

Inferences About the Morality of an Aggressor: The Role of Perceived Motive

Glenn D. Reeder, Shamala Kumar, and
Matthew S. Hesson-McInnis
Illinois State University

David Trafimow
New Mexico State University

The research investigated perceivers' inferences about the morality of target persons who engaged in aggressive behavior. Across several experiments, inferences about the morality of an aggressor were based more on the perceived motives of the target than on the presence of facilitating situational forces. For example, when a target's aggression was facilitated by personal rewards for aggression (instrumental aggression), perceivers inferred more negative motives and attributed lower morality to the target than when the target's aggression was facilitated by situational provocation (reactive aggression). The results suggest that perceived motives play an important role in dispositional inference and pose a problem for models that focus primarily on perceived causality, assumptions about base rates (consensus), or diagnosticity.

Although most people disapprove of aggression, judgments about the morality of aggression may be highly context dependent. Imagine a crowded bar room in which Jenkins and Jane are deep in conversation. A loud, inebriated bully makes a disparaging remark about Jane. Jenkins gets up and pushes the bully out of his chair. Now imagine a different scenario. Melvin and his pal, Richey, have been standing behind other patrons at the back of a crowded bar room, straining to catch a glimpse of their favorite band. Richey pulls out a crisp \$100 bill and offers it to Melvin if he can find a spot for him to sit down. Melvin walks toward the front of the bar, pushes an unsuspecting patron out of his chair, and motions for his friend to take the seat. Neither Jenkins nor Melvin is likely to win a good citizenship award. Yet intuition suggests that there is something more sinister about Melvin's actions.

In each of these scenarios, the target person knocked a bar patron out of his seat. Yet the situational forces that appear to have prompted the aggression are quite different. Our theoretical approach examines the kinds of motives that are inferred across such

situations (Malle, 1999; McClure, 2002; Read & Miller, 1993). In particular, we assume that perceivers infer different motives as underlying the same act when it occurs in the presence of different sorts of facilitating situational forces (Reeder, Hesson-McInnis, Krohse, & Scialabba, 2001). In turn, inferences about motive guide inferences about the morality of the aggressor (Kant, 1785/1959). For example, the facilitating situational forces in the first scenario involve provocation or threat—the target person responded to an insult directed at his girlfriend. Perceivers may infer that the target's aggression was an angry response, motivated by revenge or possibly self-defense. Motives of this sort may be perceived as relatively justified, and, consequently, the target may *not* be perceived as particularly immoral. In contrast, the facilitating situational forces in the second scenario involve a \$100 incentive for the aggression. Perceivers may infer that the subsequent aggression was motivated by a selfish desire for money. A motive of this sort may be viewed as unjustified, and the target may be perceived as rather immoral. This analysis assumes that the motives that are inferred as underlying the aggression prompt different inferences about morality. The target's *behavior* (pushing a bar patron) remains the same across the two scenarios.

The research in this article was guided by two related goals. First, we sought to examine the role of perceived motives as they relate to inferences about an aggressor's level of morality. The participants in our studies were exposed to aggressive acts that occurred in response to different situational forces. Inferences about the perpetrators' motives and level of morality were the main dependent variables. Second, we sought to compare the adequacy of three theoretical accounts of these findings. At the level of intuition, it seems obvious that perceivers are concerned with the motives of other people. It may come as a surprise, then,

Glenn D. Reeder, Shamala Kumar, and Matthew S. Hesson-McInnis, Department of Psychology, Illinois State University; David Trafimow, Department of Psychology, New Mexico State University.

Shamala Kumar is now at the Department of Psychology, Purdue University.

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Correspondence concerning this article should be addressed to Glenn D. Reeder, Department of Psychology, Illinois State University, Normal, Illinois 61790. E-mail: gdreeder@ilstu.edu

that the most prominent theories of dispositional inference overlook the importance of motives. As described below, these theories include general models of dispositional inference (Gilbert, Pelham, & Krull, 1988; Krull, 1993; Trope, 1986) and domain-specific models (Reeder & Brewer, 1979). After discussing these theories, we outline a third perspective based on the perception of motive (Malle, 1999; McClure, 2002; Read, 1987; Reeder et al., 2001; Sutton & McClure, 2001).

General Models of Dispositional Inference

Heider (1958) described the naive perceiver as seeking to find the *causes* that underlie human behavior. Accordingly, perceivers consider whether the behavior appears to have been caused by dispositional forces or by situational forces. According to Kelley's (1973) discounting principle, perceivers attempt to subtract out the effect of the situation, with the result that whatever is left can be attributed to the person. For example, Gilbert (1995) provided the example of jurors who faced the difficult decision of deciding the guilt of Patty Hearst. Hearst was kidnapped by a militant political group who then tortured her and indoctrinated her with their ideology. Subsequently, Hearst joined the group and eventually participated with them in a bank robbery (Hearst, 1982). In deciding Hearst's guilt, jurors who viewed her behavior as coerced by the situation should, according to general attribution logic, attribute to her a low level of criminality. The logic of the discounting principle is that dispositional causes and situational causes operate in a hydraulic fashion (McClure, 1998): As the strength of situational causality increases, dispositional causality is assumed to grow weaker. Gilbert (1995, 1998) noted that the majority of dispositional inference models have adopted this logic in one form or another (Gilbert et al., 1988; Heider, 1958; Jones & Davis, 1965; Krull, 1993; Trope, 1986). Moreover, these models describe general tendencies of attributional inference, without regard for the *content* of the dispositional inference (Fiedler, 1982). That is, such models do not posit differences when traits such as attitudes, ability, and morality are inferred (Reeder & Brewer, 1979). Following Gilbert (1998), we refer to such approaches as general models of dispositional inference.

What kinds of predictions do general models of dispositional inference make about the perceived morality of aggressors? The discounting principle suggests that condemnation of an aggressive perpetrator should be minimized if there are strong situational reasons for the aggression. That is, compared with random or senseless violence, violence that appears to have been prompted by provocation or other situational forces should be perceived as caused by the situation rather than by the person. Dispositional inferences about the target's level of morality should be a direct reflection of this causal assumption. That is, the target whose aggression appears to have been under the influence of aggression-facilitating situational forces should not be seen as particularly immoral (Carpenter & Darley, 1978; Harvey & Rule, 1978).

In our studies, we varied the nature of situational forces surrounding aggression within either a reactivity scenario or an instrumentality scenario. The *reactivity scenario* varied situational forces relevant to provocation. Accordingly, situational forces operated to encourage an aggressive response from the target person or to discourage an aggressive response, respectively. For example, while playing a game of soccer, a target person was

either insulted by a player on the opposing team (aggression encouraged) or befriended by a player on the opposing team (aggression discouraged). Later in the game, the target spiked the other player (e.g., drove the spikes of his shoes into the other's leg). When the aggression was encouraged by the situation above, we refer to it as *reactive aggression*. We define such aggression as physically harming a person in response to deliberate provocation from that person. The *instrumentality scenario* also involved spiking another player, but the focus was on the rewards in the situation rather than on provocation. No mention was made of any previous interaction between the target and the other player. Instead, this scenario varied the rewards surrounding aggression such that rewards operated to encourage or to discourage aggression. Accordingly, the other player was described as being either the best player on the opposing team (aggression encouraged) or as being the best player on the target's own team (aggression discouraged). When the aggression was encouraged by the situation above, we refer to it as *instrumental aggression*. We define such aggression as physically harming someone to secure a personal reward of some kind.¹

Our major interest was in perceivers' judgments about the morality of a target person who emitted aggressive behavior. General models predict that dispositional inferences of morality should be discounted to the extent that situational forces facilitated the aggression. That is, if situational forces are perceived as being sufficiently strong in both the reactivity and the instrumentality scenarios, the discounting principle should operate in each scenario. It is important to note that although general models can distinguish between strong and weak situational forces, such models typically do *not* distinguish between situational forces of different types.² Thus, unless additional assumptions are added to these models, it is not clear why such models would make differential predictions about situational forces operating in the reactivity and instrumentality scenarios. Across both scenarios, then, general models predict that the target should be attributed rela-

¹ Aggression researchers have used terms such as *reactive aggression*, *hostile aggression*, and *angry aggression* to refer to aggression that is annoyance based. Although the term *hostile aggression* is most frequently seen in the literature, we have used the term *reactive aggression* in our research because it more directly implies an aggressive response that occurs after provocation. Recent analyses suggest that psychologists who attempt to label aggression as reactive versus instrumental may encounter a variety of difficulties (Bushman & Anderson, 2001). For example, many acts of aggression in real life involve mixed motives, making it impossible to label the act as either reactive aggression or instrumental aggression. Despite these ambiguities, we believe that the terms *reactive aggression* and *instrumental aggression* are useful in the context of studying dispositional inferences. For example, naive perceivers may make reliable distinctions between these types of aggression, at least as we have defined them. Our aim in this article is to study these *perceptions* rather than to investigate the actual motives that underlie aggression.

