

## Attributions for Nonverbal Expressions of Liking and Disliking: The Extended Self-Serving Bias

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Although the desire to be liked and appreciated is among the most fundamental in the human experience (Maslow, 1970; Rotter, Chance & Phares, 1972), the expression of liking has the potential to generate negative as well as positive outcomes, which may in part be a function of what attributions are made for such expressions. The present experiment extends a common principle of attribution-making, the self-serving bias, to predict and explain participants' and nonparticipant observers' attributions for a confederate's nonverbal expressions of liking or disliking. Results indicated that (1) for participants but not for observers, expressions of disliking were more likely to elicit attributions than were expressions of liking; (2) participants were more likely to make attributions than were observers; (3) participants made more external, uncontrollable attributions for expressions of disliking than did observers; and, (4) participants made more internal, controllable attributions for expressions of liking than for expressions of disliking.

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Within interpersonal interaction, few forms of communication may be simultaneously as valued and as risk-laden as the communication of liking, appreciation, or affection. The importance of such expressions in the development and maintenance of human relationships can hardly be disputed. Indeed, affectionate expressions are often treated as critical incidents in the advancement of relational development, while their absence in established relationships may be taken as evidence of relational deterioration (see Owen, 1987).

Despite their benefits, communication behaviors that express liking or affection may invite a number of risks. Perhaps the most evident risk is that the sentiment will not be reciprocated, leaving the sender in a face-compromising position (Floyd and Burgoon, 1999; Shimanoff, 1985). Other risks, however, are associated with the interpretations and causal inferences made for such expressions. For example, the intended meaning of the expression may be fundamentally misunderstood. A verbal expression of liking, for instance, may be intended to communicate a platonic sentiment but may be interpreted as an expression of

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romantic interest. Moreover, an expression of liking may not be interpreted as sincere but may be attributed to ulterior motives, such as an attempt to curry favor or gain compliance. Indeed, affectionate behavior can be used strategically for these and other purposes (see Booth-Butterfield & Trotta, 1994). While these risks plague affectionate communication to varying degrees in most relationship types, they may be magnified in interactions between strangers, given strangers' lack of information about each others' idiosyncratic behavior patterns and the lack of clarity and consensus they often have regarding the desired nature of their prospective relationship.

One theoretic framework for studying individuals' judgments for others' interpersonal behaviors is provided by attribution theory. As part of a program of research on cognitive and behavioral responses to affectionate expressions (see, e.g., Floyd and Morman, 1997, in press; Floyd and Voloudakis, 1999a), the current investigation employs the principles of attribution theory to examine individuals' causal judgments about expressions of liking or disliking that they receive or observe from unacquainted others. Specifically, two common principles of attribution-making, the self-serving bias and the fundamental attribution error, are contrasted and the self-serving bias is extended to predict individuals' attributions for behaviors they receive.

### Attribution Theory

Attributions are inferences individuals make about their own and others' behaviors that pertain to why those behaviors occurred. A series of perspectives collectively known as *attribution theory* has been proffered to explain the nature of attributions and the factors affecting them (Heider, 1959; Kelley, 1972). One of the most widely adopted approaches to characterizing attributions suggests that attributions embody two distinct, although nonorthogonal, dimensions. *Causality* refers to judgments about the location of a behavior's cause. Some behaviors are attributed to causes that are stable and internal to the actor (e.g., he was late because he has no concept of time), while others are attributed to causes that are situation-specific and external to the actor (e.g., he was late because of heavy traffic). *Responsibility* refers to judgments about whether an actor's behaviors were intentional and whether the actor should be held accountable for those behaviors. Individuals are generally perceived to be responsible for actions if they have control over the cause of those actions (e.g., she failed the exam because she partied the night before). However, individuals are generally not perceived to be responsible for actions if they cannot control their cause (e.g., she failed the exam because a family member died the night before). As Bradbury and Fincham (1992) noted, "attributions of responsibility are thought to presuppose, or follow from, attributions of cause (i.e., if someone did not cause something, he or she probably will not be held responsible for it; Fincham & Jaspars, 1980)" (p. 616). As a result, causality and responsibility attributions are expected to covary.

Some perspectives have focused on predicting when particular types of attributions are more likely to be made than others. Two of the most widely tested perspectives are the *self-serving bias* (SSB) and the *fundamental attribution error* (FAE). The tenets of each are explicated below.

### *The Self-Serving Bias*

The SSB draws on the theoretic concept of positive face (Brown & Levinson, 1987; Goffman, 1959), or people's needs to be respected, loved, and affirmed by others. The SSB predicts that, to protect their positive face, individuals form attributions that cast them in the most favorable light. Specifically, it predicts that people will attribute their successes to internal, controllable causes (e.g., I got an "A" because I'm smart), and their failures to external, uncontrollable causes (e.g., I got an "F" because the dogs kept me awake all night).

