# How People Explain Actions Performed by Groups and Individuals

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The authors explore whether people explain intentional actions performed by groups differently from actions performed by individuals. A theoretical framework is offered that distinguishes between 2 modes of explanation: the agent's reasons (beliefs or desires in light of which the agent decided to act) and causal histories of reasons (CHRs; factors that preceded and brought about the agent's reasons). The authors develop the hypothesis that people use more CHR explanations when explaining group actions than when explaining individual actions. Study 1 demonstrates this asymmetry. Studies 2 and 3 explore 2 necessary conditions for the asymmetry: that the group be perceived as an aggregate of individual actors rather than as a jointly acting group and that explainers have general information available about the group. Discussion focuses on people's perception of groups as entities and agents.

Explanations of behavior are a central tool in people's attempt to make sense of the social world. Attribution research has examined how people explain their own and others' behavior and has documented what consequences these explanations have for social perception and interaction. This research on explanations has uncovered a number of important regularities (see Anderson, Krull, & Weiner, 1996; D. T. Gilbert, 1995; Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Malle, 1999), but it has focused primarily on individual actors, thus largely overlooking explanations of behaviors performed by groups or collectives, such as an economic class, ethnic group, social circle, or task force (but see Menon, Morris, Chiu, & Hong, 1999).

Explanations of group behaviors can be amply found in the media: "Traditionally, blacks have shied away from stocks—partly out of mistrust of Wall Street, partly because Wall Street showed little interest in their money" (Truell, 1998, p. 1). "The executives were not forced to resign but left because of the company's financial problems and because they had limited decision-making power" (Stoughton, 1999, p. E03). In everyday conversation, too, group behaviors are readily explained: "The doctors gave me CPR for a total of 15 minutes because I'd get a pulse and then it would fail"; "Then we went back to the dorms because we were going to drink a bottle of wine" (Malle, Knobe, & Nelson, 2001).

As an object of social perception, groups are treated differently from individuals (e.g., Brewer, Weber, & Carini, 1995; Hamilton & Sherman, 1996). It stands to reason, then, that explanations of group behavior will also be distinct from explanations of individual behavior. Intergroup attribution work focused on explanations

for behaviors performed by individual group members rather than by whole groups (Hewstone, 1990; Islam & Hewstone, 1993; Pettigrew, 1979; Susskind, Maurer, Thakkar, Hamilton, & Sherman, 1999). Few researchers have explored patterns of explanations within group perception proper, so in the present article we examine how explanations of behaviors performed by groups might differ from those performed by individuals.

## Groups as Entities, Groups as Agents

Much of previous research on social perception has emphasized that social perceivers see individuals as entities who have stable traits and show behavioral consistency (e.g., Nisbett, 1980). This assumption led to the question as to what extent people likewise see groups as such entities (D. T. Campbell, 1958; Hamilton & Sherman, 1996). Research suggests that groups are typically perceived as less entitive (i.e., less consistent) than are individual persons. Facing a group rather than an individual, perceivers infer less extreme traits from behavior (Susskind et al., 1999), recall less information (McConnell, Sherman, & Hamilton, 1997), and are more ready to adjust their initial impressions upon disconfirmation (Weisz & Jones, 1993).

Contrasting with the focus of this research on people viewing individuals and groups as entities, another approach emphasizes that people view individuals as agents who act intentionally on the basis of their subjective perceptions of the world and their deliberations in light of them (Gopnik & Meltzoff, 1997; Heider, 1958; Malle, 1999). This alternative assumption leads to the question as to what extent people likewise see groups as agents (Abelson, Dasgupta, Park, & Banaji, 1998; Bratman, 1993; Insko, & Schopler, 1987; Velleman, 1997).

The assumption that social perceivers conceptualize groups as entities and the assumption that they conceptualize them as agents are likely compatible (Abelson et al., 1998). Some scholars even treat entitivity as a broad concept that includes aspects of agency as well as aspects of traitedness (D. T. Campbell, 1958; Hamilton, Sherman, & Lickel, 1998). However, recent research on group perception has focused too much on the perception of traits and too little on the perception of agency in groups. To highlight the distinct features of our approach, we therefore put the entitive and

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the agentive perspectives into counterposition. The central difference between the two perspectives runs parallel to the difference between the two dominant paradigms of social cognition in contemporary psychology: the (entitive) paradigm of attribution research in social psychology and the (agentive) paradigm of theory of mind research in developmental psychology.

Within the entitive paradigm, social psychologists since Jones and Davis (1965) have assumed that people divide the causes of all behavior into dispositions (enduring traits) and situations (see D. T. Gilbert, 1995; Shaver, 1975). According to this view, people conceptualize others as coherent entities (Hamilton & Sherman, 1996) and are quick to ascribe traits to them (Ross, Amabile, & Steinmetz, 1977). Traits are taken to be people's "way of packaging the behavior of others" (Hastorf, Schneider, & Polefka, 1970, p. 59) and as the "lay view of behavior" (Nisbett, 1980, p. 109). In short, social psychology has portrayed the social perceiver as an entity theorist (Dweck, Chiu, & Hong, 1995).

Recent work on group perception primarily aligns with this paradigm by describing people's impressions and attributions of group behavior in terms of traits (e.g., Susskind et al., 1999; Yzerbyt, Rogier, & Fiske, 1998). From this perspective, all explanations of group behavior (just as explanations of individual behavior) are expected to be either dispositional or situational, and any differences between individual and group behavior explanations should lie in the relative frequency of using these two kinds of attributions.

Within the agentive paradigm, by contrast, research has focused on the complex elements of people's theory of mind, the conceptual framework with which people make sense of each others' behavior. This folk theory centers on two intertwined assumptions: First, people view each other as having representational mental states such as beliefs, desires, and intentions. Second, people view each other as agents capable of intentional action, and intentionality is in turn conceptualized by reference to the agent's beliefs, desires, and intentions (e.g., D'Andrade, 1987; Gopnik & Meltzoff, 1997; Kashima, McIntyre, & Clifford, 1998; Malle, 1997; Malle & Knobe, 1997a; Mele, 1992; Perner, 1991; Wellman, 1990).

According to the agentive paradigm, social perceivers recognize the significance of unintentional behavior and traits (e.g., Rosati, Knowles, Kalish, Gopnik, Ames, & Morris, 2001), but they are particularly concerned with understanding others' intentional actions (Malle & Knobe, 1997b) and they normally explain those actions with the agent's reasons— beliefs and desires that motivated the action (Malle, 1999). An important question then becomes to what extent people view groups, too, as agents and explain their behavior with reasons.

Thus, whereas previous research focused on the entitive aspect of group perception, we will highlight its agentive aspect and examine people's explanations of individuals' and groups' intentional actions.[1] The entitive model of disposition causes versus situation causes does not specifically account for explanations of intentional action and for the sophisticated distinctions people apply to these explanations (Malle, Knobe, O'Laughlin, Pearce, & Nelson, 2000). The present studies were therefore designed in the context of an alternative theoretical framework that describes, and enables us to assess, people's folk explanations of intentional actions (Malle, 1999, 2001). At the same time, the chosen design allows us to reclassify explanations into traditional attribution

categories and to evaluate the two approaches' relative predictive validity.

## Folk Explanations of Intentional Action

When explaining intentional actions, social perceivers predominantly cite the agent's reasons—the beliefs and desires in light of which the agent decided to act (Audi, 1993; Bartsch & Wellman, 1995; Buss, 1978; Kalish, 1998; Malle, 1999; Mele, 1992; Read, 1987; Searle, 1983). The folk-conceptual model of reason explanations presupposes the necessary involvement of an intention that the agent formed in light of his or her subjective reasons for acting: schematically, *reasons→ intention→ action* (Malle, 1999). To assume, as people do, that agents form an intention in light of their reasons is to assume that agents have at least dim awareness of their reasons for acting (subjectivity assumption) and that the reasons provide rational support for the intended action (rationality assumption). These assumptions of subjectivity and rationality are the defining characteristics of reason explanations and differentiate them from all other explanations.

Suppose someone asks, "Why did Ian work 70 hr last week?" The conversation partner's explanation will likely cite one (or several) of Ian's reasons, such as "He wanted to impress his new boss," "To get overtime money," "He knew that the project was due," or "He was going on vacation the following week." What these four explanations have in common is that they cite contents of mental states that (in the explainer's eyes) the agent considered when deciding to work for 70 hr, and they meet the subjectivity and rationality assumptions. That is, explainers assume that the agent was subjectively aware of his reasons and that they provided rational grounds for forming his intention to act. (For further discussion and empirical evidence of these two folk assumptions, see Malle, 1999; Malle et al., 2000; Mele, 1992; Searle, 1983.)

Reasons are the default mode by which people explain intentional actions and are therefore selected unless there is epistemic or communicative pressure to use an alternative explanation mode. One such alternative is to explain actions not with the agent's reasons but with factors that preceded those reasons and brought them about (see Figure 1). These causal history of reason (CHR) explanations literally describe the causal history, origin, or background of reasons (Malle, 1994, 1999; see also Hirschberg, 1978, Locke & Pennington, 1982). Such a history could lie in childhood, cultural training, traits, or situational cues that triggered, say, a particular desire.

For example, in response to the earlier question "Why did Ian work 70 hr last week?" the conversation partner may reply, "He is a workaholic," "He works in a high-pressure corporate environment," or "He comes from a family of very ambitious people." Here, the explainer does not imply that Ian was considering "I am a workaholic; therefore, I should work 70 hr or "I work in a high-pressure corporate environment; therefore, I should work 70 hr." Being a workaholic, working in a high-pressure corporate

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[1] Interesting questions could be posed about the explanation of unintentional behaviors as well, such as the degree of falsely ascribed intentionality as a function of in-group–out-group status (see Abelson et al., 1998). However, pilot testing showed that it is very difficult to identify a sufficient number of unintentional stimulus behaviors that can be reasonably performed by both groups and individuals.
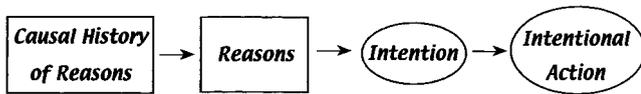
*Figure 1.* Reason explanations and causal history of reason explanations for intentional behavior.

environment, or coming from an ambitious family are (in the explainer's eyes) not the subjectively considered reasons for which Ian acted; rather, the explanations portray facts that generated whatever specific reasons Ian had (e.g., generating a desire to impress his boss or to finish a project by the deadline).