² Trope (1986; Trope & Liberman, 1993) drew a distinction between intrinsic and extrinsic situational inducements. In his framework, our reactivity scenario might be viewed as involving intrinsic inducements, whereas our instrumentality scenario could be viewed as involving extrinsic inducements. Yet it is not clear from Trope's model that these two types of situational inducements typically produce different levels of discounting (Trope & Liberman, 1993, p. 560).

tively higher morality when situational forces encouraged (as opposed to discouraged) the aggression.

Domain-Specific Models of Dispositional Inference

Domain-specific models suggest that the process of dispositional inference varies depending on the type of trait that is to be inferred (Reeder, 1993; Reeder & Brewer, 1979). Thus, inferences concerned with the attribution of attitudes, ability, and morality need to be considered separately because the rules of inference differ for each type of trait (see also Skowronski & Carlston, 1989; Trope, 1998). To account for these different patterns of inference, Reeder and Brewer (1979) outlined a set of trait-behavior expectations that set limits on the discounting principle. For instance, they proposed that where morality inferences are concerned, perceivers expect moral behavior from persons with both moral and immoral traits, but immoral behavior is expected only from persons with an immoral trait. The logical consequence is that a target person's moral behavior leads to a state of uncertainty about whether the target possesses a moral trait. In contrast, immoral behavior is more informative because only immoral persons are assumed to behave in this way. On the basis of the relatively high diagnosticity of immoral behavior, Reeder and Brewer (1979) implied that dispositional inferences based on immoral behavior are relatively unaffected by situational forces. In other words, discounting should be minimal. As a test of these ideas, Reeder and Spores (1983) asked perceivers to read about a target person who stole from a charity fund for the Orphans of America. Earlier, the target's date had urged the target either to steal from the fund (which encouraged the theft) or to donate to the fund (which discouraged the theft). Regardless of which type of social pressure was involved, the target who committed the theft was rated relatively immoral. Subsequent studies provided further support for this line of reasoning (Devine, Hirt, & Gehrke, 1990; McGraw, 1985; Trafimow, 2001; Vonk & Van Knippenberg, 1994).

The uninvolved perceivers in our studies may tend to see aggression as an example of immoral behavior. If so, aggressive behavior should be perceived as highly diagnostic of the target person's level of morality. Consequently, domain-specific models imply that dispositional inferences based on aggression should be relatively insensitive to contextual factors. Even when aggressive behavior occurs in the presence of facilitating situational pressures, these models imply that little discounting should occur and the target should be attributed a relatively low level of morality. Moreover, like general models of dispositional inference, domain-specific models do not distinguish among situational forces of different types. Thus, the prediction of a low level of discounting should hold regardless of whether situational forces are based on the presence of reward (instrumental aggression) or provocation (reactive aggression).

Perceived Motives

Our preferred perspective on the morality of aggression focuses on the motives of an aggressor. This approach allows for distinctions between different types of situational forces. For example, perceivers may attribute different motives to a target whose aggression appears to have been facilitated by situational provocation (reactive aggression), as opposed to aggression that appears to

have been facilitated by situational rewards (instrumental aggression). Specifically, the motives for reactive aggression may include revenge and self-defense. In contrast, the motives for instrumental aggression appear to revolve around a selfish desire for profit. If perceivers believe that the motives underlying reactive aggression are less negative (or less illegitimate) than those underlying instrumental aggression, their dispositional judgments about the target person may reflect this difference. Before considering this possibility in detail, we offer some introductory remarks about the construct of intention.

The perception of intention occupies a central position within the fields of developmental psychology (Kalish, 1998; Lillard, 1998; Piaget, 1932), language comprehension (Schank & Abelson, 1977; Zwaan & Radvansky, 1998), and the philosophy of action (Goldman, 1970; Kant, 1785/1959). According to Lillard (1998), European Americans view intentions as the immediate precursors of behavior. Malle and his colleagues (Malle, Moses, & Baldwin, 2001) noted that the ascription of intention allows the perceiver to detect structure in behavior. European Americans also believe that intentions are potentially knowable to outside observers. As such, a person's state of mind, or intention, is often central to legal decisions (Hart, 1968). Early statements on attribution also placed intentions on center stage (Heider, 1958; Jones & Davis, 1965; Maselli & Altrocchi, 1969). Jones and Davis (1965) outlined a process whereby the perceiver isolated a target person's intention from a set of possible action alternatives. Jones and Davis (1965) maintained that once the perceiver identified an intention (e.g., Brutus is trying to dominate the conversation), he or she could directly infer the target's traits (e.g., Brutus is a dominating person). Yet the link between inferred intention and inferred disposition has received little empirical attention. In fact, early empirical studies of attribution processes tended to ignore inferences about intentions in favor of studying trait attributions and causal attributions (Jones & Harris, 1967; McArthur, 1972). The fall of intention as an important theoretical construct in social psychology was assured when subsequent theoretical papers failed to give the construct an important role in person perception.

Since the mid-1980s, there have been periodic calls for a closer analysis of perceived intentions and goals in person perception (Malle, 1999; Read, 1987; Read & Miller, 1993; Trzebinski, McGlynn, Gray, & Tubbs, 1985; Vonk, 1998). Recent contributions by Malle (1999; Malle & Knobe, 1997; Malle, Knobe, O'Laughlin, Pearce, & Nelson, 2000) provide a sophisticated analysis of factors influencing the perception of intent, but prior research has neglected inferences of intention within the context of dispositional inference. In other words, what role does the inference of intention play in the use of the discounting principle (Kelley, 1973; McClure, 1998)? The present studies examine this question as it pertains to dispositional inferences of morality for aggressive behavior.

That perceivers frequently take note of a target person's goals or intentions is hardly controversial (Fein, 1996; Heider & Simmel, 1944; Lillard, 1998; Premack & Premack, 1994). Indeed, there is evidence that inferences about whether a behavior was intentional (Smith & Miller, 1983) and about the presence of some types of motives (Trzebinski et al., 1985; Vonk, 1998) occur quickly and spontaneously, without an experimenter having to ask for them. But the term *intention* has a variety of meanings (Malle et al., 2001). One aspect of intention is quantitative: Was the behavior

intended, and to what extent? Malle (1999) suggested that perceivers consider the target's beliefs, desires, skill, and awareness when making this sort of judgment. To the extent that an aggressive act is viewed as intentional, inferences about the aggressor are more negative (Heider, 1958; Mummendey, Linneweber, & Löschper, 1984; Piaget, 1932; Shaver, 1985). The second aspect of intention is more qualitative and directional: What was the target attempting to accomplish? This aspect of intention deals with the *motive* behind the target's behavior. According to Malle (1999), perceivers explain intentional behavior in terms of reasons or motives, whereas perceivers explain unintentional behavior in terms of causes (see also Buss, 1978; Fincham & Jaspers, 1980; White, 1991). For example, a gang-related murder might be explained in terms of a revenge motive, whereas an accidental shooting might be explained in terms of a faulty trigger mechanism as the cause. The present research is concerned with intentional acts of aggression, and, thus, inferences about motives are the focus of the analysis.

How are inferences about motives integrated with inferences about traits? Person perception theorists have long held that perceivers seek unity among the different attributes in the impression (Asch, 1946; Read & Marcus-Newhall, 1993; Read & Miller, 1993; Roese & Morris, 1999). Roese and Morris (1999) suggested that perceivers seek compatibility between their dispositional inferences and other types of information about a target person. It follows, therefore, that perceivers may reconcile a dispositional inference of morality with an inference about motive. We assume that an inferred motive tends to be evaluated either positively (as justified) or negatively (as unjustified). Given that perceivers organize their impressions around valence (Asch, 1946; Roese & Morris, 1999), we further assume that perceivers reconcile their evaluative reaction to the motive with their inference about morality. Thus, if the motive is perceived positively, inferences about the morality of the aggressor are positive as well.³ Below we examine the implications of this analysis as it applies to our definitions of reactive aggression and instrumental aggression.