Underpinning this prediction is an assumption that, although it may seem self-evident, is critical to understanding the SSB. The assumption is that *attributions have personal implications for the attribution-maker*. In this context, "personal implications" refers to the real or perceived consequences of a particular attribution to which the attribution-maker must attend. For instance, a student who fails a test is likely to realize that others will see her as less intelligent, less competent, or less motivated if she deems herself responsible for the failure than if she deems the failure accidental. Thus, the type of attribution she makes has implications for her image and perhaps for her future relationships with her classmates. Similarly, a man who brings home flowers on his wife's birthday will likely be seen as more caring, loving, and sensitive if he claims the act was intentional and controllable ("I got these for you for your birthday") than if he does not ("Someone at work gave these to me"). This proposition may be most evident when one considers that the ways individuals explain their behavior to others (i.e., public attributions) often differ from the explanations they themselves believe to be valid (i.e., private attributions) (Dickson, Manusov, Cody, & McLaughlin, 1996; Manusov, Trees, Reddick, Rowe, & Easley, 1998; Weiner, Amirkhan, Folkes, & Verette, 1987). For instance, although a student knows he failed his exam because he did not study, he may publicly attribute his failure to a more external, uncontrollable cause to save face.

Empirical research on the SSB has been conducted largely within two paradigms: studies of interpersonal influence and studies of skill-oriented task performance (for review, see Bradley, 1978). Participants in interpersonal influence studies have generally been charged with trying to induce change in another person, and then judging how much of the observed change is due to the influence attempt. For instance, Schopler and Layton (1972) told participants that their fictitious partners had scored either high or low on the first half of a social sensitivity test. Participants then provided their fictitious partners with what they

thought were the correct answers to the items on the second half of the test, and were told that their partners' performance on the second half of the test had either improved or deteriorated. Finally, participants indicated the extent to which they believed they had influenced their partners' performance. As hypothesized, perceived influence was greater when partners' scores improved over time than when they deteriorated (see also Arkin, Gleason, & Johnston, 1976; Harvey, Arkin, Gleason, & Johnston, 1974).

Participants in task performance studies have been given feedback that they had either succeeded or failed on a skill task and been asked to assign causality for their performances. For example, Luginbuhl, Crowe, and Kahan (1975) had participants perform a task "analogous to that of a radar operator who must discriminate among objects such as airplanes, birds, and clouds which appear on the screen" (p. 633). After each of 30 attempts, participants were given bogus feedback indicating that their responses were correct or incorrect. At the end of the experiment, participants assigned causality for their performance along the dimensions of ability, effort, task difficulty, and luck. Consistent with the SSB, participants attributed their successful outcomes to internal causes (ability and effort) more than their unsuccessful outcomes, and reported that effort was the major predictor of success but luck (or lack thereof) was the major predictor of failure. Several other investigations have produced results that are similarly consistent with the SSB (e.g., Sicoily & Ross, 1977; Snyder, Stephan, & Rosenfield, 1976; Stevens & Jones, 1976). Although Miller and Ross (1975) criticized much of the SSB research, offering rival hypotheses for observed effects, Bradley (1978) argued persuasively that such rival hypotheses were untenable and that extant evidence did, in fact, support the SSB.

### *The Fundamental Attribution Error*

Unlike the SSB, the FAE deals with observers' attributions for an actor's behavior, rather than the actor's own attributions.<sup>1</sup> It predicts that, all other things being equal, people are more likely to attribute others' behaviors to internal, controllable causes than to external, uncontrollable causes. For example, an individual who is cut off in traffic is less likely to conclude that the offending driver "is probably late for something important" and more likely to conclude that "he's a jerk."

An important theoretic discrimination between the FAE and the SSB centers on whether the actor or the observer is the attribution-maker. Theoretically, the FAE shares with the SSB the assumption that attributions have implications for the actor (e.g., those doing good deeds are judged to be good people). However, it does not share the assumption that attributions have implications for the attribution-maker. In the SSB, these assumptions are one and the same because the actor and the attribution-maker are one and the same. The FAE, however, does not posit that attributions for an actor's behavior have

implications for the observer, because the actor's behavior is likely to be less consequential to the observer than it is to the actor himself. For instance, if Jill tells Kevin that her boyfriend forgot her birthday, the question of whether or not that omission was intentional and controllable is of much less consequence to Kevin than it is to Jill, since Kevin is not a part of the relationship and the omission was not directed at him. Because observers are relatively free from having to consider personal implications when formulating attributions, the FAE predicts that observers are not motivated to engage in the more cognitively complex task of seeking external causes for others' behaviors (e.g., trying to figure out what might have caused Jill's boyfriend to forget her birthday). Rather, as cognitive misers, observers take the less taxing route and attribute the observed behaviors to the more evident and enduring cause of actors' dispositions (see Gilbert & Osborne, 1989). As Swann (1984) suggested, nonparticipant observers may actually orient toward actors more as objects than as people.