Reason explanations and CHR explanations differ first and foremost in the folk-conceptual assumptions people make about each mode. Whereas reason explanations entail that the cited explanation content was part of the agent's subjective awareness and deliberation (subjectivity assumption) and provided rational grounds for deciding to act (rationality assumption), CHR explanations entail neither of these assumptions (Malle, 1999). Consistent with the postulate that CHR factors do not rationally support the explained action the way reasons do, Malle et al. (2000) found that speakers increase their use of reasons, but not of CHRs, when they try to present themselves as particularly rational to an audience. To test the postulate that CHR explanations do not need to mention factors of which the agent was aware at the time of deciding to act, Malle et al. (2000) presented people with behavior–explanation pairs whose explanation was either a reason or a CHR and asked whether the explanation would still make sense if the agent was not aware of its content. Supporting the predictions, people found CHR explanations without awareness far more acceptable (e.g., "Anne invited Ben for dinner because she is friendly, even though she was not aware that she is friendly") than reasons without awareness (e.g., "Anne invited Ben for dinner because it was his last day before his move, even though she was not aware that it was his last day before his move"). This lack of a subjectivity assumption makes CHR explanations particularly useful when trying to excuse negative actions. By citing a background or history factor that lay outside the agent's subjective awareness, CHR explanations downplay the action's deliberateness and thus help mitigate blame (Nelson & Malle, 2000; see also Wilson, 1997).

The reader unfamiliar with the reason–CHR distinction may be tempted to translate it into familiar person–situation terms. However, the person–situation dichotomy does not capture the reason–CHR distinction: Causal history factors can be located in the person (being a workaholic) or in the situation (a high-pressure corporate environment), and the content of reasons can refer to the person (he was going on vacation) or to the situation (the project was due). Reason explanations and CHR explanations are not distinguished by the factors they superficially refer to but by the folk-conceptual assumptions of subjectivity and rationality and, as a result, by the different functions that the two explanation modes serve. Reasons clarify what the agent's point or purpose was in acting, what he or she had in mind when intending to act. CHR explanations clarify the causal background of those reasons, and they are offered when the reasons themselves are complicated, too obvious to speak of, or unknown. When, for example, newspapers wrote that we will never know why Larry Gene Ashbrook shot at attendants of a Baptist church on September 15, 1999, they meant that we will never know his reasons. Plenty of causal history factors were offered, such as mental illness, dishonorable discharge from the military, loneliness, inability to keep a job; but none of these factors were his reasons for shooting at the churchgoers.

Significantly, people themselves distinguish between reasons and CHR explanations (Malle, 1999; Malle et al., 2000), and Table 1 offers examples of such reliably distinguished explanation sets. Table 1 also shows that the status of being a reason as opposed to a CHR is independent of such linguistic markers as mental state verbs (e.g., *want* or *realize*) and also independent of the mention of either person factors (e.g., "She wasn't interested," "He is driven to achieve") or situation factors ("It was her roommate's birthday," "That's the cultural norm").

## Predicting Differences Between Explanations of Group and Individual Actions

Our main thesis in this article is that the distinction between reasons and CHR explanations marks an important contrast between people's explanations of group and individual actions. This is likely not the only difference between group and individual explanations but one for which predictions can be theoretically derived as follows.

Why-questions about intentional actions typically focus on a specific agent–action unit (e.g., "Why did Soren [agent] wash the dishes [action]?"). Reason explanations are the default response to such questions, cited in about 80% of cases (Malle, 1999; Malle et al., 2000). These reasons are usually agent-specific (they are the presumed mental states that this agent had), time-specific (the agent considered them just when deciding to act), and action-specific (they rationally support this particular action). Under the following conditions, however, people deviate from this default mode and answer why-questions by offering CHR explanations.

The first condition holds when the why-question concerns more than one agent–action unit—that is, when it involves one agent performing multiple actions or multiple agents performing one type of action. In this case, explainers are less likely to provide

Table 1
*Examples of Reason Explanations and CHR Explanations That Were Distinguished Reliably by Social Perceivers*

| Behavior and reason | CHR explanation |
|---|---|
| Anne invited Ben for dinner | |
| It was her roommate's birthday | She is friendly |
| She had not talked to him all week | They are friends |
| Nancy chose not to vote in the last election | |
| None of the candidates appealed to her | Her mom died that week |
| She was not interested in the issues | She does not realize that every vote counts |
| Ian worked 14 hr a day last month | |
| To make more money | He is driven to achieve |
| He wants to get ahead | That is the cultural norm |
| Carey watered her plants | |
| Because they needed it | Because she takes good care of plants |
| Because the leaves were wilting | Because she was at home |

*Note.* The behaviors and classified explanations are selected from Malle (1999) and Malle et al. (2000). CHR = causal history of reason.

reason explanations, because reasons are normally specific to a particular agent performing his particular action. It would be cumbersome to cite each individual reason for the multiple actions or multiple agents involved. Explainers will therefore look for a parsimonious explanation that accounts for the variety of reasons that the sole agent had for her multiple actions or that the multiple agents had for their actions (parsimony principle). For example, asked to explain why she goes shopping many times a week, a mother answered, "Because I have three children." The fact that she has three children produces a variety of reasons for going shopping: on Monday to buy new diapers, on Tuesday to buy milk, on Thursday to get Band-Aids, and so on. The series of actions in question is parsimoniously explained by offering the causal history factor ("I have three children") that underlies the variety of her specific reasons. Similarly, sociologists often use CHR explanations when explaining social behavior because they are interested in broad factors that underlie a variety of individual reasons for acting (e.g., Durkheim, 1897/1951; Steinberg, 1974).

The second condition for increased CHR use holds when explainers do not have specific information about the particular agent performing the particular action. In this case, they use general information that is available about the type of agent or the type of action performed (information principle). General information, such as about the agent's traits, the situational context, and the historical background of the action, is best expressed in CHR explanations. For example, "Why did he mess around?"—"Boys have no morals" or "Why didn't she speak to him?"—The dynamics of their relationship have always been peculiar." In both of these examples, explainers apparently did not know the agent's specific reasons for performing the action in question. But they had general information available about the type of agent or type of action performed, and they used this general information to construct a CHR explanation. Consistent with the information principle, studies found that people reliably use more CHR explanations when explaining other people's behavior (whose reasons they often do not know) than when explaining their own behavior (Malle et al., 2001).

In sum, the proposed theoretical framework assumes that people normally explain intentional actions using the default mode of reasons. However, CHR explanations are better able to account for a set of actions or a set of agents and are better able to express general information about the agent or the action. Within this framework, explanations for group actions should elicit more CHRs than explanations for individual actions. Group actions involve multiple agents who often act in light of a variety of reasons, in which case CHRs would present the more parsimonious explanation. Moreover, group actions readily activate general (often stereotypic) information about groups' social conditions, action tendencies, and dispositional attributes (e.g., Devine, 1989; Reicher, Hopkins, & Condor, 1997; Wittenbrink, Gist, & Hilton, 1997), which are likely to be expressed in CHR explanations. Thus, group actions, as compared with individual actions, increase both the pressure for parsimony and the availability of general information, which leads to the prediction of a greater rate of CHR explanations for groups than for individuals.

## Overview

We first test the general hypothesis that people cite more CHR explanations for an action performed by a group than they cite for the same action performed by an individual. After demonstrating this difference in Study 1, subsequent studies examine the two necessary conditions of an increase in CHR explanations for group actions. First, if parsimony is a necessary requirement for an increase in CHR explanations, then this increase should not occur when the members of the group formed a joint intention and acted jointly. In this case, explainers return to the default mode of reason explanations because the group's action can be parsimoniously explained by the group's joint reasons. Second, if the availability of general information is a necessary condition for an increase in CHR explanations, then this increase should not occur when explainers cannot recruit any general information about the group. In this case, too, explainers return to the default mode of reason explanations.

In the spirit of taking seriously people's own concepts and social practices in explaining behavior, all of our studies examine people's free-response explanations, which are verbalized answers to why-questions (Anderson et al. 1996; Hilton, 1990; Kidd & Amabile, 1981). This method of studying explanations enjoys increasing acceptance among researchers (e.g., Fletcher, 1983; Holtzworth-Munroe & Jacobson, 1988; Islam & Hewstone, 1993; Lewis, 1995; Malle et al., 2000; McGill, 1989), and it has many advantages over the causal rating method: It allows participants to generate explanations during the experiment the way they normally would in real conversations, it does not constrain people's cognitive activity with researchers' theoretical assumptions (e.g., as do requested ratings of dispositional vs. situational factors), and it permits the application of various coding schemes derived from competing theoretical models.

## Study 1

### Method

*Participants.*    Participants were introductory psychology students who received partial credit toward a course requirement. Three participants were excluded from analysis because they did not respond to more than one behavior in either target condition, leaving a sample size of 98.

*Procedure and material.*    All of the studies reported in this article share a common method for eliciting verbal explanations. In each case, groups of 8–12 participants were asked to explain, in writing, a series of behaviors in the context of a fictitious conversation with a friend. The instructions emphasized that participants should formulate explanations based on how they might actually respond within the context of such a friendly conversation; highly technical or examlike answers were discouraged. Each behavior was described and followed by a conversation excerpt in which the friend inquired about a group or individual behavior using a why-question. Three blank lines were offered for the participant's verbal explanation. For example,

> You: Do you know Nina?
>
> F:    I've only met her a few times.
>
> You: Last week I saw her using drugs.
>
> F:    Why was she using drugs?
>
> You: [Blank lines]

Participants were randomly assigned to one of four possible forms. Each of the forms contained six items, three describing actions with an individual target and three describing actions with a group target. For group

targets we selected social categories because they are by far the most frequently studied objects of group perception (rather than families or teams, for example). Forms A and B contained the same six behaviors (see Table 2), but the three behaviors with individual targets in Form A were formulated as group targets in Form B, and the three group targets in Form A were formulated as individual targets in Form B. For example, participants who received Form A were asked, "Why did Nina use drugs?" whereas participants receiving Form B were asked, "Why did high school seniors use drugs?" The same held for Forms C and D, which featured a different set of six stimulus behaviors (see Table 1). We thus aimed to replicate our results using different behaviors in two subsamples: Participants who received Forms A or B make up Sample 1 ($n = 50$), and participants who received Forms C or D make up Sample 2 ($n = 48$).

*Coding.* All responses were coded by two coders using the F.Ex coding scheme for verbal behavior explanations that is discussed in detail elsewhere (Malle, 1998; see also Malle et al., 2000). The Appendix documents the coding rules for the distinction between reasons and CHR explanations. Coding agreement was greater than 90% in all three studies and $\kappa$ ranged from 0.84 to 0.88. Disagreements were discussed, and explanations on which coders could not agree ($< 1\%$) were eliminated from analyses.

