz, H., & Borkeanu, P. (1993). Effects of information content and evaluative extremity on positivity and negativity biases. *Journal of Personality and Social Psychology*, 64, 327–335.
- Woolfolk, R. L., Doris, J. M., & Darley, J. M. (2006). Identification, situational constraint, and social cognition: Studies in the attribution of moral responsibility. *Cognition*, 100, 283–301.
- Wright, J. C., & Mischel, W. (1988). Conditional hedges and the intuitive psychology of traits. *Journal of Personality and Social Psychology*, 55, 454–469.
- Wyer, R. S., Jr., & Gruenfeld, D. H. (1995). Information processing in social contexts: Implications for social memory and judgment. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 27, pp. 49–91). San Diego, CA: Academic Press.
- Zwaan, R. A., & Radvansky, G. A. (1998). Situation models in language comprehension and memory. *Psychological Bulletin*, 123, 163–185.