Empirical research on the FAE has shown that the tendency to neglect situational, external influences on behavior is pervasive. In a unique experiment, Bierbraur (1973) asked participants to predict the rates of disobedience to being asked to administer shock to the learner in the classic Milgram (1963) experiment. As predicted, Bierbraur's participants consistently underestimated the effect of systematic influences (experimental procedures and instructions) in producing obedience to authority in the Milgram experiment and consistently overestimated the influence of unique personality factors in determining whether Milgram's subjects would comply with the experimenter's direction to administer shocks. Moreover, participants persisted in such attributional patterns even after witnessing a faithful reenactment of the experiment. Other experiments have found that the FAE is so strong that people underestimate situational influences on behavior even when they know the actors being observed have no choice about their behavior (Jones & Harris, 1967; Ross, 1977).

#### *Applying the Self-Serving Bias to Observed Communication Behaviors*

Although the SSB is designed to predict actors' attributions for their own behavior, the present paper proposes that the theoretic principles of the SSB can explain and predict observers' attributions about actors' behaviors *when those behaviors have implications for the observer*. Proposed herein is that, contrary to the assumption of the FAE, actors' behaviors sometimes do have personal implications for observers, and under such conditions, attributions for those behaviors also have implications for the observers. For instance, when an executive winks at an applicant during a job interview, the applicant can either make an internal, controllable attribution (e.g., she winked because she likes me) or an external, uncontrollable attribution (e.g., she had something in her eye). Certainly, the applicant would be expected to feel more liked and more likely to get the job if making the former attribution

than the latter, which may in turn affect feelings about the executive and about the prospect of working for her.

Thus, if one follows the principles of the SSB, that actors make the most positive attributions for their own behaviors because those attributions have personal implications for them, then it is a minor theoretic jump to the assertion that others for whom the behavior has implications are also motivated to make the most favorable attributions possible. Such reasoning assumes that people have a self-protection motivation, a presumption shared by politeness theory (Brown & Levinson, 1987), and that this motivation influences inference-making in such a way as to produce inferences that are consistent with one's self-interest (see Smith, 1995). When others' behaviors have no implications for the self (or negligible implications), however, the prediction of the FAE should apply.

Robust evidence in support of this theoretic extension can be found in the literature on attribution-making in marriage. A large body of empirical work has reported relationships between attributional processing and marital satisfaction, such that people in satisfying marriages make "relationship enhancing" attributions for their spouses' behaviors, attributing positive behaviors to internal, controllable causes and negative behaviors to external, uncontrollable ones. People in dissatisfying marriages, however, have been shown to make "distress maintaining" attributions, whereby they attribute their spouses' positive behaviors to external, uncontrollable causes and negative behaviors to internal, controllable ones (for review, see Bradbury & Fincham, 1990). Although this research has not been conducted specifically to test the SSB or its principles, the theoretic extension of the SSB proposed herein can account for these findings. Because a spouse's behaviors can certainly be seen as having personal implications for the self, the self is motivated to formulate attributions that are consistent with one's own cognitive— affective state. For instance, a satisfied wife will make an internal attribution for her husband's positive behavior because it is consistent with her satisfaction in the marriage and it provides her the best hope that the marriage will continue. Likewise, a dissatisfied husband will make an internal attribution for his wife's negative behavior because it vindicates his dissatisfaction with the marriage.

Besides accounting for prior findings in established relationships, an extended SSB should also be able to explain behaviors in less-established relationships, for which a satisfaction level cannot readily be assessed, such as between strangers meeting for the first time or acquaintances engaged in perfunctory social interaction. The present study applies the SSB to this task.

### *The Present Study*

The present experiment tests the ability of the SSB to predict attribution-making about others' behaviors when those behaviors have

implications for the self, while simultaneously testing the FAE's predictions regarding attribution-making about others' behaviors when those behaviors do not have implications for the self. The specific behaviors examined herein are those associated with the nonverbal expression of liking and disliking. These behaviors were selected because they are relatively common in interpersonal interactions in a number of relational and situational contexts (Floyd and Morman, 1999), because the desire to be liked is among humans' most elemental desires (Maslow, 1970), and because expressions of liking and disliking therefore have direct evaluative implications for receivers. Although liking and disliking are often communicated verbally, the nonverbal behaviors used to make such expressions are often more provocative than the verbal. For one, they may be enacted with less conscious control than verbal behaviors and may therefore better reflect the emotional status of the communicator (Davitz, 1969). They may also entail less risk for the communicator than verbal expressions of liking because their intended meanings may be easier to deny if the sentiment is not reciprocated. For example, if a man communicates liking to a woman by increasing touch, gaze, and proximity but the behaviors are not reciprocated, it may be easier for both to attribute the behaviors to something else than if the man had communicated his liking verbally (see Booth-Butterfield & Trotta, 1994). As a result, nonverbal behaviors may be the preferred means for expressing liking, especially in less-close relationships, because they expose the encoder to less risk of face threat.