In addition to coding for the focal reason–CHR distinction, we also applied two classifications that reflect traditional attribution concepts: (a) a conceptual interpretation of the person–situation distinction, according to which all reasons (mental states of the agent) and CHRs that cite person factors were coded into the person category, whereas CHRs that cite situation factors were coded into the situation category; (b) a linguistic–surface interpretation of the person–situation distinction (probably the more common one; see Malle, 1999; Malle et al., 2000; Ross, 1977), according to which all explanations that directly mention the agent were coded into the person category, whereas those that mention the situation were coded into the situation category. The results of these codings, which failed to differentiate between group and individual explanations, are addressed in a separate section after all three studies.

Table 2
*Stimulus Actions and Targets Used in the Two Samples of Study 1*

| Individual | Group | Action |
|---|---|---|
| | Forms A/B | |
| Nina | High school seniors | Why did (she/they) use drugs? |
| Mom | Females | Why did (she/they) vote? |
| Tonya | Native Americans | Why did (she/they) open casinos? |
| Joe | Men | Why did (he/they) vote Republican? |
| John | Whites | Why did (he/they) cheat on taxes? |
| Shannon | Irish young people | Why did (he/they) leave the country? |
| | Forms C/D | |
| Marnie | Welfare recipients | Why did (she/they) take literacy courses? |
| Ian | Japanese businessmen | Why did (he/they) work so much last year? |
| James Thuton | Inner city youths | Why did (he/they) commit murder? |
| George | Illegal immigrants | Why did (he/they) leave so many jobs? |
| Sara | High school students | Why did (she/they) attempt suicide? |
| Keegan | Young people | Why didn't (she/they) vote? |

*Design and analysis.* Participants were randomly assigned to Samples 1 and 2. Target type (individual vs. group) was a within-subject factor, whereas scores for CHR and reason explanations (correlating at $r(98) = -0.45$, $p < .001$) were treated as multiple measures in a multivariate analysis of variance (MANOVA).[2] Within each target type, the number of CHR explanations and the number of reason explanations were averaged across the behaviors explained (usually three), yielding scores for CHRs per behavior and reasons per behavior.

## Results

Consistent with previous research (Malle, 1999; Malle et al., 2000), reason explanations ($M = 1.04$ explanations per behavior) were more frequent overall than were CHR explanations ($M = 0.62$ explanations per behavior), $F(1, 96) = 16.68$, $p < .001$. Group targets also received slightly more explanations overall ($M = 1.75$) than did individual targets ($M = 1.58$), *ns*.

Whereas individual targets elicited 0.47 CHRs and 1.13 reasons, group targets elicited 0.78 CHRs and 0.99 reasons. Thus, individual and group targets elicited significantly different explanation profiles, multivariate $F(2, 95) = 10.31$, $p < .001$, $\eta^2 = 18\%$.[3] This effect was based more on explainers' differential use of CHRs across the two targets (discriminant function loading $a = 1.10$, univariate $\eta^2 = 18\%$, $p < .001$) than on their differential use of reasons ($a = 0.20$, univariate $\eta^2 = 4\%$, $p < .05$). In terms of percentages, group targets elicited 44% CHRs, whereas individual targets elicited 29% CHRs (see Figure 2).

These patterns did not differ from one sample to the next, $F < 1$. However, Samples 1 and 2 had different explanation profiles overall, multivariate $F(2, 95) = 17.85$, $p < .001$, $\eta^2 = 27\%$, presumably because they contained different stimulus behaviors. CHRs were more prevalent in Sample 2 ($M = 0.82$) than in Sample 1 ($M = 0.43$), whereas reasons occurred with roughly the same frequency (Sample 1: $M = 1.13$; Sample 2: $M = 0.95$).

To examine variations of the group–individual target difference across the 12 stimulus behaviors in the two samples, we computed percentage-CHR scores for group target and individual target within each behavior. Of the 12 behaviors, 9 showed greater CHR percentages for group targets, and on average these were 45% CHRs for group targets and 31% for individual targets, effect size $r = .15$. We wondered whether the size or direction of the group–individual difference was predictable by the desirability of the behavior (as rated by 35 new participants), but there was no such relation ($r = 0.0$), even though the prevalence of CHRs increased overall for less socially desirable actions ($r = -.66$ within individual targets; $r = -.61$ within group targets). The direction (and size) of the group–individual difference was weakly

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[2] Analyses treating reason and CHR explanations as levels of a second within-subject factor produced the same findings across all three studies as the reported multivariate analyses. The multivariate analyses are more appropriate, however, because reasons and causal histories can be given together in a single response for a single why-question (e.g., "Why didn't he vote?"—"He is lazy [CHR] and didn't want to support either of the candidates [reason]"). Explainers do not necessarily make a choice between reasons and CHRs, as might be assumed by treating the two explanation modes as levels of a factor.

[3] When describing multivariate effects in this article, we report a multivariate $\eta^2$, which corresponds to $V/s$ (i.e., Pillai's criterion divided by the number of discriminant functions in the model).
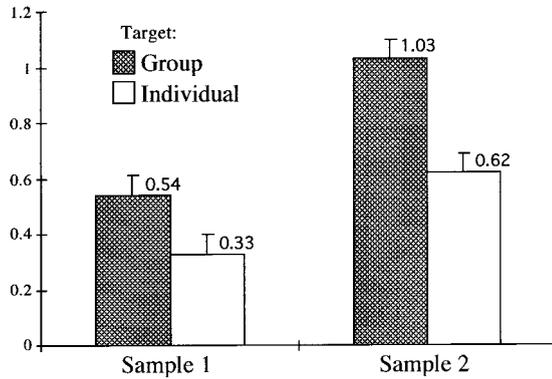
*Figure 2.* Study 1: Causal history of reason explanation rates for individual and group targets. Error bars are .68 confidence intervals.

predicted by the extremity of the behavior (i.e., its absolute social desirability), so that the few exceptions to the target difference occurred with more extreme behaviors ($r = .32$).

### Discussion

Across two samples and 12 behaviors, we found a greater use of CHR explanations for group targets than for individual targets. This difference supports our hypothesis, but we wanted to rule out one concern. The study's procedure minimized participants' personal relations with the individual agents by using fictitious persons described with a first name (e.g., "Shannon left the country"). That way we eliminated the alternative explanation that individual targets elicit fewer CHR and more reason explanations merely because participants like them better or know them better than the group targets. However, we wanted to ensure that our procedure did not create an opposite trend, such that explainers avoided CHRs for fictitious individual targets. This kind of trend would also lead to the predicted target difference, but not on the grounds hypothesized.

### Follow-Up Study on Personally Known Individual Targets

We selected four behaviors identical or similar to the ones used in Study 1 (failing to vote, working extra hours, using drugs, quitting a job) and asked 45 participants to provide explanations for individual targets performing these behaviors. Participants were randomly assigned to one of two conditions. In the personal condition ($N = 22$), participants were asked to recall and list, for each behavior, several people who had recently performed the behavior in question. They then chose the person from the list that they knew best and explained why that person performed the behavior. By contrast, participants in the impersonal condition ($N = 23$) explained why generic individuals (e.g., Person C) performed the behaviors.

The results showed that there was no difference in the use of reasons or causal histories as a function of personal relationship. In the personal condition, people offered more reasons ($M = 0.95$) than causal histories ($M = 0.36$), and in the impersonal condition they also offered more reasons ($M = 1.09$) than causal histories ($M = 0.32$), $F < 1$. More important, even the personal individual target condition showed a lower CHR rate than did the group target condition in Study 1 ($M = 0.78$), $t(118) = 3.23$, $p < .001$. These

results suggest that reason explanations are the default mode for individual targets: Even if no specific information about an individual agent is known, such information is still inferred or imagined. The pattern of results removes any concerns about the fictitious individual targets in Study 1. The low rate of CHRs in that condition (29%) was representative of the rate that people show in general when explaining individual target behaviors (25%), whether personally known or not.

## Study 2

Now we turn to a first necessary condition for people's greater use of CHR explanations when accounting for group actions. According to the parsimony principle, CHR explanations are more frequent in the case of groups because the target of explanation is not a single agent performing a behavior but a set of agents performing the same behavior, and presumably for different reasons. In such a case, CHRs provide a parsimonious explanation for the whole set of individual reasons held by the individual agents that are subsumed under the group label. However, when a group deliberates jointly and acts jointly, the explainer may not have to resort to causal history factors to achieve parsimony but can, instead, explain the entire group's action by their (joint) reasons. In that case, the group is considered a unified agent.

Thus, to identify the first necessary condition of the group–individual difference found in Study 1, we must distinguish between two types of groups: (a) aggregate groups,[4] in which the members of a group all perform the same action but do so independently as an aggregate of individual agents (e.g., "Psychology departments nationwide hired 28 social psychologists"), and (b) jointly acting groups, in which the members of a group act together as a group agent (e.g., "The Oregon psychology department hired a social psychologist").[5] We predict an increase in CHR explanations for aggregate groups but not for jointly acting groups, and for the following reasons.

When each group member acts independently (aggregate groups), a single reason for acting is unlikely to generalize to all individual agents in the group, and listing the entire possible set of individual reasons would be cumbersome (and often impossible). By citing causal history factors that are one step removed from the host of individual reasons, the explainer captures the whole phenomenon (many individual actions) in a single explanation. In this way the explainer adopts the perspective of a social scientist who

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[4] The use of labels to refer to groups with different qualities is a serious concern (cf. Hamilton et al., 1998). Although we entertained many other labels for this second type of group, we have chosen *aggregate group* because it best captures the fact that the members of this group are literally aggregated by the perceiver into a (linguistic) group category, such as "high school seniors" or "Irish peasants." There is no assumption of interaction or planning among members of aggregate groups, but their behavior is still explained as a genuine group behavior.

[5] This distinction between aggregate groups and jointly acting groups maps onto distinctions among group types recently investigated by Lickel, Hamilton, Wieczorkowska, Lewis, Sherman, and Uhles (2000) and Wilder and Simon (1998). What we call *aggregate groups* include social categories and certain loose associations as well as intimacy groups when they do not act together. What we call *jointly acting groups* include task groups and intimacy groups when they act together (dynamic groups).

searches for the variables that have explanatory power across individuals (e.g., Durkheim, 1897/1951; Steinberg, 1974).

In contrast, when a collection of individuals is perceived to behave as a jointly acting group, the target of the explanation is considered to be a group agent that is unified and coordinated in its performance of the action (Abelson et al., 1998; Lickel et al., 2000). Moreover, the jointly acting group ostensibly has its own group-level reasons for acting (M. Gilbert, 1992). Thus, we would expect that people will explain a jointly acting group target in the same manner as a single individual agent—that is, with a preponderance of reason explanations.