Reactive aggression occurs in response to provocation of some kind. Potential motives for responding aggressively to the provocation include revenge and self-defense. Motives of this sort may be viewed as relatively positive (or less negative). For example, the maxim "an eye for an eye, a tooth for a tooth" suggests that getting even is a legitimate goal when one has been harmed. It follows, therefore, that perceivers' inferences about morality should be more positive if a target person's aggression appears to have been provoked, as opposed to unprovoked. In contrast, the potential motives underlying instrumental aggression converge on selfish desires for reward. Perceivers may react negatively to such motives. In fact, perceivers may be especially upset at the prospect of someone who benefits from his or her own acts of aggression. Terms such as *ill-gotten gain* and *blood money* are used to describe the rewards that accrue from such acts. These observations suggest that the perception of a selfish, instrumental motive will not alter one's negative judgments about the morality of an aggressor. The present experiments explore this possibility across a variety of situational contexts in which aggression occurred.

Studies 1 and 2 in this article examine inferences about the morality of aggressors whose acts occurred in one of two different scenarios. The situational forces in the reactivity scenario focused on provocation, whereas the situational forces in the instrumental-

ity scenario focused on reward. Within each type of scenario, situational forces either encouraged the expression of aggression or discouraged the expression of aggression. The three models of dispositional inference reviewed above make divergent predictions regarding the level of morality attributed in these studies. General models of dispositional inference predict that, across both types of scenarios, inferences of morality should be relatively higher when situational forces encourage aggression. Domain-specific models, in contrast, predict relatively low levels of discounting across both types of scenarios. That is, across both scenarios, the target should be perceived as relatively immoral, regardless of the situational forces surrounding the target's behavior. In contrast, our analysis of perceived motives leads us to expect an interaction between scenario (reactivity vs. instrumentality) and situation (encouragement vs. discouragement of aggression). Accordingly, within the reactivity scenario, inferences of morality should be relatively higher when situational forces encourage aggression. Within the instrumentality scenario, however, inferences of morality should be relatively unaffected by situational forces. Study 3 takes a closer look at perceptions of instrumental aggression by varying the nature and magnitude of the instrumental reward. Finally, Study 4 examines the role of perceived base rates in judgments about the morality of an aggressor.

Study 1

Method

Overview and participants. Participants received information about a soccer player who deliberately hurt another player (e.g., drove the spikes of his shoes into the other's leg). In the reactivity scenario, the situational forces surrounding the target's behavior dealt with an interpersonal encounter between the target and a player on the other team. The situation either encouraged aggression (the other player intentionally provoked the target) or discouraged aggression (the other player befriended the target). In the instrumentality scenario, situational forces dealt with reward and punishment. Once again, the situation either encouraged aggression (by spiking the other player, the target made it easier for his team to win) or discouraged aggression (by spiking the other player, the target made it more difficult for his team to win). The resulting experiment comprised a 2 (scenario: reactivity vs. instrumentality) \times 2 (situation: encouraged aggression vs. discouraged aggression) between-subjects factorial design.⁴ Participants were 80 male and female undergraduates from a mid-sized Midwestern university who received extra credit toward a psychology course.

Materials and procedure. Participants were informed that the experiment concerned their impressions of an incident that occurred at a soccer

³ In this article we make no assumptions about the temporal order of different types of inferences.

⁴ In the reactivity and instrumentality scenarios of Studies 1, 2, and 4, situational forces were manipulated to appear to either encourage aggression or discourage aggression. To manipulate these situational forces in a manner consistent with our definitions of reactive versus instrumental aggression, we varied the situational forces within each scenario in somewhat different ways. In Study 1, for example, the reactivity scenario involved aggression toward a friendly versus hostile victim who was always on the other team, whereas the instrumentality scenario involved aggression toward a victim who was on the same versus a different team. Despite such differences, we believe the designs manipulated the conceptual variables of interest without introducing systematic confounds.

game. They read a description of the game situation and the manner in which a target person named Jason responded to that situation. Within the reactivity scenario, the focus was on Jason's prior interaction with a player on the opposing team. In one of the situations, the prior interaction encouraged aggression on Jason's part: The other player intentionally bumped Jason and made a rude gesture toward him. In the second situation, the prior interaction discouraged aggression: The other player befriended Jason by joking around with him and offering a helping hand when Jason fell. In both situations, Jason lost his footing later in the game and found himself airborne and about to come down on the opposing player. Jason had to choose between behaving nonaggressively (by turning away in an awkward manner and risking injury to himself) or behaving aggressively (spiking the other player). Regardless of whether the situation encouraged or discouraged aggression, Jason chose to behave aggressively.

Within the instrumentality scenario, the focus of the situation was on either reward or punishment for aggressive behavior. One of the situations encouraged Jason to be aggressive. A player on the other team was playing exceptionally well, and it was clear that Jason's team could not win while this player was active. Later in the game, Jason found himself airborne and faced with the choice of behaving nonaggressively or aggressively toward this exceptional player. If Jason chose to spike the opposing player, the other player might be injured and, perhaps, unable to play. Thus, the situation implied that Jason's aggression would be rewarded. The other situation discouraged aggression. It described an exceptional player on Jason's own team. In this case, it was clear that Jason's team could win only if this teammate stayed in the game. Subsequently, when Jason found himself airborne, he had to choose between behaving nonaggressively or aggressively toward his own teammate. Thus, the situation implied that Jason's aggression would be punished. Regardless of whether the situation encouraged or discouraged aggression, Jason chose to behave aggressively.

Following the description of the situation and behavior, participants rated Jason's selfishness (1 = *very unselfish*; 10 = *very selfish*), morality (1 = *very immoral*; 10 = *very moral*), and motivation to win (1 = *not at all motivated to win*; 10 = *very motivated to win*), in that order. The final two items were manipulation checks that asked participants to rate the strength of situational forces related to provocation (i.e., "Did the other player do anything harmful or inappropriate to Jason?"; 1 = *not at all*; 10 = *very much*) and reward (i.e., "Did Jason stand to gain anything by hurting the other player?"; 1 = *not at all*; 10 = *very much*).

Results

Manipulation checks. The manipulation check for the reactivity scenario focused on situational provocation that was directed at the target. A planned comparison indicated that ratings of provocation were higher in the aggression encouraged condition of that scenario ($M = 8.35$) than in the aggression discouraged condition ($M = 2.55$), $t(75) = 10.59$, $p < .01$. Hereafter, the reactivity/aggression encouraged cell of the design is called the reactive aggression condition. Ratings of provocation in this reactive aggression condition were also significantly higher than ratings in the instrumentality/aggression encouraged condition and the instrumentality/aggression discouraged condition ($M_s = 1.40$ and 1.84 , respectively), $t(75) = 14.13$, $p < .01$. The manipulation check for the instrumentality scenario focused on the availability of situational rewards for aggression. A planned comparison indicated that ratings of rewards were higher in the aggression encouraged condition of that scenario ($M = 7.65$) than in the aggression discouraged condition of the scenario ($M = 4.60$), $t(76) = 3.29$, $p < .01$. Hereafter, the instrumentality/aggression encouraged cell of the design is called the instrumental aggression condition. Ratings of rewards in the instrumental aggression condition were also significantly higher than ratings in the reactive aggression condition and

the reactivity/aggression discouraged condition ($M_s = 5.23$ and 5.40 , respectively), $t(76) = 2.91$, $p < .01$. In sum, situational forces were successfully manipulated in both the reactivity and the instrumentality scenarios.

Perceptions of morality. Our theoretical approach based on perceived motives led us to expect an interaction between scenario and situation. Within the reactivity scenario, we expected that perceptions of morality would be higher when the situation encouraged aggression as opposed to discouraged aggression. In contrast, within the instrumentality scenario, we expected that situational encouragement would have little or no effect on ratings of morality. As displayed in Table 1, the interaction between scenario and situation was significant, $F(1, 75) = 19.45$, $p < .01$. As expected, a Student–Newman–Keuls post hoc test showed that within the reactivity scenario, ratings of morality were significantly higher when the aggression occurred in the presence of situational encouragement, as opposed to discouragement. Within the instrumentality scenario, a post hoc test showed the opposite pattern emerged in that ratings of morality were significantly lower when the situation encouraged aggression. A post hoc test was also used to examine the two cells of the design in which aggression was encouraged, which represent typical forms of reactive and instrumental aggression, respectively. As expected, perceivers gave higher ratings of morality in the reactive aggression condition than in the instrumental aggression condition.