One way to operationalize the difference between attribution-makers who should or should not be personally implicated by such behaviors is to compare the attributions made by participant receivers (i.e., those who are interacting with the actor and who are receiving such expressions) and third-party, nonparticipant observers (i.e., those who are witnessing the interaction but are not participating in it). Several scholars have investigated and theorized about the differences in receivers' and observers' reactions to behavior. While receivers' and observers' perceptions are expected to covary (Burgoon & Newton, 1991), a number of studies have documented a "positivity bias" whereby participant receivers judge an actor's behavior more favorably than do observers (e.g., Kellermann, 1989; Manusov, 1993; Street, Mulac, & Wiemann, 1988). This effect is thought to reflect the difference in receivers' and observers' perceptual stance (see Kruglanski, 1989), in which receivers are subjected to the implications of actors' behaviors while observers are not. Thus, comparing receivers' and observers' attributions was seen as a candidate operationism for a test of the extended SSB. Specific hypotheses regarding participants' and nonparticipant observers' attributions for nonverbal expressions of liking and disliking are explicated subsequently.

### *Hypotheses*

Among the most robust findings in attribution research is that causal attributions are more likely for negative than positive behaviors

(e.g., Camper, Jacobson, Holtzworth-Munroe, & Schmalzing, 1988; Jacobson, Waldron, & Moore, 1980; Manusov, Floyd, & Kerssen-Griep, 1997; Wong & Weiner, 1981). This finding comports with the SSB, given that negative behavior should embody greater face threat than positive behavior and may therefore comprise more evident relational implications for receivers. Therefore, for participant receivers (hereafter referred to as participants), it may be more important to formulate attributions for negative behaviors as a way of managing these potential face threats. Third-party, nonparticipant observers (hereafter referred to as observers), whose face needs should not be threatened by an actor's behaviors, should not differ in their instances of attribution-making for positive or negative behaviors. Thus, with respect to nonverbal expressions of liking and disliking, the following is hypothesized:

- H1 Participants are more likely to make attributions for expressions of disliking than for expressions of liking

The FAE predicts a systematic tendency among attribution-makers to favor dispositional attributions for others' behaviors—that is, to presume that observed behaviors reflect the disposition of the actor (e.g., Jones, 1979; Ross, 1977). Presumably, this tendency should be pronounced when actors and attribution-makers are strangers, since attribution-makers cannot generate attributions based on personal, idiosyncratic knowledge of actors' behavioral tendencies. The SSB qualifies this prediction, however, positing that people for whom the behaviors have personal implications will make attributions that cast those implications in the most favorable way. Thus, participants who are receivers of the behaviors incorporate the personal implications of those behaviors into their attributional processing, while observers do not. This should be true even when actors and participants are strangers; for instance, receiving an expression of liking from a stranger can affect how participants feel about themselves and can also influence their desire to develop a relationship with the actor. Observers, since they should not be affected by such implications, should favor dispositional attributions as the FAE predicts.

Several testable hypotheses can be derived from this extension of the SSB. First, because participants are subject to personal implications that observers are not, they should be more motivated to formulate causal attributions for actors' behaviors in the first place. Thus, it is hypothesized:

- H2 Participants are more likely than observers to make attributions for nonverbal expressions of liking and disliking

Participants and observers should also differ in the nature of their attributions. In the case of disliking behavior, the SSB and the FAE make divergent predictions. Behaviors that express disliking signal decreased interest in or value for participant receivers and should attenuate their desire for future interaction with the actor. The SSB



predicts that, as a face-preserving tactic, participants should be motivated to find external (situational, unstable, uncontrollable) attributions to "explain away" the disliking behavior. Observers, since they should not be subject to the personal implications of disliking behavior, should be more likely to make internal (dispositional, stable, controllable) attributions, as the FAE predicts. Thus, it is hypothesized:

H3: Observers' attributions for expressions of disliking are more internal and controllable than are participants' attributions

With respect to expressions of liking, the FAE and the SSB lead to parallel predictions: that observers and participants make internal, controllable attributions. The SSB predicts that participants are motivated to find internal, controllable attributions for liking behavior, since the behavior should cause participants to feel valued and affirmed. Thus, for liking behavior, the difference should not be between observers and participants; rather, it should be between participants' attributions for liking behavior and their attributions for disliking behavior. Specifically:

H4: Participants' attributions are more internal and controllable for expressions of liking than for expressions of disliking

## Method

### *Subjects and Confederates*

Subjects ( $N = 192$ ) were equal numbers of men and women who served either as participants (Ps) in an experimental interaction ( $n = 96$ ) or as observers (Os) of it ( $n = 96$ ). They were recruited from communication and business administration courses at a large southwest university and a medium-sized midwest university for "a study of how we form first impressions of people." Ps ranged in age from 18 to 34 years ( $M = 21.07$  years,  $SD = 2.81$ ); Os ranged in age from 18 to 52 years ( $M = 22.51$ ,  $SD = 7.31$ ). For the experimental interaction, Ps were each paired with a trained confederate of their same sex. An O of the same sex was later assigned to observe each interaction on videotape. Ps and Os received extra course credit in exchange for their participation.

Confederates were two male and two female undergraduates who were selected for their ability to perform the behavior manipulations in a natural, believable manner while conversing with strangers. The confederates were all between the ages of 20 and 23 during the study, ages similar to those of the modal participant and observer. Confederates received extensive individual and group training on the conduct of their manipulations, practicing with the researcher and with each other in the laboratory setting and reviewing videotapes of other experiments employing similar manipulations. Specifically, they were instructed on the nonverbal behaviors to modify when enacting the liking and disliking manipulations and were trained in keeping their

verbal responses consistent across conversations and amongst themselves.