The design of the present study, comparing jointly acting and aggregate group targets to individual targets, also allowed us to contrast the parsimony hypothesis with a plurality hypothesis, which would hold that differences between explanations for groups and individuals are driven by the fact that groups consist of more than one person (a plural target). This hypothesis predicts CHR explanations to be higher for the two plural target types (jointly acting groups and aggregate groups) than for the singular target (individual). By contrast, the parsimony hypothesis holds that explanation differences are driven by the unity of agents. It predicts CHR explanations to be higher for the multiple-agent target (aggregate groups) than for the unified-agent targets (both individual persons and jointly acting groups).

## Method

*Participants and procedure.* Participants were 119 introductory psychology students who received partial credit toward fulfilling a course requirement. They were randomly assigned to receive one of three questionnaires corresponding to the three between-subjects target conditions (jointly acting group, aggregate group, individual person). Following the format of Study 1, the conditions differed only in the type of agent who performed the four described actions. For example, in the jointly acting group condition, members of each group performed the action jointly as a group rather than independently (e.g., "The African American Council made a contribution to public broadcasting"). In the other conditions, the same actions were depicted as being performed by individual agents or aggregate group agents, respectively (see Table 3).

Table 3
*Stimulus Sentences for Three Target Types in Study 2*

| Target | Action |
| --- | --- |
| Juveen Harding<br>The department faculty<br>Department chairpersons in the United States | Added new requirements to the curriculum |
| Loren Cutre<br>A group of senators<br>U.S. senators | Blocked a social security bill |
| Eric Lofleg<br>The seniors at Davis High School<br>High school seniors nationwide | Vandalized the high school gym |
| Jeremy Torren<br>The African American Council<br>African Americans nationwide | Contributed money to public broadcasting |

*Note.* The top target of each triplet is the individual, the middle target is the jointly acting group, and the bottom target is the aggregate group.

*Stimulus validation.* To ensure that the jointly acting group targets, but not the aggregate groups, were seen as acting together, we conducted a pretest on the eight stimulus sentences for both group targets. Each of 26 undergraduate students rated 4 stimulus sentences that described four distinct behaviors. In one form, two of the behaviors were described as performed by a jointly acting group, the other two as performed by an aggregate group. In the other form, the group labels were switched. To assess the perception of *jointness* in the jointly acting groups compared with the aggregate groups, we asked participants to rate the behavior descriptions on three items: (a) Did these people act independently or together? (8-point scale from 0 to 7), (b) Did these people have the same or different reasons to act that way? (9-point scale from $-4$/different through 0 to 4/same), and (c) Did the people plan this action together? (8-point scale from 0 to 7). In addition, we asked participants to estimate the size of each group.

The three items designed to assess jointness had an average standardized $\alpha$ reliability of 0.77 and were therefore summed (with "different reasons" reverse scored) to form a three-item Jointness scale that could range from $-4$ to 18. On this scale, actions by one of the four jointly acting groups were consistently rated much higher ($M$s $= 11.3$–$15.8$) than the same actions performed by one of the corresponding aggregate groups ($M$s $= 3.3$–$9.8$), with effect sizes of $\eta^2 = 20\%$–$68\%$ ($p = .02$–$.0001$). The effect size per group, hence the success of our manipulation, was unrelated to the specific linguistic cues that varied between the jointly acting and aggregate group labels (e.g., definite vs. indefinite article, proportion of category vs. entire category).

Jointly acting groups were, unsurprisingly, estimated to be smaller on average than aggregate groups. However, because of the large variability of people's size estimates within each group type (jointly acting vs. aggregate), none of the differences were significant in the present sample. We then performed correlations between estimated group size and the Jointness scale within each group type. For the jointly acting groups, the correlations ranged from $-0.40$ (seniors) to 0.24 (African Americans); for the aggregate groups, they ranged from $-0.24$ (Senators) to $-0.01$ (African Americans). None of these correlations reached significance.

The pretest results suggest that the manipulation of group labels to designate jointly acting groups versus aggregate groups was successful, as jointly acting groups were perceived to plan and act together and have more similar reasons for doing so. Estimated group size is a natural concomitant of jointly acting groups (Hamilton et al., 1998), but variations of group size appeared to be only minimally related to variations in perceived jointness in our stimulus set.

## Results

Participants provided a total of 561 explanations ($M = 1.3$ per behavior). The numbers of CHR explanations across the four stimulus behaviors were averaged to form a single CHR per behavior score, and correspondingly for a reasons per behavior score. As before, reasons were more frequent overall ($M = 0.92$) than were CHRs ($M = 0.38$).

The omnibus analysis showed a strong effect of target condition on the use of CHRs and reasons, multivariate $F(4, 232) = 5.25$, $p < .001$, $\eta^2 = 17\%$. Table 4 displays the means within each condition. We tested two competing hypotheses by way of two planned contrasts. The plurality hypothesis predicts that CHR use is greater for plural targets (jointly acting group and aggregate group conditions) than for singular targets (individual target condition). This hypothesis received no support, as there was no difference between singular and plural targets for either CHR scores ($M$s $= 0.38$) or reason scores (singular: $M = 0.91$; plural: $M = 0.93$).

Table 4

*CHR Explanations and Reason Explanations per Behavior for*
*Individuals, Jointly Acting Groups, and Aggregate*
*Groups in Study 2*

| Target | CHRs | Reasons |
| --- | --- | --- |
| Individuals | 0.38 | 0.91 |
| Jointly acting groups | 0.23 | 1.00 |
| Aggregate groups | 0.52 | 0.86 |

*Note.* CHR = causal history of reason.

The parsimony hypothesis predicts that CHR use is greater for targets that refer to a variety of individual agents (aggregate group condition) than for targets that refer to a unified agent (individual person and jointly acting group conditions). This hypothesis received strong support. Explanations for aggregate groups contained 0.52 CHRs and 0.86 reasons, whereas the other two conditions elicited 0.30 CHRs and 0.95 reasons, multivariate $F(2, 115) = 8.70$, $p < .001$, $\eta^2 = 13\%$. Differences in CHR use contributed more strongly to the discriminant function ($a = 1.10$, univariate $\eta^2 = 12\%$ $p < .001$) than differences in reasons did ($a = 0.21$, univariate $\eta^2 = 2\%$, *ns*). In percentages, explanations for aggregate groups elicited 38% CHRs, whereas the other two conditions elicited 24% CHRs.

In addition, we found unexpectedly that jointly acting groups elicited even fewer CHRs ($M = 0.23$) and more reasons ($M = 1.00$) than did individual targets (CHR: $M = 0.38$; Reason: $M = 0.91$), multivariate $F(2, 115) = 2.71$, $p < .08$, $\eta^2 = 4\%$.

### Follow-Up Analysis 1: Controlling for Social Desirability and Intentionality

We wanted to ensure that the effects were due to differences between target types rather than to concomitant variables, such as the perceived intentionality or social desirability of the actions explained. For example, actions performed by aggregates might be seen as less intentional or less desirable and therefore elicit more CHR explanations. To address this possibility we asked a sample of judges ($N = 40$ undergraduate students) to rate the social desirability and intentionality of each of the 12 stimulus sentences (four behaviors performed by each of the three target types). The ratings were averaged across judges to indicate the social desirability and intentionality scores of each stimulus sentence. Using each instance of an explained behavior as a unit of analysis, we then regressed the rate of CHR explanations per behavior on the behaviors' social desirability and intentionality scores and on two indicator variables that represented, respectively, the parsimony and plurality contrasts defined earlier.

After removing the nonsignificant intentionality variable ($R^2_{change} = -.002$, $F < 1$), the resulting model predicted the number of CHRs from the social desirability of the behavior and from the two contrasts, $R^2 = .17$, $F(3, 472) = 31.66$, $p < .001$. Even when controlling for the effect of social desirability ($b = -.39$, $p < .001$), the parsimony contrast remained significant ($b = .20$, $p < .001$), whereas the plurality contrast failed to reach traditional significance ($b = 0.08$, $p = .10$). This pattern confirms that CHR use increases for more negative behaviors independent of target type (Nelson & Malle, 2000) but, more important for our hypoth-

esis, the contrast among target conditions based on the parsimony hypothesis predicts CHR use independent of desirability and intentionality.

### Follow-Up Analysis 2: Replication

To replicate the difference between jointly acting and aggregate groups in another data set, we examined explanations collected in a series of studies on actor–observer asymmetries (Malle et al., 2001). To match closely the two critical conditions in Study 2, we selected observer explanations for aggregate groups ($N = 20$) and observer explanations for jointly acting groups ($N = 45$). (The interrater reliability for the aggregate/jointly acting distinction was 93%, $\kappa = 0.85$.) Corroborating our findings in Study 2, aggregate groups elicited a high number of CHR explanations ($M = 1.05$) and somewhat fewer reasons ($M = 0.90$), compared with jointly acting groups, which elicited few CHRs ($M = 0.20$) but many reasons ($M = 1.20$), multivariate $F(2, 62) = 4.84$, $p < .02$, $\eta^2 = 14\%$. In percentages, aggregate groups elicited 54% CHRs, whereas jointly acting groups elicited 14% CHRs.

We also averaged all individual target explanations in that data set ($N = 506$). The pattern for individual target explanations included more CHRs ($M = 0.51$) and somewhat fewer reasons ($M = 0.98$) than we saw in the jointly acting groups of that sample (CHRs: $M = 0.20$; reasons: $M = 1.20$), multivariate $F(2, 548) = 3.36$, $p < .04$. Thus, we replicated the unexpected finding from Study 2, according to which the CHR rates for jointly acting groups are even lower, and their reason rates higher, than those for individual targets.

### Discussion

Consistent with the parsimony principle, Study 2 showed that explanations for aggregate groups include more CHRs than explanations for unified agents (either individual persons or jointly acting groups). Because aggregate groups encompass many agents that act independently and presumably for different reasons, CHR factors provide a parsimonious explanation for their host of individual reasons. Two follow-up analyses strengthened our conclusion: The target effect was not an artifact of potential intentionality or social desirability differences between the actions performed by aggregate groups and the actions performed by jointly acting groups. Moreover, the target effect strongly replicated in another data set.

We have thus identified a first necessary condition for the difference in explanations of groups versus individuals. Social perceivers use a substantially greater rate of CHR explanations only for aggregate groups (groups that consist of multiple individual agents who are linguistically united by a group label). Members of aggregate groups often have very different reasons for acting, thus challenging parsimony and eliciting a greater number of CHR explanations to restore parsimony. Jointly acting groups, by contrast, act on joint reasons, which already present a parsimonious account of their action so that CHR explanations become unnecessary.