Perceptions of motivation and selfishness. According to our theoretical analysis, ratings of morality for instrumental aggression were low in part because the motives for instrumental aggression are selfish, and selfish motives do not legitimize aggression. It is important, therefore, to examine perceptions of motivation. We expected that a target committing instrumental aggression would be perceived as motivated by a desire to win the game. As such, we also expected that he would be rated as relatively selfish. Supporting these assumptions, Table 1 reveals that measures of both perceived motivation to win and selfishness displayed significant interactions of scenario and situation, $F_s(1, 76) = 32.60$ and 4.59 , respectively, $ps < .05$. Within the instrumentality scenario, when the situation encouraged aggression, the target tended to be perceived as more motivated to win the game and as more selfish,

Table 1
Perception of an Aggressive Target Person as a Function of Scenario and Situation: Study 1

Measure	Reactivity scenario		Instrumentality scenario	
	Aggression encouraged	Aggression discouraged	Aggression encouraged	Aggression discouraged
Morality				
<i>M</i>	6.13	3.75	4.18	5.61
<i>SD</i>	1.23	2.07	2.31	1.88
Motivation to win				
<i>M</i>	8.03	8.45	9.13	5.15
<i>SD</i>	1.58	1.50	1.19	2.39
Selfishness				
<i>M</i>	5.75	7.40	7.23	6.63
<i>SD</i>	1.67	2.39	3.04	2.07

Note. Higher numbers on each item signify greater attribution to that attribute on a scale of 1 to 10. $N = 20$ in each of the four cells in the design.

compared with the case when the situation discouraged aggression. Within the reactivity scenario, however, these tendencies were absent.

Discussion

The results of Study 1 are consistent with the notion that perceived motives are important for understanding inferences about the morality of an aggressor. When the target person's aggressive behavior was encouraged by situational provocation (reactive aggression), the target's motives were viewed as relatively unselfish, and the target was perceived as relatively moral. In contrast, when the target's aggressive behavior was encouraged by an instrumental reward involving personal gain, the target's motives were seen as selfish, and the target was perceived as relatively immoral. Within this instrumental aggression condition, ratings of morality were actually lower than those given in the comparison condition where aggression was discouraged by the situation. This pattern argues against an alternative interpretation based on the strength of the situational manipulation. If a weak manipulation in the instrumentality scenario was the only factor differentiating it from the reactivity scenario, we would expect to see a similar but weaker pattern of results within the instrumentality scenario. The fact that situational forces had opposite effects within the two scenarios appears to contradict the alternative interpretation.

The results of Study 1 also contradict the predictions offered by both general models of dispositional inference and domain-specific models. As described earlier, general models predict that inferences of morality should be discounted for situational forces in both the reactivity and the instrumentality scenarios. Domain-specific models, in contrast, predict little or no discounting in either scenario. Neither type of model offers a theoretical account of the Scenario \times Situation interaction that we observed for inferences of morality.

Study 2

Although the results of Study 1 offer preliminary support for the motives perspective, aggression in the context of a sporting event may represent a special case of aggression. Perhaps instrumental aggression is perceived as relatively more justified in other settings. To extend the generality of the analysis, Study 2 replicates the design of Study 1 and introduces a new context for the aggression that does not involve sports. In addition, the stimulus materials were selected to avoid a potential problem in the reactivity scenario of Study 1. That scenario may have incorporated an instrumental element because the target was described as risking injury to himself if he behaved nonaggressively. The scenarios in Study 2 were designed to create a clearer distinction between reactive and instrumental aggression. Finally, Study 2 also asked participants to record their first impressions in an open-ended format. It is of interest to determine whether participants infer the motives for aggression without being prompted to do so.

Method

Participants. The participants were 80 male and female undergraduates from a mid-sized Midwestern university who received extra credit toward a psychology course.

Materials and procedure. Participants read about a target person named John who was taking part in a psychological experiment. The experimenter informed John that the experiment concerned the effects of reward and punishment. John was told that he would be given a choice as to whether he would reward another research participant or punish the other participant. John was shown two buttons. The reward button signaled that the other participant would receive an extra dollar. The shock button delivered an electric shock to the other participant. In the *reactivity scenario*, John was told that the other participant would make a similar decision about whether he would reward or shock John and that the other participant would be the first to choose. In one situation, the other participant decided to deliver the shock and thus encouraged an aggressive response from John. In the second situation, the other participant decided to reward John and thereby discouraged an aggressive response from John. The *instrumentality scenario* was similar, except that no mention was made of the other participant's choice. Instead, after reminding John that he was free to press either of the buttons, the experimenter either encouraged aggression by offering John a \$5 incentive for delivering the shock or discouraged aggression by offering John a \$5 incentive for pressing the reward button. John pressed the shock button in all conditions of the study.

Immediately following the description of the situation and behavior, participants were given a blank sheet of paper and were asked to write down their current thoughts (i.e., "Regarding the events described, what are you thinking now?"). Following the open-ended measure, participants rated the target person's selfishness and morality on the same scales used in Study 1. Participants then rated the target's motivation to earn money (1 = *not at all motivated*; 10 = *very motivated*) and responded to the same manipulation checks used in Study 1.

Results and Discussion

Manipulation checks. The manipulation check for the reactivity scenario asked whether the other participant provoked the target person by harming him. A planned comparison indicated that ratings of provocation were higher in the reactive aggression condition ($M = 6.90$) than in the reactivity/aggression discouraged condition ($M = 2.10$), $t(75) = 7.07$, $p < .01$. Ratings of provocation in the reactive aggression condition were also significantly higher than ratings in the instrumentality/aggression encouraged condition and the instrumentality/aggression discouraged condition ($M_s = 1.45$ and 2.21 , respectively), $t(75) = 8.59$, $p < .01$. The manipulation check for the instrumentality scenario focused on the perceived rewards in the situation. A planned comparison indicated that ratings of rewards for aggression were higher in the instrumental aggression condition ($M = 8.25$) than in the instrumentality/aggression discouraged condition ($M = 3.63$), $t(76) = 5.73$, $p < .01$. Ratings of rewards in the instrumental aggression condition were also significantly higher than ratings in the reactivity/aggression encouraged condition and the reactivity/aggression discouraged condition ($M_s = 3.05$ and 2.75 , respectively), $t(76) = 7.66$, $p < .01$. Thus, situational forces were successfully manipulated across both scenarios.

Perceptions of morality. The measure of perceived morality displayed the predicted interaction between scenario and situation, $F(1, 76) = 6.44$, $p = .01$. Replicating the pattern observed in Study 1, Table 2 indicates that the target in the reactivity scenario received higher ratings of morality when his aggression was encouraged by the situation (the other participant shocked him), as opposed to discouraged by the situation (the other participant rewarded him), as indicated by a significant Student-Newman-Keuls post hoc test. Within the instrumentality scenario, however, ratings did not differ significantly across the two situations. Of

Table 2
Perception of an Aggressive Target Person as a Function of Scenario and Situation: Study 2

Measure	Reactivity scenario		Instrumentality scenario	
	Aggression encouraged	Aggression discouraged	Aggression encouraged	Aggression discouraged
Morality				
<i>M</i>	5.18	3.50	3.85	4.38
<i>SD</i>	1.53	2.07	1.78	2.17
Motivation to earn money				
<i>M</i>	5.33	4.93	9.10	2.35
<i>SD</i>	2.45	3.37	1.41	2.16
Selfishness				
<i>M</i>	5.78	7.95	7.10	6.33
<i>SD</i>	1.85	2.48	2.94	3.00

Note. $N = 20$ in each of the four cells of the design.

greater importance and in line with the findings of Study 1, a post hoc test indicated that perceivers gave higher ratings of morality in the reactive aggression condition than in the instrumental aggression condition.

Perceptions of motivation and selfishness. We expected that the target in the instrumental aggression condition would be perceived as strongly motivated by personal gain. The two measures relevant to this expectation (ratings of motivation to earn money and ratings of selfishness, respectively) both displayed significant interactions of scenario and situation, $F_s(1, 76) = 33.56$ and 6.40 , respectively, $ps < .05$. As expected, within the instrumentality scenario, when the situation encouraged aggression, the target tended to be perceived as more motivated to earn money and as more selfish, compared with the case in which the situation discouraged aggression. Within the reactivity scenario, however, these patterns were absent.

Open-ended responses. The open-ended measure was designed to answer three questions. First, did participants infer motives for aggression on their own, without being prompted by the questionnaire? Second, did participants infer different motives for reactive aggression and instrumental aggression? Third, did inferences about motives mediate structured inferences about morality? A primary coder used a dichotomous coding scheme (1 = referred to a motive vs. 0 = did not refer to a motive) to rate each motive. A secondary coder used the same coding scheme, yielding Cohen's $\kappa = .74$, $.83$, and $.83$ for the reliability of ratings pertaining to no motive, revenge, and personal gain, respectively. The analyses reported below are based on data from the primary coder. Hierarchical log-linear models were used to explore the relationships of type of aggression, situation, and whether each motive was mentioned in the open-ended response. Participants noted that there appeared to be no reason or motive for the aggression when the situation discouraged aggression (50% and 35% mentioned this factor in the instrumentality/aggression discouraged condition and the reactivity/aggression discouraged condition, respectively), whereas none of the participants in the two aggression encouraged conditions mentioned this factor. Reflecting this pattern, hierarchical log-linear analysis indicated a significant effect for the situation, $\Delta\chi^2(1, N = 80) = 28.5$, $p < .01$.