### *Procedure*

The experimental interactions occurred at a communication research laboratory, a converted apartment complex that includes a living room with comfortable swivel chairs, lavalier microphones, a coffee table, and a bookshelf. Ps signed up for one-hour sessions. During each session, a participant and one of the confederates arrived at the laboratory at approximately the same time, to give the impression that the confederate was simply another student who had also signed up for that time. Both were initially seated in the waiting area and were told that the purpose of the study was to "look at how we interact with others when we meet them for the first time, and how we form first impressions of people." To ensure that they were strangers, the researcher inquired as to whether the participant and confederate already knew each other.

The researcher then informed the participant and confederate that, as a way of examining how they interact and form impressions of each other, they would be engaging in a "get to know each other" exercise that would involve a short conversation. They were also informed that their interaction would be video- and audio-taped from behind a one-way window, and they completed the appropriate consent forms. They were then seated in the interaction area of the facility, attached the lavalier microphones to their shirts, and were told that the purpose of their conversation was for them to get to know each other. To aid them in facilitating conversation, the researcher provided them with a list of five questions and asked them to discuss their opinions and responses to each topic.<sup>2</sup> The topics were presented in a cyclical, counterbalanced order across conditions. The researcher signaled the participant and confederate to begin their interaction. After they finished discussing the fifth topic, they were stopped and separated to complete postinteraction measures. Participants were then thoroughly debriefed and excused.

Observers were recruited under the same auspices as participants; however, they were told they would be watching a videotape of an interaction rather than participating in the interaction themselves. Os reported to the laboratory facility and were seated at a TV/VCR station equipped with headphones. Each O watched an interaction involving a participant and confederate of his or her same sex. Os watched their assigned interaction from start to finish, completed postmeasures, and were thoroughly debriefed and excused.

### *Behavior Manipulation*

During their interactions, confederates behaved either as though they liked Ps ("liking condition") or disliked Ps ("disliking condition").

The study used a multi-cue manipulation, wherein confederates were instructed to maintain high or low levels of multiple designated nonverbal behaviors (see Guerrero & Burgoon, 1996). Specifically, confederates in the liking condition were trained to smile a great deal, to maintain moderate but consistent gaze, to sit close to Ps, to lean forward toward Ps, and to match Ps' posture. When enacting the disliking condition, confederates were given the opposite instructions: to avoid smiling and eye contact, to sit far away from Ps, to lean away from Ps, and to avoid matching Ps' posture. These nonverbal behaviors are those commonly used to communicate liking and affection, or the lack thereof (Burgoon & Le Poire, 1999; Palmer & Simmons, 1995).

### *Attribution Measures*

Attributions for confederate's behavior were assessed using an instrument adapted from Manusov, Floyd et al. (1997). Ps and Os were told that the experimenters wanted to be sure they had recorded a relatively normal interaction between the participant and confederate, and so they wanted to know if there were any behaviors that stood out to P or O as abnormal or out-of-the-ordinary. Ps and Os were then asked to respond to a series of yes/no and open-ended questions. To be sure that the behaviors noticed were consistent with the manipulated behaviors and that they were the cues that instigated the attributions. Ps were first asked: "Did any of your partner's behaviors stand out to you during the videotaping? If yes, please describe the behaviors you noticed and approximately when you noticed them." If Ps and Os answered yes to the first question, they were asked to respond to two additional open-ended questions: (1) how would you explain your partner's behavior(s); and (2) what did the behavior(s) mean to you; what was communicated? Os completed these same questions with reference to the confederate. Open-ended questions were used instead of attribution scales because the former are more likely to be tied to the specific behaviors investigated in the study rather than the result of general feelings toward a partner (Bradbury & Fincham, 1990).

Two trained coders who were blind to the hypotheses assessed the attribution questionnaires for evidence of attribution-making. First, coders reviewed Ps' and Os' questionnaires for the valence of the behaviors noticed and to assess if the behaviors were consistent with the manipulations (for instance, attributions about what a confederate was wearing would not have been coded, since confederates' attire was not manipulated). If they were, the coders reviewed the questions about the meaning and explanation of confederates' behaviors (anything that indicated a cause of and/or responsibility for the behaviors).

When an attribution was provided, coders judged it on six 7-point scales corresponding to the causal and responsibility dimensions used in previous attribution research (e.g., Bradbury & Fincham, 1992; Karney, Bradbury, Fincham, & Sullivan, 1994; Manusov, 1990; Manusov,