The perception of jointly acting groups as unified agents, and the explanation of their actions with a preponderance of reasons, may derive from the nature of coordination in group activity. When acting together, such groups must make their intentions and

reasons explicit in order to ensure participation and coordinated action by group members. When explaining such coordinated action, social perceivers will then use reason explanations to capture the deliberate and reasoned nature of the group action. In fact, if one considers the preponderance of reasons over CHRs as indicative of agent perception, then the present data suggest that jointly acting groups are perceived as even more deliberate agents than individuals. Further research is needed to explore this unexpected finding and examine whether social perceivers indeed see jointly acting groups as super agents, perhaps overestimating the amount of reasoning and deliberateness that goes into such group action. Especially when the action is perceived as negative or hostile, such a superagent perception may lead to stronger retaliatory responses (Abelson et al., 1998).

Now we turn to a second necessary condition for the greater CHR use in explanations of group action. The information principle states that when specific (mental-state) information about the agent is difficult to recruit, explainers will turn to general information in constructing their behavior explanations. In the case of groups, specific information is typically hard to come by, whereas general information is readily available in the form of stereotypic beliefs about the group's history, culture, and traits (Sherman, Beike, & Ryalls, 1999). This type of information is far more useful for constructing CHR explanations than for constructing reason explanations. Thus, the availability of general (stereotypical) information about groups helps account for the greater rate of CHR explanations in response to group actions compared with individual actions. If general information is a necessary condition for this greater CHR use in explaining group action (over and above the necessary condition that the group be an aggregate), the following prediction should hold: When such general information is absent (or cannot be easily inferred), CHR explanations are difficult to construct and explainers return to the default explanatory mode of reasons, but this time they will construct generic reasons that any agent might consider for performing the action. Thus, Study 3 compared explanations for known aggregates (social categories about whom the explainer has at least some stereotypic information) with explanations for unknown aggregates (about whom the explainer has no information). The prediction was that the rate of CHR explanations would be significantly greater among known aggregates than among unknown aggregates.

## Study 3

We conducted an initial study ($N = 42$) that contrasted explanations for social categories such as high school seniors or African Americans (known aggregates) to explanations for abstract groups such as Group A or Group D (unknown aggregates). Confirming the prediction, the explanations for known aggregates included 0.63 CHRs and 0.76 reasons, whereas explanations for unknown aggregates included only 0.31 CHRs and 0.99 reasons, multivariate $F(2, 39) = 7.26$, $p < .005$, $\eta^2 = 27\%$. However, these results could have been at least partially produced by the parsimony principle: Some people may have imagined the abstract groups A or D to be jointly acting and therefore offered more reasons and fewer causal histories. In our main study, we thus described the unknown aggregate group as "a variety of people," which rules out the possibility that it could be seen as a jointly acting group.

### Method

A total of 41 undergraduate students participated in this study. One participant's explanations were excluded because the experimenter described the person as incoherent. Students were approached in the Student Union, asked to complete a two-page measure, and offered compensation of $2. The measure used the familiar conversation-excerpt format, and participants were asked to explain four behaviors (not vote in the last election; work 70 hr/week, contribute to public broadcasting, cheat on taxes). Participants were randomly assigned to one of two target conditions, in which the agent was either a known aggregate (a variety of lawyers nationwide, a variety of Japanese businessmen, a variety of African Americans nationwide, a variety of wealthy Americans) or an unknown aggregate (a variety of people). For example, the first behavior was formulated either as "Why did a variety of lawyers nationwide not vote in the last election?" or as "Why did a variety of people nationwide not vote in the last election?" The procedures for computing CHR and reason scores per behavior and for coding explanations were identical to those in Study 1.

### Results

As expected, the explanation profiles for the two conditions were different. Known aggregates elicited 0.76 CHRs and 0.76 reasons, whereas unknown aggregates elicited 0.63 CHRs and 1.46 reasons. The multiple-measure MANOVA showed a substantial discrimination between these two profiles, multivariate $F(2, 37) = 7.53$, $p < .005$, $\eta^2 = 29\%$. Reasons contributed more strongly to the discriminant function ($a = 0.99$, univariate $\eta^2 = 29\%$, $p < .001$) than did CHRs ($a = -0.22$, univariate $\eta^2 = 2\%$, ns). The percentage of CHRs cited for known group targets was substantially greater (52%) than that for unknown group targets (27%).

In addition, however, the number of total explanations cited per response was higher for unknown groups ($M = 2.10$) than for known groups ($M = 1.52$), $F(1, 38) = 5.94$, $p < .05$, $\eta^2 = 14\%$. This rather large discrepancy in the number of explanations cited suggests that the overall MANOVA may be misleading. In fact, although the average number of explanations was 6.78, 3 participants cited more than 13 total explanations across the four behaviors, and all 3 of these participants were in the unknown group condition. When these three outliers were removed, unknown aggregates included 0.49 CHRs and 1.29 reasons as compared with 0.76 CHRs and 0.76 reasons in known aggregates, multivariate $F(2, 34) = 5.56$, $p < .01$, $\eta^2 = 25\%$. Reasons still contributed strongly to the discriminant function ($a = 0.97$, univariate $\eta^2 = 24\%$, $p < .01$), but CHRs were important as well ($a = -0.56$, univariate $\eta^2 = 10\%$, $p < .07$).

By ensuring that the unknown aggregates were really seen as aggregates (using the phrase "a variety of people"), we apparently made the explanation task very difficult. Participants were unable to provide parsimonious explanations and instead offered the highest number of explanations per behavior among all conditions of all studies reported here ($M = 2.10$). The difficulty of finding a single informative explanation for the action of an unknown aggregate is also illustrated by the number of multiple explanations connected by the word or, which was significantly greater in the unknown condition ($M = 0.95$) than in the known condition ($M = 0.25$), $F(1, 38) = 6.1$, $p < .05$. Thus, whereas people attempted to construct, or rather guess, a variety of explanations for the actions of unknown aggregates, they were able to focus on

fewer explanations for known group targets, and a full one half of these were CHR explanations.

## Discussion

We have shown that the relative use of CHR explanations is greater for known aggregates (social categories about whom the explainer had at least some stereotypic information) than for unknown aggregates or generic agents (about whom the explainer has no information). Thus, the availability of general information about the target is a necessary condition for an increase in CHR explanations. Such general information (e.g., about a group's history, culture, and common traits) is typical for representations of many social groups (e.g., Devine, 1989; Reicher et al., 1997; Wittenbrink et al., 1997), and so explanations of their actions will show a substantial increase in the rate of CHR explanations.

It might still seem paradoxical that explainers returned to reason explanations when they explained the actions performed by the generic unknown group. After all, are reasons not the most particular and informative of all explanation modes? To resolve this seeming paradox, one must keep in mind that reasons can indeed be informative if they capture the particular agent's reasoning in the specific context of deciding to act, but that they can also be quite generic if they merely point to why somebody—anybody—might plausibly act as described (Bruner, 1990).

To test this interpretation, we conducted a follow-up study ($N = 15$) identical in format to the main study, except that explanations of the stimulus behaviors were elicited for a generic agent ("Why might somebody perform this action?"). The pattern of explanations for such a generic agent should be similar to that for unknown aggregates, because in both cases no general information about the agent or the context is available and, instead, plausible reasons will be constructed from the nature of the action itself. Indeed, the results show that generic agents elicited 20% CHRs (0.46 CHRs and 1.67 reasons per behavior), which is similar to the rate of unknown aggregates (26% CHRs, 0.49 CHRs, 1.29 reasons) once the three outliers were removed.

A final question is whether explainers ever have the kind of particular information about groups that would allow them to rely much less on CHRs and instead explain the group's actions primarily with context-specific reasons in the first place. According to the information principle, this will be a rare case because explainers seldom have specific (mental state) information available about groups. But what kinds of groups might constitute such a rare case? One candidate is groups in which the explainers themselves are members. We do not mean jointly acting groups in which the explainer is a member, because in this case the predominant use of reasons would be due to the availability of joint reasons. Instead, we are referring to aggregate groups in which the explainer is a member. In this case, explainers may not exactly know the other group members' reasons but have intimate knowledge of at least one member's reasons—their own. It has been widely documented that people often regard themselves as representative of the entire group (Dawes, 1990; Krueger & Clement, 1997; Ross, Greene, & House, 1977). Thus, we expect that explainers of *we* actions will return to the low base rate of CHR explanations and use as many reasons as we saw for individual targets.

## Follow-Up Study on We Explanations

We tested the predicted boundary condition of aggregate *we* explanations using once more the plural explanations culled from Malle et al. (2001). We compared explanations of aggregate groups known to the explainer (*they* condition) with explanations of aggregate groups of which the explainer was a member (*we* condition). We would expect the CHR increase to occur only in the *they* condition. In addition, we examined whether this CHR increase among *they* explanations would be eliminated in the case of jointly acting groups, where the availability of parsimonious joint reason explanations should dampen the need for CHR explanations in the first place.

A total of 121 explained behaviors were identified, with their means displayed in Table 5. As predicted, the only increase of CHR explanations occurred in the case of *they* explanations for aggregate groups. Jointly acting groups (*we* and *they*) showed few CHRs and many reasons, and so did the important new condition of aggregate *we* groups. The corresponding interaction term was significant, multivariate $F(2, 116) = 4.6, p < .02, \eta^2 = 7\%$. CHRs contributed slightly more strongly to the discriminant function ($a = 0.95$, univariate $\eta^2 = 7\%, p < .01$) than did reasons ($a = -0.69$, univariate $\eta^2 = 4\%, p < .04$). These findings nicely illustrate the two necessary conditions of increased CHR explanations for group actions: The group must be an aggregate, and the explainer must have general (rather than specific or no) information available about the group.

## Traditional Attribution Analyses Across All Three Studies

One of the points we want to emphasize in the present article is the usefulness of studying behavior explanations as verbal statements (rather than as causal ratings). Such an approach requires taking people's own conceptual framework of human behavior into account as well as the various explanation modes that exist within this framework. In the present studies, we distinguished in particular between explanations that are reasons and those that are CHRs. We now examine, in contrast, the same set of verbal statements using the traditional attribution categories of person versus situation causes and assess the ability of these categories to discriminate among target types across the studies reported here.