Motives related to revenge and personal gain tended to dominate participants' impressions when the situation encouraged aggression. Inferences about revenge were mainly confined to the reactive aggression condition, where 80% of the participants mentioned this motive. Participants mentioned revenge less frequently in the reactivity/aggression discouraged condition (25%), instrumentality/aggression encouraged condition (5%), and instrumentality/aggression discouraged condition (15%), as reflected in the interaction effect of situation and type of aggression, $\Delta\chi^2(1, N = 80) = 7.9$, $p = .01$. In contrast, the motive of personal gain was mentioned most frequently in the instrumental aggression condition, where fully 100% of the participants mentioned it. Participants mentioned personal gain less frequently in the instrumentality/aggression discouraged condition (10%), the reactivity/aggression encouraged condition (0%), and the reactivity/aggression discouraged condition (10%), as reflected in the interaction effect of situation and type of aggression, $\Delta\chi^2(1, N = 80) = 20.1$, $p < .01$. In sum, these analyses suggest that participants tended to infer motives on their own and that very different motives were perceived as underlying reactive and instrumental aggression.⁵

A final set of analyses examined motives as a mediator. Specifically, do inferences about the motives of revenge and personal gain help to explain the finding that inferences of morality were higher in the reactive aggression condition than in the instrumental aggression condition? To examine this possibility, we examined just those two cells of the design, using LISREL (Jöreskog & Sörbom, 1996) to test for mediation in a path analytic framework. The first model we estimated was a partial mediation model in which type of aggression influences ratings of morality directly as well as indirectly by predicting a linear combination of motive variables (motive for personal gain minus motive for revenge), which in turn predicts morality. As expected, this partial mediation model exhibited perfect fit to the data because the model is saturated—that is, $\chi^2(0, N = 40) = 0.0$. The standardized total effect estimate (0.378), t value = 2.55, indicates the clear overall relationship between type of aggression and morality. A second model representing full mediation differs from the first model only by omitting the direct path from type of aggression to morality. Thus, this model constrains the effects of type of aggression on morality to be mediated by the motive variable. This model exhibited excellent fit to the data, $\chi^2(1, N = 40) = 0.6$, $p = .44$, goodness-of-fit index = .99, normed fit index = 1.00, nonnormed fit index = 1.00. The change in chi-square between these two nested models is not significant, $\Delta\chi^2(1, N = 40) = 0.6$, $p = .44$. Thus, the direct effect of type of aggression on morality is not significant. Additionally, the standardized indirect effect of type of aggression on morality is estimated to be 0.42, t value = 3.00, which suggests that this indirect effect is significant. Taken to

⁵ In a follow-up study using the same stimulus materials, participants were given a chance to rate their agreement that the target person was motivated by various factors. In the reactive aggression condition, participants gave relatively high ratings to the motive of self-defense in addition to revenge. In contrast, in the instrumental aggression condition, only the motive of desiring money (personal gain) received high ratings. These data provide additional support for the idea that different motives were perceived across these two conditions.

gether, these findings clearly indicate the mediational role of motives.

Study 3

Our analysis implies that it is not reactive aggression or instrumental aggression, per se, that determines inferences about morality but rather the underlying perceived motives. Our analysis suggests that if instrumental aggression could be made to serve a self-defense motive, inferences about morality would be more positive. For example, imagine that an authority figure threatened the target with punishment unless the target aggressed against a third party. In this example, the target would appear to benefit from committing aggression, but the aggression may not be viewed as selfishly motivated. Perceivers may believe that a person has a right to defend himself or herself (Heider, 1958, p. 246; Reeder & Spores, 1983). Accordingly, relatively high ratings of morality should be given to a target whose instrumental aggression appeared motivated by self-defense. Study 3 investigates this possibility.

An alternative interpretation of the results obtained in the instrumentality scenarios of Studies 1 and 2 concerns the size of the instrumental reward. Instrumental rewards for aggression in these studies were quite small. The rewards dealt with winning a soccer game or obtaining a small monetary reward. Perhaps the pattern of inferred morality that we observed depends on the presence of a small instrumental reward. What if the reward for aggression was greater? On the one hand, perceivers might operate on the principle that any kind of reward is an inappropriate motive for aggression. In other words, whether ill-gotten gain consists of pennies or a fortune may matter little. On the other hand, perceivers may adopt a less principled view in which they weigh the benefits that accrue to the perpetrator of aggression against the costs incurred by the victim of aggression. If so, a large reward for the target might be viewed as at least partial justification for a minor act of aggression (Kelley, 1971). To investigate this issue, Study 3 included a condition in which the target was offered \$100 to deliver a shock to another research participant.

Study 3 examines another alternative interpretation by pitting instrumental aggression against a new comparison, or control, condition. Within the instrumentality scenarios of Studies 1 and 2, perceptions of instrumental aggression were compared with a condition in which aggression was discouraged (e.g., the target would lose money if he delivered a shock). It is possible that ratings of morality were elevated in this comparison condition because the situation appeared to rule out the possibility that selfish motives were involved. A control condition was added in Study 3 in which no information was provided about rewards or punishments surrounding the target's aggression. We expected that ratings of morality in this condition would be low and comparable to those obtained when there were financial rewards for aggression.

Method

Following the procedure of Study 2, 80 male and female college students read about a target person who participated in a psychological experiment. The target was described as being asked to decide whether he would reward another research participant or deliver a shock to that participant. In

each case, the target person decided to deliver the shock. The control condition provided no additional information about the situation. In contrast, the remaining three conditions described additional information that the target received before he made his decision. In the \$5 condition, the experimenter had offered the target person \$5 to deliver the shock. In the \$100 condition, the experimenter had offered the target \$100 to deliver the shock. In the threat condition, the experimenter threatened to give the target person a shock unless he decided to shock the other participant.

Results

Manipulation check. A one-way analysis of variance revealed significant differences across the four conditions in terms of how much the target could gain by hurting the other participant, $F(3, 76) = 10.44, p < .01$. Post hoc tests revealed that, as expected, the target in each of the three instrumental aggression conditions (\$5, \$100, and threat) was perceived as having more to gain from aggression (M s = 6.35, 8.75, and 6.15, respectively) than was the target in the control condition ($M = 3.45$). In addition, the target in the \$100 condition was perceived as having more to gain than was the target in each of the other three conditions.

Perceived morality. Table 3 suggests that perceptions of morality varied across the four conditions of the design, $F(3, 76) = 5.83, p < .01$. A post hoc analysis indicated that ratings were higher in the threat condition than in each of the remaining conditions, which did not differ from one another significantly. Three aspects of this pattern are noteworthy. First, perceivers sharply distinguished between instrumental conditions that served selfish motives (i.e., the \$5 and \$100 conditions) and the threat condition, which appeared to serve a self-defense motive. Second, increasing the magnitude of the instrumental reward from \$5 to \$100 had little impact. Finally, the addition of a no information control condition did not alter our basic conclusion about instrumental rewards for aggression. That is, compared with the control condition, the presence of typical instrumental rewards (\$5 or \$100) did little to justify aggression in the eyes of perceivers.

Discussion

In Studies 1 and 2, we operationalized reactive aggression as a response to provocation, whereas we operationalized instrumental aggression as a response to the presence of a personal reward (winning a game or obtaining money). Perceivers inferred different motives as underlying these two types of aggression, and perceivers' inferences of morality appeared to reflect these different motives. Study 3 emphasizes the point that it is the motives underlying aggression rather than the type of aggression (reactive vs. instrumental) that determines inferences about morality. Thus,

Table 3
Perceptions of an Aggressive Target Person as a Function of Situation: Study 3

Measure	Control	\$5	\$100	Threat
Morality				
<i>M</i>	3.65 _a	3.90 _a	3.95 _a	5.65 _b
<i>SD</i>	1.14	2.27	1.50	1.69

Note. Means that do not share a subscript are significantly different from one another. $N = 20$ in each of the four cells of the design.

when aggressive behavior served the instrumental motive of self-protection, inferences about the target's level of morality were relatively high, compared with instrumental conditions that involved monetary rewards for aggression. Study 3 also helps to rule out two alternative interpretations regarding the effect of instrumental rewards. First, when the reward involved a *gain* for the self, the size of the reward was not particularly important. Perceivers inferred equally low levels of morality for aggression prompted by \$5 and \$100 rewards, respectively. Second, Study 3 compares the effect of instrumental reward conditions with a new control condition that provided no information about rewards or punishments for aggression. Inferences of morality were low in this new control condition and comparable to those in the instrumental conditions involving personal gain. This pattern is consistent with that observed in Studies 1 and 2, indicating that instrumental rewards involving personal gain do little to legitimize aggression.