Floyd et al., 1997; Weiner, 1985). The causal dimensions were: external (1) to internal (7); unstable (1) to stable (7); and specific (1) to global (7). The responsibility dimensions were: uncontrollable (1) to controllable (7); unintentional (1) to intentional (7); and not personally responsible (1) to personally responsible (7). Overall scores for the causality and responsibility reflect the aggregate of the three items in each. Participants could therefore have no scores (if the behaviors noticed were inconsistent with the manipulation, if they did not notice the cues, or if they did not provide attributions for the behaviors), or a set of scores reflecting attributions for the manipulation-consistent behaviors noticed. Interitem reliabilities for participants' attributions were .57 for causality and .99 for responsibility; for observers' attributions they were .59 for causality and .99 for responsibility. Coders received approximately four hours of individual and collective training and were paid for their work. Each coder rated all of the questionnaires. The coders consistently agreed as to whether attributional statements were evident in Ps' and Os' responses (Cohen's  $\kappa = 1.0$ ), whether the behaviors counted as nonverbal and should therefore be rated ( $\kappa = 1.0$ ), and whether the behaviors being described were positive or negative ( $\kappa = 1.0$ ). Intercoder reliabilities, based on Ebel's intraclass correlation (Guilford, 1970), were .88 for causality and .93 for responsibility.

### *Manipulation Checks*

Several measures served to check the manipulations. First, to ensure that the confederate, participant, and observer in each experimental triad were strangers, Ps were asked "how well do you know your partner [the confederate], if at all?" Responses were offered on a seven-point scale anchored at 1 with "not at all" and at 7 with "very well." Os were asked the same question about both the confederate and the participant.

To check the behavior manipulation, Ps and Os were asked to indicate on a three-item measure how much they thought the confederate liked P during the interaction. The items, which were scored on a seven-point scale, were: "My partner acted as if he or she liked me," "My partner made it clear that he or she was not interested in me" (reverse-scored), and "My partner seemed to get along with me well" (coefficient alpha = .74 for participants and .71 for observers). Os' items used the words "this person" in place of "my partner." Finally, the confederates' nonverbal behaviors were coded at eight points in each interaction, during the first and second thirty seconds of each of the first four questions. Coders were four advanced undergraduates who received approximately eight hours of training and were paid for their work. The specific behaviors coded were smiling, gaze, forward lean, postural matching, and proximity (intercoder reliability = .74).

## Results

*Manipulation Checks*

Ps' mean preinteraction familiarity score was 1.05 ( $SD = 0.41$ ). Os' preinteraction familiarity score for Ps was 1.00 ( $SD = 0.0$ ) and their preinteraction familiarity score for Cs was 1.01 ( $SD = .12$ ). These means suggest that Ps, Cs, and Os were all strangers at the start of the experiment.

Ps in the high liking condition reported that Cs liked them more ( $M = 5.71$ ,  $SD = 0.81$ ) than did those in the low liking condition ( $M = 4.05$ ,  $SD = 1.20$ ),  $t(94) = 8.73$ ,  $p < .001$ . Similarly, Os in the high liking condition reported that Cs liked Ps more ( $M = 5.10$ ,  $SD = 1.03$ ) than in the low liking condition ( $M = 3.52$ ,  $SD = 1.05$ ),  $t(94) = 6.36$ ,  $p < .001$ .

Confederates' coded behaviors were compared by behavior manipulation. These comparisons, provided in Table 1, indicate manipulation-consistent differences on each of the behaviors coded. (Initial analyses that included gender as a between-subjects effect and confederate as a random effect demonstrated nonsignificant effects of these variables.)

*Initial Data Reduction*

Two principal-components factor analyses with oblique rotation were used to ascertain the dimensionality of the attribution measures. Oblique rotation was used because attribution theory treats causality and responsibility as nonorthogonal dimensions (see Bradbury & Fincham, 1992). Separate analyses were conducted for Ps' attribution scores and Os' attribution scores. Both analyses produced the expected two-factor solution, with solid loadings, no complex items, and acceptable internal reliability coefficients (reported above). In both cases, the items corresponding to causality (internal—external, stable—unstable, specific—global) constituted one factor and the items corresponding to responsibility (controllable—uncontrollable, intentional—uninten-

TABLE 1  
Manipulation Checks Comparing Confederates' Coded Nonverbal Behaviors by Liking Condition

Behavior	Hi <i>M</i>	Hi <i>SD</i>	Lo <i>M</i>	Lo <i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	$\eta^2$
Smiling	4.67	1.34	1.44	0.74	13.72	94	< .001	.82
Eye contact	6.06	1.14	1.83	1.02	21.05	94	< .001	.80
Proximity	4.23	0.91	3.56	0.78	4.28	94	< .001	.14
Forward lean	5.12	0.67	3.91	0.63	10.84	94	< .001	.51
Postural matching	4.44	1.31	3.32	1.42	4.43	94	< .001	.15

Note. Hi = high liking condition; Lo = low liking condition.

tional, personally responsible—not personally responsible) constituted the other factor.<sup>3</sup>

### Hypotheses

The first hypothesis addressed participants' tendencies toward attribution-making. The hypothesis was that participants are more likely to make attributions for expressions of disliking than for expressions of liking. Out of 96 participants, 61 made attributions: 25 for liking behavior and 36 for disliking behavior. This difference is significant,  $\chi^2 = 4.20$ ,  $df = 1$ ,  $p < .05$ . The first hypothesis is supported. Out of 96 observers, 45 made attributions: 22 for liking behavior and 23 for disliking behavior. This difference is nonsignificant,  $\chi^2 < 1$ .