From a traditional attribution perspective, we might expect that inasmuch as group targets are not generally perceived to be as entitive as individuals (McConnell et al., 1997), they should elicit

Table 5

*CHR Explanations and Reason Explanations per Behavior for Aggregate and Jointly Acting We Groups and They Groups (Follow-Up to Study 2)*

| Target | CHRs | Reasons |
|---|---|---|
| Aggregate groups | | |
| They | **1.1** | 0.9 |
| We | 0.1 | 1.5 |
| Jointly acting groups | | |
| They | 0.2 | 1.2 |
| We | 0.3 | 1.1 |

*Note.* The number printed in bold indicates the predicted increase in causal history of reason (CHR) explanations.

fewer person attributions than individual targets (Study 1). Moreover, inasmuch as jointly acting group targets have more coherence and unity than do aggregate group targets, attribution researchers would likely predict that jointly acting groups elicit a greater number of person causes than do aggregate groups (Study 2). Less clear is what role information about the group plays in the choice between person and situation causes. Perhaps one might predict that person factors will be more likely for known groups (social categories) than for unknown groups (a variety of people), because knowledge of the target is likely a prerequisite for formulating a person attribution (Study 3).

How can we use the person–situation dichotomy to classify explanations of intentional behavior even if this classification does not differentiate between reasons and CHRs? There are two options. First, one could classify all reasons as person factors (because they are mental states of the agent) and group them together with CHRs that refer to person factors (e.g., "She didn't vote because she's lazy"). The contrasting class would then be CHRs that refer to situation factors (e.g., "The seniors vandalized the gym because there was a lot of tension in the school"). This is a conceptual coding of the person–situation dichotomy because it is concerned with the locus of causality either in the person or the situation, regardless of the linguistic tools used to convey the explanation. When re-classifying all explanations across the three studies in this way and trying to discriminate between the various target conditions, the analyses of variance yielded significant effects only in Study 3 (see Table 6 for complete results). In this study, participants cited relatively more person factors ($M = 1.65$) and fewer situation factors ($M = 0.13$) for unknown groups than for known groups (person: $M = 1.19$; situation: $M = 0.32$), $F(1, 35) = 7.65$, $p < .01$. This is contrary to the expected pattern of more person attributions for known groups.

As an alternative, one could classify explanations as either person or situation factors depending on whether they mention something about the person or the situation. This is a linguistic coding of the person–situation dichotomy because it depends more on the words used in the explanation than on their underlying conceptual meaning. Despite repeated criticism of such a focus on the linguistic-surface level at the expense of the conceptual level (Antaki, 1994; Miller, Smith, & Uleman, 1981; Ross, 1977),

attribution researchers have consistently applied this linguistic-surface coding approach to explanations of intentional behavior (e.g., Islam & Hewstone, 1993; McGill, 1989; Nisbett, Caputo, Legant, & Marecek, 1973).

We reconstructed a linguistic person–situation classification as follows (based on Malle, 1999, Study 4; Malle et al., 2000, Study 4). To form a linguistic person category, we pooled all reasons that were marked with a mental state verb (e.g., "he thought"), all unmarked reasons (without "he thought" or "she wanted") that referred in their content to the person, and all CHRs that cited a person factor. To form a linguistic situation category, we pooled all unmarked reasons that referred in their content to the situation and all CHRs that cited a situation factor. In Study 1, participants cited relatively more person factors ($M = 1.26$) and fewer situation factors ($M = 0.16$) for individual targets than for group targets (person: $M = 1.25$; situation: $M = 0.42$), $F(1, 97) = 8.15$, $p < .01$. This finding is consistent with the prediction that explainers would cite person factors relatively more often for individual targets than for group targets. However, no differences emerged in Study 2. And in Study 3, contrary to predictions, participants cited relatively more person factors ($M = 1.60$) and fewer situation factors ($M = 0.18$) for unknown groups than for known groups (person: $M = 1.10$; situation: $M = 0.41$), interaction $F(1, 35) = 7.88$, $p < .01$.

To summarize, across three studies and two different ways of interpreting the person–situation dichotomy, three of six comparisons yielded some discrimination between target conditions. Two of them, however, are inconsistent with what might be expected from a traditional attribution perspective. Traditional attribution categories therefore do not seem to capture real differences between individual and group explanations. By contrast, the proposed distinction between reason explanations and CHR explanations reveals such differences, and the principles of parsimony and information successfully account for them.

## General Discussion

When people explain intentional actions, they predominantly provide reason explanations (Malle, 1999; Malle et al., 2000). The present findings suggest, however, that when explaining actions

Table 6

*Traditional Attribution Categories Do Not Differentiate Between Individual and Group Targets of Explanation*

| Target | Linguistic coding | | Conceptual coding | | F.Ex coding | |
|---|---|---|---|---|---|---|
| | Person | Situation | Person | Situation | CHRs | Reasons |
| Study 1 | | | | | | |
| Individual | 1.27 | 0.16 | 1.36 | 0.06 | 0.47 | 1.13 |
| Group | 1.25 | 0.42 | 1.45 | 0.19 | 0.78 | 0.99 |
| Study 2 | | | | | | |
| Individual | 0.99 | 0.23 | 1.17 | 0.03 | 0.38 | 0.91 |
| Jointly acting group | 0.97 | 0.21 | 1.16 | 0.01 | 0.23 | 1.00 |
| Aggregate group | 0.96 | 0.24 | 1.15 | 0.04 | 0.52 | 0.86 |
| Study 3 | | | | | | |
| Unknown aggregate | 1.60 | 0.18 | 1.65 | 0.13 | 0.48 | 1.29 |
| Known aggregate | 1.10 | 0.41 | 1.19 | 0.32 | 0.76 | 0.76 |

*Note.* CHRs = causal histories of reasons.

performed by groups, people often cite factors that form the causal history of the target's reasons. Across all reported data sets, the rate of CHR explanations increased from 25% for individual targets to 45% for group targets. We have provided evidence that this increase occurs if two conditions are met: when the explainer perceives the group as an aggregate of individual agents (parsimony principle, Study 2), and when the explainer's knowledge about such an aggregate includes general information (information principle, Study 3).

These two principles of parsimony and information were derived from a social perceiver's rational considerations when explaining group behavior. Given that aggregate groups are conceptualized as a set of independent actors (who share a group affiliation), social perceivers respond to the group behavior by attempting to select a parsimonious explanation for the entire set of actors. This preference for parsimony will often lead to offering CHRs. Furthermore, when social perceivers construct explanations of a particular agent they try to recruit pertinent information about the agent, and for group agents this information will often be general and stereotypic, fostering CHR explanations. The information principle suggests, however, that CHR use is not a default feature of group explanations. Rather, if no information about the agent is available, explainers often fall back on what they can construct more easily—generic reasons why anyone would perform the behavior in question.

The reported findings suggest that the parsimony and information principle are individually necessary (and perhaps jointly sufficient) for producing increased CHR rates in explanations for group actions. When we removed the need for parsimony (Study 2, jointly acting groups condition), participants' general knowledge of the groups was still present but did not by itself create the effect. Likewise, when we removed the participants' general knowledge about a group (Study 3, unknown aggregates condition), the need for parsimony was still present but did not by itself create the effect. Only if both the motivation for a parsimonious explanation is triggered (when the target is an aggregate of multiple agents who act for different reasons) and general information about the group is available (presumably in stereotypic representations) do explainers offer an increased rate of CHR explanations for group targets.

## Groups as Agents

Even though we highlighted the difference between individual and group explanations in the relative use of CHR explanations, we should emphasize that people explained group actions with the same tools as they explained individual actions. In particular, they often explained group actions with reasons. Because reason explanations refer to the mental states of agents, the question arises whether people view all groups as group agents. Here the distinction between jointly acting groups and aggregate groups is again of importance. In the case of jointly acting groups, the frequent use of reasons indicates people's perception of the group as a unified agent whose group-level reasons they try to infer (cf. M. Gilbert, 1992). In the case of aggregate groups, which comprise many independent agents who have their own reasons for acting, people typically do not know or cannot infer all of these independent reasons and often aim for a more parsimonious causal history explanation. Nevertheless, people still ascribe reasons to aggregate

groups in about one half of their explanations. So what do explainers mean by those reason ascriptions?

One possibility is that people offer reasons for aggregate group actions because they believe that the multiple agents comprising the aggregate are very similar to each other (e.g., Linville & Fischer, 1998) and therefore have the same reason for acting. This prevalent reason would be the most parsimonious explanation. Future research might thus relate the use of reason explanations for group actions to perceptions of group homogeneity.

A second possibility is that some people perceive aggregates (e.g., "African Americans"; "high school students") as coordinated groups who plan their actions together. Thus, their reason explanations are meant as the group's joint reason for performing the action in question. This tendency of interpreting coordination and joint action where there is only aggregate behavior may account for conspiracy theories and may also motivate intergroup violence (Abelson et al., 1998). In Kosovo, Yugoslavia, for example, Serbs may see Muslims not only as an aggregate of people who possess inferior traits but rather as a joint agent who intends to undermine the legitimacy of the Serb way of life. Perceptions of the other group as strong, malevolent, and dangerous will likely increase when the group is thus perceived to be a coordinated, unified agent (cf. Insko & Schopler, 1987).

The two possible meanings of group reasons represent an important distinction. When people offer a reason for group behavior, they may be conceptualizing this reason either as a prevalent reason held by many individual members of that group or as the group's joint reason for performing the action. Prevalent reasons are ascribed to each individual group member who acts like other members without a hint at a joint decision (e.g., people standing in line at the ticket window because "they want to see the latest Star Wars movie"). Joint reasons are ascribed to a group mind—a coordinated group agent acting on a joint decision (e.g., a family standing in line at the ticket window because "they want to see the latest Star Wars movie"). This distinction is sometimes even linguistically marked. For example, the adverb *together* can be used to indicate joint reasons, as in "The Bethel fifth graders studied hard together because they wanted to get good grades." By contrast, the adjective *all* can be used to indicate prevalent reasons, as in "All the Bethel fifth graders studied hard because they wanted to get good grades."

## Groups as Entities and Agents

The present studies join a resurgence of interest in the social perception of groups led by researchers interested in the perception of entitivity (e.g., Brewer & Harasty, 1996; Hamilton & Sherman, 1996). But whereas researchers in this tradition have primarily emphasized the ascription of traits to groups and the assumption of an underlying essence among the members of a group (e.g., Rothbart & Taylor, 1992; Yzerbyt, Rocher, & Schadron, 1997), we have focused on the perception and explanation of group actions— how social perceivers conceptualize groups as agents and therefore may perceive a group mind (Abelson et al., 1998). Despite these differences, two basic findings converge from other researchers' and our own results.

First, people clearly distinguish between groups on the basis of perceptions of unity and coherence. For most researchers emphasizing entitivity, these perceptions of unity rely primarily on such

gestaltist principles as similarity, proximity, and common fate (D. T. Campbell, 1958; Knowles & Bassett, 1976; McConnell et al., 1997; Yzerbyt et al., 1998). The perception of unity leads perceivers to expect greater behavioral consistency over time as a result of the permanence and structure among group member traits. Recently, researchers have also begun to investigate people's perception of joint goals and interaction within groups (Lickel et al., 2000; Wilder & Simon, 1998). Our approach is closer to the latter trend, which assumes that the unity and coherence perceived in a group is often based on the concepts of joint intention and joint action (see Abelson et al., 1998). Jointly acting groups are seen as coherent because they engaged in a deliberation process together, adopted a joint intention, and performed a coordinated group action.