Study 4

Although instrumental aggression that is motivated by self-defense may appear justified in the eyes of perceivers, typically, the motives for instrumental aggression are more selfish. Study 4 returns to the main issue in this article, which involves a comparison between reactive and instrumental aggression as we defined them in Studies 1 and 2. According to our theoretical analysis, perceivers infer relatively negative motives for such instrumental aggression, and, as a result, they attribute relatively low morality to the aggressor. In Study 4, we consider a second theoretical explanation for this pattern. The alternative derives from a consideration of base rates or perceived consensus for behavior (Borgida & Brekke, 1981; Kelley, 1967). Early general models of dispositional inference implied that low base rate (uncommon) behaviors should lead to strong trait inferences (Jones & Davis, 1965; Kelley, 1967, 1971; McGraw, 1987). These models also implied the converse: High base rate behavior—acts that almost anyone would do—convey little information about the traits of the target person. Perhaps people believe that reactive aggression is relatively common (e.g., “I knew that Jenkins would go ballistic when that guy insulted Jane”) and that instrumental aggression is relatively rare (e.g., “I was astonished when Melvin pocketed Richey’s money and then pushed that poor guy out of his seat”). If instrumental aggression is thought to have a lower base rate than reactive aggression, this difference could explain why inferences about instrumental aggression are more negative. To test this explanation, Study 4 investigates the role of perceived base rates within both a reactivity scenario and an instrumentality scenario similar to those used in Studies 1 and 2. Although the design includes four conditions, the above predictions pertain to just the two cells of the design that represent reactive aggression versus instrumental aggression. In terms of conditional probabilities, these two base rates might be represented as $p(\text{aggression} \mid \text{provocation})$ versus $p(\text{aggression} \mid \text{a reward for aggression})$.

We suspect that, in contrast to general models of dispositional inference, the relationship between perceived base rates and moral judgment is more complex. Inferences about these two dependent variables may be influenced by different factors. Inferences about base rates may be highly influenced by a manipulation of aggression-facilitating situational forces versus aggression-inhibiting situational forces. That is, perceivers probably expect

that relatively more people will commit aggression when situational forces encourage aggression, as opposed to when situational forces discourage aggression. In contrast, inferences about morality appear to be based primarily on the motives of the aggressor. Consider, then, how the two dependent variables are likely to be affected by situational forces in the reactivity scenario. When the situation encourages aggression (e.g., the target is provoked), perceivers should expect a relatively high base rate for aggression. In addition, because reactive aggression tends to be attributed to motives such as revenge and self-defense, inferences about the target's morality should be relatively high. These observations imply a positive correlation between perceived base rates and inferred morality within the reactivity scenario. A different pattern of relationships is implied within the instrumentality scenario. Once again, perceivers should expect a relatively high base rate for aggression when aggression is encouraged (rewarded). But the motives for typical instrumental aggression are perceived as selfish, and inferences of morality should be relatively low. It follows, therefore, that the relationship between perceived base rates and inferred morality should be attenuated within the instrumentality scenario.

Study 4 also includes several methodological additions. First, a measure of perceived intentionality was added. Prior research indicates that the perception of intent is of primary importance in reactions to aggression (Mummendey et al., 1984). The studies in this article were designed to investigate aggressive acts that were clearly intentional but that varied in terms of the motive (or reason) involved (Malle, 1999). We have assumed that intentionality did not vary across the conditions of our studies. Study 4 included a measure that allowed for a direct assessment of this assumption. A second addition pertains to the measurement of perceived aggression and morality, both of which were measured with additional items.

Finally, Study 4 included a relatively unscripted depiction of aggression. In our earlier studies, perceivers read short vignettes about targets involved in situations in which perceivers might reasonably expect aggression to occur. For example, aggression in the context of a soccer game or in response to an experimenter's instructions is hardly unexpected. In Study 4, however, perceivers were exposed to an unexpected and more disturbing form of aggression. Finally, perceivers watched a videotape of the aggressive act rather than reading about it.

Method

Eighty male and female college students watched one of four videotapes that varied the context around which a target person was shown causing another person to fall off a ladder. The aggressive act itself was contained in additional footage that was spliced onto the last portion of the four tapes. In the *reactivity scenario*, the target person (Mark) requested a passerby (Bill) to climb a ladder and nail a poster to the wall. Bill agreed to the request. In the aggression encouraged condition, Bill climbed the ladder and immediately began complaining that he was in a hurry. Bill then proceeded to insult Mark and then stomped on Mark's fingers. In the aggression discouraged condition, in contrast, Bill climbed the ladder and asked in a courteous manner whether he was doing the job correctly. In both conditions, Mark subsequently pushed the ladder forcefully, appearing to cause Bill to fall.

In the *instrumentality scenario*, a person named Bill was shown holding a ladder for a second person named John. The target person (Mark) walked

up to the ladder and asked Bill to sell him some concert tickets. Bill walked off with Mark so as to be out of John's hearing range. Bill agreed to go get the tickets, but only if Mark agreed to do something in return. In the aggression encouraged condition, Bill indicated a dislike for John and asked Mark to push John off the ladder. In the aggression discouraged condition, however, Bill requested that Mark hold the ladder to make sure that John did not fall. In both conditions, Mark was shown agreeing to the request as Bill walked off to retrieve the tickets. On the next section of the tape, Mark pushed the ladder forcefully, appearing to cause John to fall.

Perceived base rates were assessed by an item that asked about population base rates in America (i.e., "What percentage of people in America would behave the way Mark did?"). Perceptions of intentionality were measured with the following item: "How intentional was Mark's behavior?" (1 = *very unintentional*; 10 = *very intentional*). We also extended the generality of the findings regarding perceived morality by adding a new item (i.e., "How likely is it that Mark has high morality?"; 1 = *not at all likely*; 10 = *very likely*). Finally, for exploratory purposes, we added two dependent measures of perceived aggressiveness. These measures assessed perceptions of aggressiveness at both the behavioral level (i.e., "How aggressively do you think Mark behaved in this situation?"; 1 = *non-aggressively*; 10 = *very aggressively*) and at the trait level (i.e., "In general, in his everyday interactions, how aggressive do you think Mark is?"; 1 = *non-aggressive*; 10 = *very aggressive*).

Results and Discussion

Manipulation checks. The manipulation check for the reactivity scenario focused on situational provocation. A planned comparison indicated that ratings of provocation were higher in the reactive aggression condition ($M = 9.05$) than in the reactivity/aggression discouraged condition ($M = 1.35$), $t(76) = 12.18$, $p < .01$. Ratings of provocation in the reactive aggression condition were also significantly higher than ratings in the instrumentality/aggression encouraged condition and the instrumentality/aggression discouraged condition ($M_s = 2.30$ and 2.00 , respectively), $t(76) = 12.60$, $p < .01$. The manipulation check for the instrumentality scenario focused on the availability of situational rewards for aggression. A planned comparison indicated that ratings of rewards were higher in the instrumental aggression condition ($M = 7.45$) than in the instrumentality/aggression discouraged condition ($M = 2.30$), $t(76) = 6.78$, $p < .01$. Ratings of rewards in the instrumental aggression condition were also significantly higher than ratings in the reactivity/aggression encouraged condition and the reactivity/aggression discouraged condition ($M_s = 3.55$ and 1.65 , respectively), $t(76) = 7.37$, $p < .01$. In sum, situational forces were successfully manipulated across both scenarios. Finally, ratings of the intentionality of the behavior were quite high ($M = 8.60$) and did not vary significantly across the design.

Perceptions of morality. To obtain a more reliable measure, we averaged the two indices of perceived morality ($r = .44$, $p < .01$). In general, ratings of morality were quite low ($M = 3.09$ on a 10-point scale), reflecting the serious nature of the aggressive act. The pattern of ratings, however, replicated the findings of our earlier studies. In particular, the interaction between scenario and situation was significant, $F(1, 76) = 8.80$, $p < .01$. Consistent with the means displayed in Table 4, a post hoc test showed that, within the reactivity scenario, perceived morality was marginally higher when the situation encouraged aggression, as opposed to discouraged it ($p = .07$). Within the instrumentality scenario, however, ratings of morality did not differ significantly across the two

Table 4
Perception of an Aggressive Target Person as a Function of Scenario and Situation: Study 4

Measure	Reactivity scenario		Instrumentality scenario	
	Aggression encouraged	Aggression discouraged	Aggression encouraged	Aggression discouraged
Morality				
<i>M</i>	4.00	2.88	2.28	3.23
<i>SD</i>	1.64	1.44	1.06	1.98
Base rate (%)				
<i>M</i>	38.35	6.20	42.50	19.73
<i>SD</i>	22.24	12.79	21.24	12.02
Behavioral aggressiveness				
<i>M</i>	8.35	9.15	8.30	8.00
<i>SD</i>	1.73	0.99	1.30	2.38
Trait aggressiveness				
<i>M</i>	5.25	7.70	5.75	6.10
<i>SD</i>	1.65	1.63	2.24	2.49

Note. $N = 20$ in each of the four cells of the design.

situations. Once again, a post hoc test indicated that perceivers gave significantly higher ratings of morality in the reactive aggression condition than in the instrumental aggression condition.