The second hypothesis predicted that participants are more likely than observers to make attributions for nonverbal expressions of liking and disliking. The percentage of participants making attributions was 64%, while 47% of observers made attributions. This difference is significant,  $z = 1.99$ ,  $p < .05$ . The second hypothesis is supported.

The third hypothesis predicted that observers' attributions for expressions of disliking are more internal and controllable than are participants' attributions. Due to the directional nature of the hypothesis, participants' and observers' scores on causality and responsibility for disliking behavior were compared with planned contrasts, with higher scores indicating internal causes and higher controllability. For causality, observers' mean score ( $M = 4.93$ ,  $SD = 1.50$ ) exceeded that of participants ( $M = 3.06$ ,  $SD = 1.91$ ),  $t(18) = 3.56$ ,  $p = .001$ ,  $\eta^2 = .40$ . For responsibility, observers' mean score ( $M = 4.31$ ,  $SD = 2.52$ ) again exceeded that of participants ( $M = 2.76$ ,  $SD = 2.39$ ),  $t(18) = 3.76$ ,  $p = .001$ ,  $\eta^2 = .46$ . The third hypothesis is supported. Contrasts revealed nonsignificant differences between observers and participants in their responses to liking behavior.

The fourth hypothesis predicted that participants' attributions are more internal and controllable for expressions of liking than for expressions of disliking. For causality, participants in the liking condition had a higher mean score ( $M = 5.40$ ,  $SD = 2.16$ ) than did those in the disliking condition ( $M = 3.06$ ,  $SD = 1.91$ ),  $t(60) = 4.15$ ,  $p < .001$ ,  $\eta^2 = .25$ . For responsibility, participants' mean score was again higher for liking behavior ( $M = 4.48$ ,  $SD = 2.41$ ) than for disliking behavior ( $M = 2.76$ ,  $SD = 2.39$ ),  $t(59) = 2.54$ ,  $p = .007$ ,  $\eta^2 = .11$ . Contrasts indicated that observers' causality and responsibility scores did not differ between the liking and disliking conditions. The fourth hypothesis is supported.

### Discussion

Although the self-serving bias was originally proffered to explain and predict individuals' attributions for their own behaviors, there is

reason to believe that its theoretic principles could be extended to account for individuals' attributions for others' behaviors when those behaviors have personal implications for the self. The present experiment, involving nonverbal expressions of liking and disliking among strangers, provided support for an extended version of the SSB and contradicted the prediction of the FAE for participant receivers.

### *The Extended Self-Serving Bias*

If the SSB is correct in its assumption that people formulate attributions for their own behaviors that best preserve their positive face needs, then an extended SSB would posit that the same motivation for face preservation guides attributional processing in response to others' behaviors. When others' behaviors carry implications for the self, then the self is motivated to formulate attributions that cast those implications in the most positive manner. When others' behaviors carry no implications for the self, then as the fundamental attribution error suggests, the self should be motivated to conserve cognitive energy and make a dispositional attribution.

Previous research has repeatedly found that negative behavior is more likely to instigate attributional processing than is positive behavior, ostensibly because negative behavior is more likely to be personally threatening. The reasoning behind the SSB was used to advance this same prediction for expressions of liking and disliking, but only for participant receivers who should be subject to the implications of such behavior. Nonparticipant observers, it was reasoned, should not differ in their attributional processing of liking and disliking behavior because such behavior carries no implications for them. The results were consistent with the extended SSB in these regards. Further supportive of the extended SSB was the finding that participants more often made attributions than did observers. This follows the deduction that because actors' behaviors carry more implications for participants, participants are more motivated to formulate causal attributions for the behaviors as way of managing those implications.

According to the extended SSB, differences in the personal implications of behaviors should translate into differences in the nature of the attributions made for them. Specifically, the expression of disliking was hypothesized to invite more external, uncontrollable attributions from participants (who must attend to the implications of the expression) than observers (who need not). This prediction was supported both in terms of judgments about causality and judgments about responsibility. Finally, participants were shown to make more internal and controllable attributions for expressions of liking than for expressions of disliking. This is consistent with the extended SSB's reasoning that participants want expressions of liking to be reflective of actors' dispositions because that should make participants feel more valued and affirmed. Expressions of disliking should be attributed to more external

causes because they relieve participants from the obligation of attending to the implication that the actors genuinely dislike them. Again, this prediction received support both in terms of causality and responsibility judgments.

### *Implications for Further Research*

In sum, these results support a theoretically extended version of the self-serving bias of attributional processing. As noted above, this extension of the SSB can account for the common finding that people in satisfying marriages make internal attributions for spouses' positive behaviors and external attributions for spouses' negative behaviors, while people in dissatisfying marriages demonstrate the opposite pattern. Following the same chain of logic, the extended SSB should be able to account for similar attributional processing in other relationship types that vary in satisfaction level. For instance, managers unhappy with a subordinate's performance may routinely attribute the subordinate's failures to internal, stable causes ("he didn't finish that report because he was probably goofing off all weekend"), while successes may elicit more situational attributions ("she must have had someone helping her if she finished that report on time").