Second, both approaches provide evidence for the claim that perceivers treat unified (i.e., highly entitive or jointly acting) groups just as they treat individual persons, that is, as coherent objects of social perception and intentional agents in the world. Thus, in parallel to findings that people form impressions of some groups much like they form impressions of individuals (e.g., Yzerbyt et al., 1998), we saw that people explain behaviors of jointly acting groups much like they explain behaviors of individuals, that is, by focusing primarily on their (joint) reasons.

The emphases of the two research approaches are different, however. Research based in an entitive approach focuses on people's perceptions of groups as coherent units that have stable attributes (such as traits), whereas our research examines the conditions under which people perceive groups as agents who act in the world based on their subjective reasons (beliefs, desires). We believe that the concept of agency, in complement to the concept of entitivity, allows for a more refined examination of how people treat groups. For example, what we label aggregate groups (e.g., African Americans) are often considered entitive groups in other research, but our data suggest that people do not treat them as full-fledged agents, as is indicated by the increased use of CHR explanations. Only when such entitive groups are perceived as jointly acting are they treated as coherent agents, as is indicated by the predominant ascription of joint reasons. Thus, the agency concept makes a distinction where the entitivity concept fails to make one between aggregate and jointly acting groups and the resulting ways in which people treat groups, such as by ascribing mental states to them and explaining their actions with reasons.

One might adapt the entitivity concept to allow for a continuum of entitivity (e.g., Hamilton et al., 1998), in which case jointly acting groups are more entitive than aggregate groups. In the end, however, an account of the difference in entitivity between the two types of groups will have to resort to the concept of agency, so it appears more fruitful to introduce the concept of agency alongside the concept of entitivity and explore the differential predictive power of each. For example, an agentive framework accounts for the fact that one and the same entity (such as a department faculty) may be seen as a joint agent in one context (if it votes on a candidate) and as an aggregate in another context (if all faculty members work hard in their offices). Thus, when groups are viewed as performing actions in particular circumstances, their abstract entitivity may be psychologically less relevant than their contextualized status as aggregate or joint agents.

## Future Research

Our research has illustrated some of the key concepts and regularities in folk explanations of group behavior, and several issues for future research arise from our findings. If the type of group (jointly acting or aggregate) elicits different kinds of explanation (CHR or reason), the kind of explanation a speaker offers may suggest to audiences what type of group the speaker has in mind. Offering a reason or CHR explanation would then subtly influence an audience's perception of a group, for example, as more or less homogenous and coordinated. This choice of explanation becomes particularly powerful when the action explained is negative, because in that case reasons will often imply that the decision to commit the negative act was deliberate and coordinated, likely ensuing in more blame or punishment for the members of that group. Explanations can thus be studied as rhetorical devices that indicate the speaker's attitude toward a group and the perception that the speaker wants to invoke in an audience (cf. Yzerbyt et al., 1997). For example, Marxists may analyze behavior at a remote level, citing CHR explanations (often in the greater economic system) for aggregate behavior. Conservative pundits, who emphasize individual accountability, may personalize aggregate group actions by emphasizing what they perceive to be the reasons for those actions.

We would therefore expect that people strategically use the language of reasons and joint agency to paint a hated group in the most coordinated and most threatening light. For example, a recent Oregon ballot measure proposed that homosexuality should not be encouraged, promoted, or sanctioned in public schools. One of the sponsors of the measure explained the behavior of homosexuals this way:

> It is obvious that homosexual "education" actually is a mainstay of their movement. They want to recruit kids—if not directly into homosexuality, then into their corps of supporters. Measure 9 will put a stop to the hijacking of our educational system by the homosexual activists. (Christian Coalition of Oregon, 2000)

The authors of this segment cite a potent desire that creates a vivid image of homosexuals as a coordinated, menacing group. Following Abelson et al. (1998), we expect that portraying groups as jointly acting on the basis of shared undesirable reasons ("They want to recruit kids") can lead to particularly negative evaluations of that group, to fear, and to defensive behavior (e.g., voting for the mentioned measure).

The differential use of reasons and CHRs is one of perhaps many indicators of how people see the social world and how they, through communication, persuade others to see it the same way. Future research should thus investigate both the antecedents of choosing modes of explanation and consequences of this choice for impressions of, and actions toward, the targets of explanation. The study of explanations and their consequences in communication may thus prove fruitful for understanding the cognitive, affective, and behavioral responses to social groups.

## References

Abelson, R. P., Dasgupta, N. Park, J., & Banaji, M. R. (1998). Perceptions of the collective other. *Personality and Social Psychology Review, 2,* 243–250.

Anderson, C. A., Krull, D. S., & Weiner, B. (1996). Explanations: Processes and consequences. In E. T. Higgins, & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 271–296). New York: Guilford Press.

Antaki, C. (1994). *Explaining and arguing: The social organization of accounts*. Thousand Oaks, CA: Sage.

Audi, R. (1993). *Action, intention, and reason*. Ithaca, NY: Cornell University Press.

Bartsch, K., & Wellman, H. M. (1995). *Children talk about the mind*. New York: Oxford University Press.

Bratman, M. E. (1993). Shared intentions. *Ethics, 104,* 97–113.

Brewer, M. B., & Harasty, A. S. (1996). Seeing groups as entities: The role of perceiver motivation. In R. M. Sorrentino & E. T. Higgins (Eds.), *The handbook of motivation and cognition, Vol. 3: The interpersonal context* (pp. 347–370). New York: Guilford Press.

Brewer, M. B., Weber, J. G., Carini, B. (1995). Person memory in intergroup contexts: Categorization versus individuation. *Journal of Personality and Social Psychology, 69,* 29–40.

Bruner, J. S. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.

Buss, A. R. (1978). Causes and reasons in attribution theory: A conceptual critique. *Journal of Personality and Social Psychology, 36,* 1311–1321.

Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of persons as social entities. *Behavioral Science, 3,* 14–25.

Christian Coalition of Oregon. (2000). *Argument in favor of measure 9*. Retrieved April 5, 2001, from http://www.sos.state.or.us/elections/nov72000/guide/mea/m9/9fa.htm.

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.

Dawes, R. M. (1990). The potential nonfalsity of the false consensus effect. In R. M. Hogarth (Ed.), *Insights in decision making: A tribute to Hillel J. Einhorn* (pp. 179–199). Chicago: University of Chicago Press.

Devine, P. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56,* 5–18.

Durkheim, E. (1951). *Suicide: A study in sociology* (J. A. Spaulding & G. Simpson, Trans.). Glencoe, IL: Free Press. (Original work published 1897)

Dweck, C. S., Chiu, C., Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry, 6,* 267–285.

Fletcher, G. J. (1983). The analysis of verbal explanations for marital separation: Implications for attribution theory. *Journal of Applied Social Psychology, 13,* 245–258.

Gilbert, D. T. (1995). Attribution and interpersonal perception. In A. Tesser (Ed.), *Advanced social psychology* (pp. 99–147). New York: McGraw-Hill.

Gilbert, M. (1992). *On social facts*. Princeton, NJ: Princeton University Press.

Gopnik, A., & Meltzoff, A. N. (1997). *Words, thoughts, and theories*. Cambridge, MA: MIT Press.

Hamilton, D. L., & Sherman, S. J. (1996). Perceiving persons and groups. *Psychological Review, 103,* 336–355.

Hamilton, D. L., Sherman, S. J., & Lickel, B. (1998). Perceiving social groups: The importance of the entitativity continuum. In C. Sedikides & J. Schopler (Eds.), *Intergroup cognition and intergroup behavior* (pp. 47–74). Mahwah, NJ: Erlbaum.

Hastorf, A. H., Schneider, D. J., & Polefka, J. (1970). *Person perception*. Reading, MA: Addison-Wesley.

Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.

Hewstone, M. (1990). The "ultimate attribution error"? A review of the literature on intergroup causal attribution. *European Journal of Social Psychology, 20,* 311–335.

Hilton, D. J. (1990). Conversational processes and causal explanation. *Psychological Bulletin, 107,* 65–81.

Hirschberg, N. (1978). A correct treatment of traits. In H. London (Ed.), *Personality: A new look at metatheories* (pp. 45–68). New York: Wiley.

Holtzworth-Munroe, A., & Jacobson, N. S. (1988). Toward a methodology for coding spontaneous causal attributions: Preliminary results with married couples. *Journal of Social and Clinical Psychology, 7,* 101–112.

Insko, C. A., & Schopler, J. (1987). Categorization, competition, and collectivity. In C. Hendrick (Ed.), *Group processes. Review of personality and social psychology* (Vol. 8, pp. 213–251). Newbury Park, CA: Sage.

Islam, M. R., & Hewstone, M. (1993). Intergroup attributions and affective consequences in majority and minority groups. *Journal of Personality and Social Psychology, 64,* 936–950.

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.

Kalish, C. (1998). Reasons and causes: Children's understanding of conformity to social rules and physical laws. *Child Development, 69,* 706–720.

Kashima, Y., McIntyre, A., & Clifford, P. (1998). The category of the mind: Folk psychology of belief, desire, and intention. *Asian Journal of Social Psychology, 1,* 289–313.

Kelley, H. H. (1967). Attribution theory in social psychology. *Nebraska Symposium on Motivation, 15,* 192–238.

Kidd, R. F., & Amabile, T. M. (1981). Causal explanations in social interaction: Some dialogues on dialogue. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 3, pp. 307–328). Hillsdale, NJ: Erlbaum.

Knowles, E. S, & Bassett, R. L. (1976). Groups and crowds as social entities: Effects of activity, size, and member similarity on nonmembers. *Journal of Personality and Social Psychology, 34,* 837–845.

Krueger, J., & Clement, R. W. (1997). Estimates of social consensus by majorities and minorities: The case for social projection. *Personality and Social Psychology Review, 1,* 299–313.

Lewis, P. T. (1995). A naturalistic test of two fundamental propositions: Correspondence bias and the actor–observer hypothesis. *Journal of Personality, 63,* 87–111.

Lickel, B., Hamilton, D. L, Wieczorkowska, G. Lewis, A., Sherman, S. J., & Uhles, A. N. (2000). Varieties of groups and the perception of group entitativity. *Journal of Personality and Social Psychology, 78,* 223–246.