Perceived base rates. Early models of general attribution (Jones & Davis, 1965; Kelley, 1967) implied that extreme judgments about morality should be made only when a target person's behavior is unexpected or deviates from the norm. Given that lower morality was attributed in the instrumental aggression condition than in the reactive aggression condition, these models imply that instrumental aggression should be perceived as less normative. Table 4 provides no support for this prediction. If anything, perceivers predicted (nonsignificantly) higher base rates in the instrumental aggression condition than in the reactive aggression condition. The base rate data did show one clear pattern: In general, perceivers expected higher rates of aggression when aggressive behavior was encouraged by the situation, as opposed to discouraged by the situation, $F(1, 76) = 32.19$, $p < .01$. This tendency was apparent in both the reactivity and the instrumentality scenarios. No significant effects were obtained for the scenario variable.

We expected a positive relationship between perceived base rates and inferred morality in the reactivity scenario. The pattern of the means in Table 4 is consistent with this expectation. In the reactive aggression condition, both perceived base rates and perceived morality were relatively high (compared with the reactivity condition in which aggression was discouraged). In fact, within the reactivity scenario, the correlation between perceived base rates and inferred morality was significant, $r(40) = .32$, $p < .01$. In contrast, we expected the relationship between these two variables to be attenuated within the instrumentality scenario. Indeed, from Table 4 it can be seen that perceivers inferred low morality in the instrumental aggression condition, despite expecting a high base rate of aggression in this condition. The correlation between these two dependent variables was negligible in the instrumentality scenario, $r(40) = -.02$, *ns*.

Perceived aggressiveness of behavior and trait. Because of ambiguity associated with the term *aggression* (Kunda & Thagard,

1996), we were unsure of what to expect on the dependent measures of perceived aggressiveness. The measure of behavioral aggressiveness revealed no significant effects. This null effect helps to rule out a remaining alternative interpretation of our main findings. Specifically, it might be argued that different patterns of perceived morality for reactive and instrumental aggression occur because different *behaviors* are involved in each type of aggression. Thus, reactive aggression might simply be defined as a less aggressive behavior than instrumental aggression. The fact that ratings of the aggressiveness of the behavior in Study 4 were nearly identical for reactive and instrumental aggression detracts from this interpretation.

As displayed in Table 4, however, a more systematic pattern of data emerged on the dependent measure of trait aggressiveness. The target person was perceived as less aggressive if the situation encouraged aggression, as opposed to discouraged aggression, $F(1, 76) = 9.44, p < .01$. There was also a significant interaction of scenario and situation, $F(1, 76) = 5.31, p < .05$. Post hoc tests indicated that the situation had a significant effect within the reactivity scenario but not within the instrumentality scenario. At a conceptual level, ratings of trait aggressiveness are consistent with ratings obtained on the measure of perceived morality. In the reactivity scenario, ratings of morality and aggressiveness were higher when the situation encouraged aggression, as opposed to discouraged aggression. Within the instrumentality scenario, however, the situation had a weaker effect on ratings of morality and aggressiveness.

General Discussion

Traditional models of dispositional inference portray the perceiver as seeking to identify the underlying causes of behavior. The present research augments that causal analysis by considering the role of perceived motives in dispositional inference. Aggression in response to situational provocation (reactive aggression) was attributed to motives such as revenge and self-defense. Relative to other motives for aggression, these motives are perceived in less negative terms. Consequently, moral evaluations of a person who engaged in reactive aggression were also less negative. In contrast, aggression in response to a situational reward that represented personal gain (instrumental aggression) was perceived as selfishly motivated, and, as a result, evaluations of the perpetrator tended to be more negative. In fact, ratings of morality for selfishly motivated instrumental aggression were comparable to those given for gratuitous aggression (e.g., aggression that had no clear motive). It is interesting that these patterns were not based on assumptions about the relative commonality of these two forms of aggression. Rather, the perceived base rate of instrumental aggression was at least as high as that for reactive aggression (Dodge & Coie, 1987).

Alternative Theoretical Perspectives: General Models, Domain-Specific Models, and Controllability

The findings of these studies challenge general models of dispositional inference in two respects. First, perceivers' use of the discounting principle depended on the type of situational force that was operating. When situational forces were operationalized within a reactivity scenario, the situation had a strong and consis-

tent impact on inferences of morality. For example, a target who aggressed against an attacker was attributed higher morality than one who aggressed against a friend. Yet situational forces in an instrumentality scenario dealing with personal gain had less of an impact on inferences of morality. For example, a target who received \$5 (or even \$100) for delivering an electric shock to another research participant was perceived to be as immoral as a target whose aggression appeared gratuitous. Researchers have been slow to recognize the distinctions that perceivers draw among situational forces (Gilbert, 1998; Jones, 1990). The present research highlights the point that contrasting motives are implied by the same behavior when it occurs in the presence of different kinds of facilitating situational forces (e.g., provocation vs. financial reward). In turn, inferences about motive appear to guide inferences about dispositional characteristics. By considering how inferred motives are linked with the perception of situational forces, researchers can make more precise predictions about the impact of those situational forces on dispositional inferences (Reeder, 2001; Reeder et al., 2001).

The results of the research also relate to another aspect of general models. Early models of dispositional inference implied that trait inferences should be more extreme for low base rate behavior (Jones & Davis, 1965; Kelley, 1967). However, there are reasons to believe that this base rate assumption may have limited applicability to moral judgment. First, philosophers have ridiculed the notion that moral judgment could be grounded in normative comparison (e.g., Is it okay to steal hubcaps if everybody is doing it?). The misuse of norms in this context has been christened the naturalistic fallacy (Moore, 1903/1965; see also Heider, 1958, p. 235). Perceivers may be more likely to fall back on base rates or social norms to the extent that they lack clear guidelines for evaluating the morality of behavior (Festinger, 1954). These guidelines may be clearer for some moral dimensions than others. Trafimow and Trafimow (1999) drew on Kant's (1797/1991) distinction between perfect duties and imperfect duties to make this point. For instance, people are obligated at all times to refrain from lying (or dishonesty), which represents a perfect duty. In contrast, people need not always be charitable (e.g., "I think I'll ignore that panhandler with the bottle of Jack Daniels"), which represents an imperfect duty. Accordingly, the guidelines for judging morality are clearer in the case of perfect duties. Consequently, base rates may have a relatively weak effect on inferences about perfect duties, compared with inferences about imperfect duties. Trafimow, Reeder, and Bilsing (2001) manipulated the base rates for these two types of behaviors by informing their research participants that a target person performed a behavior that either 15% or 85% of others also performed. Although the base rate manipulation had a significant effect on correspondent inferences for both types of behavior, the base rate effect was less pronounced for perfect duties. Combined with the results of Study 4 in this article, the evidence suggests that inferences about certain types of immoral behavior (e.g., dishonest behavior and instrumental aggression) are relatively unaffected by base rate considerations.

The present research suggests a further limitation of the applicability of base rates to moral judgment. Expectations about base rates and inferences about morality tend to be influenced by different variables. Expectations about base rates or the commonality of behavior are strongly affected by the presence of reward in the situation (Miller, 1999). For example, people are thought more

likely to deliver an electric shock to a research participant if the experimenter offers a reward for delivering the shock. But moral evaluations of the aggressor depend less on the rewards in the situation than on the motives of the aggressor. Committing aggression for the sake of obtaining a reward does not justify the aggression. The motives are selfish, and the target is evaluated negatively. At least in the case of instrumental aggression, then, situational forces that influence people's expectations about the frequency of behavior have little impact on moral judgment. It seems ironic that situational rewards can make aggression more understandable in the eyes of perceivers but that such rewards do not justify the behavior.