Such attributional patterns may have important implications for subsequent cognition and behavior in such relationships, affecting a superior's performance evaluation of a subordinate, a teacher's grading of a student, or an individual's response to a spouse's behaviors. As Manusov, Trees et al. (1998) noted, few studies have tested the implicit links between attributions and subsequent evaluations. Their investigation, however, found that strangers' attributions of failure events to unstable causes (i.e., states rather than traits) were seen as more appropriate, effective, and coherent than were attributions of failure events to stable causes. Similarly, Floyd and Voloudakis (1999b) found that the nature of participants' attributions for their friends' affectionate behaviors predicted their evaluation of such behaviors and their assessments of their friends' credibility. To the extent that these findings suggest that certain attributions for others' behaviors are associated with more positive perceptual and evaluative states on the part of the attribution-maker, they can be seen as following from the principles of the extended SSB. Further tests of this perspective might apply it to the task of predicting behavioral as well as cognitive correlates of particular attribution-making patterns.

An important issue for future tests of an extended SSB centers on the operationism of personal implications. Comparing the perspectives of participant receivers of a behavior and nonparticipant observers of it is one way to operationalize high-implication and low-implication groups, but it is not the only way. There may be important within-groups variation in the extent to which behaviors carry personal implications that may be a function of the type of behavior itself, the



nature of the actor-receiver-observer relationship, or both. The present experiment used a pair of behaviors, the expression of liking and disliking, that are highly likely to have personal implications for receivers because the desire to be liked is so fundamental to the human experience (Maslow, 1970). Other behaviors, however, may be more benign, even for receivers (e.g., speaking loudly versus quietly). Moreover, particular behaviors may carry more salient implications for receivers when the actor is a friend, a relative, or a superior of the receiver than when the actor and receiver are strangers. Likewise, nonparticipant observers might perceive that an actor's behavior has implications for them if they anticipate a future interaction with the actor than if they believe they will never meet the actor. These possibilities provide important avenues for further tests of an extended self-serving bias.

A second issue of importance concerns the public or private nature of the behaviors in question and of the attributions made for them. In the present experiment, as well as in most research on the SSB, both the target behavior (whether a partner's behavior or one's own task performance) and participants' attributions for it were observed by the experimenters and/or by others (i.e., were public). As Bradley (1978) noted, this type of experimental design may maximize participants' concerns about evaluations of performance, increasing their tendency to make self-enhancing attributions. Although researchers have found that the public or private nature of the target behavior affects the types of attributions made for it, fewer (e.g., Manusov, Trees et al., 1998) have acknowledged that the attributions themselves may differ according to whether they are public or private. Bradley (1978) argued that, to the extent that attributions carry implications for the attribution-maker, public attributions can be viewed as strategic self-presentations (Schlenker, 1975) and may be mediated by a desire to gain or maintain a positive public image. Future fleshing out of the extended SSB should therefore include examination of individuals' private attributions for others' implication-producing behaviors.<sup>4</sup>

The sample consisted predominantly of undergraduate students in their early to mid-20s, which may constrain the generalizability of the results. Examining samples of differing age groups may indicate whether age plays a role in how relational behavior is interpreted and to what it is attributed. Moreover, the interitem reliabilities for participants' and observers' causality scales were low (.57 and .59, respectively), and neither reliability score could be improved by dropping items. However, it must be recalled that low reliability only attenuates statistical power. The fact that tests with both scales produced significant hypothesis-consistent results despite their modest reliability testifies to the magnitude of the effects being examined.

In conclusion, the principles of the self-serving bias can be extended to account not only for attributions about one's own behavior, but

attributions about others' behavior when the behavior has implications for the attribution-maker. Others' behaviors that are not implication-producing should elicit mostly internal, controllable attributions as the fundamental attribution error predicts. Thus, not only has the present conceptualization extended the SSB but it has also qualified the prediction of the FAE, suggesting that future tests of the FAE examine such implications as a potential mediating variable for observers' attributions.

#### ENDNOTES

1. In this discussion, I will use the term "actor" to refer to the person enacting the behavior that instigates an attribution and the term "observer" to refer to a person who witnesses the behavior. Later, I will distinguish between two types of observers: "participant receivers," to whom the behavior is directed, and "nonparticipant observers," who simply witness the behavior but are not recipients of it.

2. The topics were "Tell about the most significant person in your life right now," "Describe an embarrassing situation or incident from your childhood," "What do you think makes a successful romantic relationship," "What do you see your life being like ten years from now," and "Describe the most unpleasant job you have ever had to do."

3. Factor loadings are available from the author.

4. This, of course, raises the tricky methodological issue of how to elicit private attributions in such a way as to preserve their private nature but also make them known to the experimenter. According to Bradley's (1978) argument, if participants expect that an experimenter will see the report of their attributions, then those attributions are considered public, not private (even if participants are assured their attributions will not be seen by co-participants), and are therefore subjected to self-presentation concerns. How to observe attributions that are not intended by the attribution-maker to be observed is the methodological quandary this issue poses.

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