Linville, P. W., & Fischer, G. W. (1998). Group variability and covariation: Effects on intergroup judgment and behavior. In C. Sedikides & J. Schopler (Eds.), *Intergroup cognition and intergroup behavior* (pp. 123–150). Mahwah, NJ: Erlbaum.

Locke, D., & Pennington, D. (1982). Reasons and other causes: Their role in attribution processes. *Journal of Personality and Social Psychology, 42,* 212–223.

Malle, B. F. (1994). *Intentionality and explanation: A study in the folk theory of behavior*. Unpublished doctoral dissertation, Stanford University, Stanford, CA.

Malle, B. F. (1997). People's folk theory of behavior. In M. G. Shafto & P. Langley (Eds.), *Proceedings of the Nineteenth Annual Conference of the Cognitive Science Society* (pp. 478–483). Mahwah, NJ: Erlbaum.

Malle, B. F. (1998). F.Ex: *A coding scheme for free response behavior explanations*. Retrieved April 5, 2001, from http://darkwing.uoregon.edu/~bfmalle/fex.html.

Malle, B. F. (1999). How people explain behavior: A new theoretical framework. *Personality and Social Psychology Review, 3,* 21–43.

Malle, B. F. (2001). Folk explanations of intentional action. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality:*

*Foundations of social cognition.* (pp. 265–286) Cambridge, MA: MIT Press.

Malle, B. F., & Knobe, J. (1997a). The folk concept of intentionality. *Journal of Experimental Social Psychology, 33,* 101–121.

Malle, B. F., & Knobe, S. (1997b). Which behaviors do people explain? A basic actor–observer asymmetry. *Journal of Personality and Social Psychology, 72,* 288–304.

Malle, B. F., Knobe, J., & Nelson, S. E. (2001). *Actor–observer asymmetries in folk explanations of behavior: New answers to an old question.* Manuscript in preparation, University of Oregon.

Malle, B. F., Knobe, J., O'Laughlin, M. J., Pearce, G. E., & Nelson, S. E. (2000). Conceptual structure and social functions of behavior explanations: Beyond person–situation attributions. *Journal of Personality and Social Psychology, 79,* 309–326.

McConnell, A. R., Sherman, S. J., & Hamilton, D. L. (1997). Target entitativity: Implications for information processing about individual and group targets. *Journal of Personality and Social Psychology, 72,* 750–762.

McGill, A. L. (1989). Context effects in judgments of causation. *Journal of Personality and Social Psychology, 57,* 189–200.

Mele, A. R. (1992). *Springs of action: Understanding intentional behavior.* New York: Oxford University Press.

Menon, T., Morris, M. W., Chiu, C.-Y., & Hong, Y.-Y. (1999). Culture and the construal of agency: Attribution to individual versus group dispositions. *Journal of Personality and Social Psychology, 76,* 701–717.

Miller, F. D., Smith, E. R., & Uleman, J. (1981). Measurement and interpretation of situational and dispositional attributions. *Journal of Experimental Social Psychology, 17,* 80–95.

Nelson, S. E., & Malle, B. F. (2000, April). *Explaining intentional actions in the context of social perception and judgment.* Poster presented at the annual meeting of the Western Psychological Association, Portland, OR.

Nisbett, R. E. (1980). The trait construct in lay and professional psychology. In L. Festinger (Ed.), *Retrospections on social psychology* (pp. 109–113). New York: Oxford University Press.

Nisbett, R. E., Caputo, C., Legant, P., & Marecek, J. (1973). Behavior as seen by the actor and as seen by the observer. *Journal of Personality and Social Psychology, 27,* 154–164.

Perner, J. (1991). *Understanding the representational mind.* Cambridge, MA: MIT Press.

Pettigrew, T. F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. *Personality and Social Psychology Bulletin, 5,* 461–476.

Read, S. J. (1987). Constructing causal scenarios: A knowledge structure approach to causal reasoning. *Journal of Personality and Social Psychology, 52,* 288–302.

Reicher, S. D., Hopkins, N., & Condor, S. (1997). Stereotype construction as a strategy of influence. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 94–118). Oxford, England: Blackwell.

Rosati, A. D., Knowles, E. D., Kalish, C. W., Gopnik, A., Ames, D. R., & Morris, M. W. (2001). The rocky road from acts to dispositions: Insights for attribution theory from developmental research on theories of mind. In B. F. Malle, L. J. Moses, & D. A. Baldwin (Eds.), *Intentions and intentionality: Foundations of social cognition* (pp. 287–303). Cambridge, MA: MIT Press.

Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 174–221). New York: Academic Press.

Ross, L. D., 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., Greene, D., & House, P. (1977). The "false-consensus effect:" An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology, 13,* 279–301.

Rothbart, M., & Taylor, M. (1992). Category labels and social reality: Do we view social categories as natural kinds? In G. R. Semin, R. Guen, & K. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 11–36). London: Sage.

Searle, J. R. (1983). *Intentionality: An essay in the philosophy of mind.* Cambridge, England: Cambridge University Press.

Shaver, K. G. (1975). *An introduction to attribution processes.* Cambridge, MA: Winthrop.

Sherman, S. J., Beike, D. R., & Ryalls, K. R. (1999). Dual-processing accounts of inconsistencies in responses to general versus specific cases. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 203–227). New York: Guilford.

Steinberg, S. (1974). *The American melting pot.* New York: McGraw Hill.

Stoughton, S. (1999, April 20). Cosmetic center continues slide: Columbia-based chain seeks bankruptcy, new leadership. *The Washington Post,* p. E03.

Susskind, J., Maurer, K., Thakkar, V., Hamilton, D. L., & Sherman, J. W. (1999). Perceiving individuals and groups: Expectancies, dispositional inferences, and causal attributions. *Journal of Personality and Social Psychology, 76,* 181–191.

Truell, P. (1998, August 23). Investing it: The black invester, playing catch-up. *The New York Times,* Section 3, p. 1.

Velleman, J. D. (1997). How to share an intention. *Philosophy and Phenomenological Research, 57,* 29–50.

Weisz, C., & Jones, E. E. (1993). Expectancy disconfirmation and dispositional inference: Latent strength of target-based and category-based expectancies. *Personality and Social Psychology Bulletin, 19,* 563–573.

Wellman, H. M. (1990). *The child's theory of mind.* Cambridge, MA: MIT Press.

Wilder, D. A. &, Simon, A. F. (1998). Categorical and dynamic groups: Implications for social perception and intergroup behavior. In C. Sedikides, J. Schopler, & C. Insko (Eds.), *Intergroup cognition and intergroup behavior* (pp. 27–44). Mahwah, NJ: Erlbaum.

Wilson, J. Q. (1997). *Moral judgment: Does the abuse excuse threaten our legal system?* New York: HarperCollins.

Wittenbrink, B., Gist, P. L, & Hilton, J. L. (1997). Structural properties of stereotypic knowledge and their influences on the construal of social situations. *Journal of Personality and Social Psychology, 72,* 526–543.

Yzerbyt, V., Rocher, S., & Schadron, G. (1997) Stereotypes as explanations: A subjective essentialistic view of group perception. In E. Spears & P. Oakes (Eds.), *The social psychology of stereotyping and group life* (pp. 20–50). Oxford, England: Blackwell.

Yzerbyt, V., Rogier, A., & Fiske, S. T. (1998). Group entitativity and social attribution: On translating situational constraints into stereotypes. *Personality and Social Psychology Bulletin, 24,* 1089–1103.

(*Appendix follows*)

## Appendix

## Coding Rules (Excerpted from Malle, 1998)

### Reason Explanations

#### General Rule

Reason explanations explain intentional actions by citing the kinds of things the agent considered when forming an intention to act, the reasons *for which* the agent performed the action. These reasons are subjective mental states (desires, beliefs, valuings) that the agent had at the time of deciding to act. For example, "Anne ignored Greg's arguments because she knew she was right" or "Why did Jarron give in?"—"He wanted to end the argument."

#### Further Comments

Because the actor behaves for the reason given, he or she must be (at least dimly) *aware* of those reasons at the time of acting (subjectivity rule). If "Anne applauded the musicians" is explained by "because other people did so," then Anne must have been aware that she applauded for that reason. If she did not, then other people's applauding *caused* her to applaud (she did it automatically), which would suggest a code for a cause explanation. (We thus code unconscious reasons as cause explanations.)

The agent must have regarded the cited reasons as suitable or reasonable grounds for acting (rationality rule). For example, "Ben interrupted his mother because he was thinking about other things" is not a reason explanation because his thinking about other things did not provide reasonable grounds for interrupting her. However, "Ben interrupted his mother because he was thinking about leaving" is a reason explanation because Ben perceived the cited information as reasonable grounds for interrupting her.

### Causal History of Reason Explanations

#### General Rule

Causal history of reason explanations also explain intentional behavior, but they cite factors that *preceded* (and caused) the agent's reasons. These factors literally lie in the causal history of the actor's reasons but are not themselves reasons. For example, "Why did Jarron give in?"—"He is good-natured." Here, Jarron wasn't actually thinking, "I am good-natured; therefore, I should give in." In fact, he may not even be aware that he is good-natured. Rather, the explainer presents Jarron's good-natured character as an objective fact that brought about his specific reasons (e.g., his desire to end the argument).

#### Further Comments

Contrary to reasons, causal history factors are not considered by agents when forming an intention to act. Agents may not be aware of the causal history of their reasons, at least at the time they form their intention. Thus, when coders encounter an intentional behavior and need to decide whether it is explained by a causal history or a reason explanation, they should follow this rule: An explanatory content of which the agent was not aware *cannot* be the reason for which she acted; it is likely a causal history of her reasons.

If the explanation contains a factor of which the agent *was aware*, then it likely functioned as a reason: "Anne applauded the musicians. Why? Because she enjoyed their performance and she wanted to show that." However, sometimes agents are generally aware of causal history factors, even if they did not actively consider them when they formed their intention. For example, "Anne invited Ben for lunch. Why? Because they are good friends." Anne is generally aware of the fact that she and Ben are good friends. However, when deciding to invite him for lunch, she probably did not think, "We are good friends; therefore I should invite him to lunch."

When we code something as a causal history factor, there must be some reason on which the action is based (whether it is mentioned in the explanation or not). If the explainer's utterance suggests that there was no reason for which the agent performed the behavior (i.e., the behavior was unintentional), then we have a cause explanation, not a causal history of reason explanation.

Sometimes causal histories of reasons co-occur with reasons. For example "Anne invited Ben for lunch. Why?—Because she is outgoing, and she wanted to talk to Ben." In addition to a particular reason why Anne invited Ben for lunch (she wanted to talk to him), the explainer also cites a fact that preceded both Anne's reason and her action, her trait of being outgoing.