In addition to challenging aspects of general models of dispositional inference, the results of this research also pose problems for domain-specific approaches (Reeder & Brewer, 1979). Such approaches rest on the construct of diagnosticity. Accordingly, immoral behavior, such as aggression, should be highly diagnostic of the target person's level of morality. Consequently, domain-specific models predict that dispositional inferences based on aggression should be relatively insensitive to contextual factors. This prediction held up within the instrumentality scenarios but not within the reactivity scenarios of Studies 1, 2, and 4. Within the reactivity scenarios, inferences of morality were more positive when the aggressor had earlier been provoked, as opposed to befriended, by the victim of the aggression. This finding indicates that inferences of morality for at least some types of immoral behavior are context dependent. Can this finding be reconciled with earlier research on immoral behavior that found inferences to be unaffected by context? We believe it can. The manipulations used in earlier studies had more in common with the instrumentality scenarios in the current research than with the reactivity scenarios. In a study by Reeder and Spores (1983), for example, perceivers read about a target person who stole from a charity fund. The situation described social pressure from the target's date, who urged the target either to steal from the fund or to donate to it. Regardless of the social pressure, the target who committed the theft was rated relatively immoral. When the social pressure encouraged the theft, perceivers probably inferred that the target was motivated to please his date. As a motive for stealing, conformity to social pressure is probably evaluated negatively. This motive, like the motive of personal gain for an act of aggression, should do little to increase inferences of morality. In short, past studies that found low levels of discounting for immoral behavior appear to have operationalized situational demands in a way that implied selfish motives on the part of the target.

A third perspective on our results focuses on the controllability of the target person's behavior. Weiner (1993) argued convincingly that targets are held more responsible for actions that are controllable. Accordingly, someone who hurt another person by accident or without aggressive intent would be perceived more positively than someone who deliberately inflicted harm. Perhaps reactive aggression is perceived as less controllable than instrumental aggression? For example, a target who blew his top in response to frustration might be perceived as having aggressed under conditions of low control. Certainly there are cases in which people inflict harm unintentionally. Yet there are at least three reasons to doubt controllability as an explanation of the results of our studies. First, with the exception of Study 4, reactive aggression in our studies occurred after a period of time had elapsed

following the provocation. For example, in Study 1, the target was insulted in the provoking incident and responded aggressively later in the game. Following a delay of this sort, it seems unlikely that the target would be perceived as having lost control. Second, the stimuli in these studies were designed specifically to portray intentional acts of aggression. Even in Study 4, in which the aggression followed the provocation directly, perceivers reported no significant differences in intentionality for reactive versus instrumental aggression. If intentionality can serve as a marker for perceived control, this finding suggests that controllability was not a significant factor in our studies. Third, we argue that in other cases, in which controllability is a factor in moral judgment, perceived motives play a role. That is, when perceivers respond negatively to controllable aggression, it may be because they perceive the presence of selfish motives. Causal reasoning and concerns over motive need not be in conflict (Sutton & McClure, 2001).

Inferences About Motives and Dispositions

By shifting the focus of the analysis to motives, the present research raises some additional questions about dispositional inference. Below, we address two related issues. First, how are inferences about motives integrated with inferences about dispositions? Second, do inferences about motive play a role in dispositional inferences of other sorts besides those dealing with morality? Jones and Davis (1965) were the first to address the integration question. They implied that dispositional inferences and intentions (motives) are more or less isomorphic. Thus, if a person intended to dominate a meeting, the person is, by definition, dominant. Counterexamples, however, are easy to generate. Consider the boss who intended to take a submissive approach at a meeting but who dominated the discussion despite that intention. Inferences about the boss's dominance might be augmented in this circumstance. Moreover, the motives for a single behavior, such as an act of aggression, can take a variety of forms—including revenge, self-defense, and personal gain—that are not clearly isomorphic with an inference about morality. How are inferences about such motives integrated with an inference about morality? We have suggested that perceivers seek coherence or compatibility among the different facets of their impression (Asch, 1946; Read & Miller, 1993). Evaluative consistency between the elements in the impression is, perhaps, the overriding basis of compatibility (Roese & Morris, 1999). It follows, therefore, that inferences about the morality of an aggressor are positive to the extent that the motives for aggression are also perceived to be positive. Indeed, the studies in this article suggest that inferences of morality were higher when aggression was motivated by relatively positive motives, such as self-defense or revenge for a past wrong.

We believe that inferences about motive may be important for inferring other types of traits as well. Moreover, the integration of motives and traits may proceed along other lines than just evaluation (Asch & Zukier, 1984; Read & Marcus-Newhall, 1993). Roese and Morris (1999) suggested that if two elements generally are thought to be negatively associated, the presence of one may imply the absence of the other. Consider how inferences about motivation (or effort) are integrated with inferences about ability. Heider (1958) pointed out that, for a given level of performance, effort and ability tend to be negatively related. Indeed, Reeder et

al. (2001) found that perceivers appeared to subtract an inference about effort from an inference about ability. Some participants in Reeder et al.'s study watched a videotape of a target person who performed poorly while kicking a soccer ball. When there were situational demands for low performance (e.g., the target had been offered a bribe), perceivers inferred that the target was motivated to exert low effort. In turn, perceptions of effort were negatively correlated with perceptions of ability. That is, the target was attributed higher ability to the extent that perceivers inferred low effort. It appears, therefore, that the relevance of inferred motives to the process of dispositional inference need not be based on evaluative consistency and need not be restricted to morality dimensions. More generally, the notion that perceivers reconcile motives with dispositions is one that warrants further attention by researchers.

The studies in this article are limited in several ways. In everyday life, people are mainly concerned with aggressive acts that affect them personally: a snide remark from a coworker, a battering by an intimate, or a terrorist bombing. Yet we know little about the process of dispositional inference under these circumstances. We do know that variables related to perspective and individual differences shape the perception of motive. For example, the victims of aggression may identify different motives as underlying the aggression than those identified by the perpetrators of aggression (Baumeister, Stillwell, & Wotman, 1990; Stillwell & Baumeister, 1997). Perpetrators often perceive their own motives in self-serving ways. Future research needs to explore the extent to which the findings in this article generalize across perceivers who occupy victim or perpetrator roles. In addition, there is evidence that certain children, particularly those who are prone to aggression themselves, are predisposed to interpret ambiguous acts as motivated by a harmful intention (Dodge & Coie, 1987). However, it is not yet clear how variables of this sort interact with perceivers' use of the discounting principle when inferences are drawn about the morality of an aggressor.

Another limitation of the research concerns the range of possible motives that may be seen as underlying reactive and instrumental aggression. The present studies suggest that typical instances of reactive and instrumental aggression lead to contrasting inferences about motive. But this pattern of inference may change if different definitions of reactive and instrumental aggression are adopted. In our studies, we operationalized reactive aggression as an aggressive response to deliberate provocation. The provocation was portrayed as moderate to severe in its degree (e.g., bumping and insults), and, in this context, the perceived motives for reactive aggression centered around revenge and self-defense. If reactive aggression were to be operationalized as an overresponse to minor provocation (e.g., responding to a dirty look by emptying both barrels of a shotgun), perceivers may infer more negative motives (e.g., a desire to inflict harm for its own sake) and attribute a lower level of morality. Likewise, instrumental aggression need not always be defined in terms of selfish gain. If more positive motives, such as self-defense or altruism, are perceived as underlying instrumental aggression, more positive inferences should be made about the morality of the aggressor. In Study 3 of this article, for example, aggression that appeared to have the goal of self-defense was perceived in relatively positive terms. Moreover, in times of war or when groups are in conflict, aggression aimed at a

group-sanctioned goal may be seen as noble or even altruistic. Consider the following stanza about Jesse James.

Jesse James was a lad who killed many a man.
He robbed the Glendale train.
He stole from the rich and he gave to the poor.
He'd a hand and a heart and a brain. (Settle, 1966, p. 173)

Jesse James was an outlaw of the old West in the United States who committed a string of robberies in which innocent civilians lost their lives. Yet many residents in the state of Missouri at the time regarded this killer as a hero (Settle, 1966). His supporters believed that Jesse was continuing to defend the interests of the Southern Confederacy following the end of the Civil War in 1865. For example, those who were robbed by Jesse and his gang were thought to be rich Northerners—or carpetbaggers. Thus, Jesse's criminal acts of robbery and murder, which would ordinarily mark one as an enemy of society, were not held against his character. This historical phenomenon highlights the dramatic impact of perceived motives on moral judgment.

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Call for Nominations

The Publications and Communications (P&C) Board has opened nominations for the editorships of *Contemporary Psychology: APA Review of Books*, *Developmental Psychology*, and *Psychological Review* for the years 2005–2010. Robert J. Sternberg, PhD, James L. Dannemiller, PhD, and Walter Mischel, PhD, respectively, are the incumbent editors.

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