Journal of Personality and Social Psychology
1996, Vol. 70, No. 4, 691-700

0022-3514/96/$3.00

Misanthropic Person Memory

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Three experiments examined memory for behaviors associated with attributional information. A baseline established in Experiment 1, using behaviors unaccompanied by attributions, indicated that expectancy-inconsistent behaviors were better recalled than consistent ones. Experiment 2 linked these same behaviors to dispositional or situational attributions. After reconceptualizing the results, it was shown that negative dispositionally attributed behaviors and positive situationally attributed behaviors were best recalled, suggesting that there is a negativity bias in person memory for behaviors that are accompanied by attributions. Experiment 3, using a different procedure, served as a replication of this misanthropic memory effect and demonstrated that the effect was only slightly altered by reducing the processing time allocated for this task. The findings were discussed in terms of their implications for expectancy-driven information processing and also with regard to the types of impressions people may form from attributed behavioral information.

> The evil that men do lives after them; the good is oft interred with their bones.—(Mark Antony in Shakespeare's *Julius Caesar*, Act III, Scene ii)

Research in person memory suggests that our expectancies influence what we remember about other people. In general, behaviors that are inconsistent with our expectancies are better remembered than consistent behaviors (Hastie, 1981; Hastie & Kumar, 1979; Rojahn & Pettigrew, 1992; Srull, 1981; Srull, Lichtenstein, & Rothbart, 1985; Stangor & McMillan, 1992; Stern, Marrs, Millar, & Cole, 1984). Explanations for this person memory incongruity effect postulate either a comparison or an attributional mechanism. According to the first point of view, the incongruity effect results from a comparison process that is elicited by processing expectancy-inconsistent behaviors. In trying to understand an inconsistent behavior, people compare it with other consistent, as well as inconsistent, behaviors that are stored in memory about the target person (O'Sullivan & Durso, 1984; Sherman & Hamilton, 1994; Srull, 1981; Srull et al., 1985; Srull & Wyer, 1989; Wyer & Srull, 1989). The second approach posits that expectancy-inconsistent behaviors lead to attributional activity to explain the unexpected behavior (Hamilton, 1988; Hamilton, Grubb, Acorn, Trolier, & Carpenter, 1990; Hastie, 1984; Hastie & Kumar, 1979). Both explanations for the incongruity effect argue that expectancy-inconsistent information spends more time in working memory than consistent information, and during its longer residence there, becomes associated with related information that allows it to be more easily retrieved later.

In recent years, various factors have been shown to influence whether expectancy-inconsistent information is better remembered than consistent information (see Rojahn & Pettigrew, 1992; Stangor & McMillan, 1992, for recent meta-analyses). For example, weak expectancies promote the incongruity effect in memory, whereas strong expectancies do not (Belmore, 1987; Stangor & Ruble, 1989; Ybarra, 1992). Tasks that are complex, whether the complexity results from reduced processing times or cognitive strain, also attenuate the incongruity affect (Bargh & Thein, 1985; Srull, 1981, Experiment 4; Stangor & Duan, 1991). The target of the impression also has an impact on the recall of expectancy-consistent and -inconsistent behavioral information; if the target forms a single psychological entity (i.e., the target is an individual or a meaningful group), the incongruity effect is more likely to occur than if the target does not form a psychological entity (i.e., a nonmeaningful group) (Srull, 1981, Experiment 1; Srull et al., 1985, Experiment 7; Stern et al., 1984; Study 2; Ybarra & Stephan, 1995). Furthermore, the basis for the expectancies concerning the impression target also affects the pattern of recall. Complex expectancies, such as those based on three traits, produce equivalent recall of expectancy-consistent and -inconsistent behaviors, but simpler expectancies produce an incongruity effect (Hamilton, Driscoll, & Worth, 1989, Experiments 1 and 2, respectively). Finally, the affective state of the perceiver can also influence the recall of expectancy-consistent and -inconsistent information. For example, Ybarra and Stephan (1995; see also Asuncion & Lam, 1995) found that positive moods produce a congruity effect in recall, but a neutral mood produces an incongruity effect.

Another variable that appears to be important in determining person memory concerns whether the behavioral information is accompanied by attributions (Crocker, Hannah, & Weber, 1983). A great deal of information that we receive about

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We would like to thank Lorraine Armendarez and Paul Vonnahme for helping us to collect the data, and we thank Al Moreno for helping us to set up the equipment for Experiment 3. We would also like to thank Reid Hastie for providing us with stimulus materials. Finally, we thank John Skowronski and David Trafimow for their helpful comments on an earlier version of the article.

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others' behaviors also includes attributions for their behaviors. For example, in everyday conversation, a friend is more likely to tell you "I am not going out because I have to study for a test" than "I am not going out." The latter statement is not only uninformative, but also impolite, a violation of two norms that tend to guide social communication (Grice, 1975). Attributions are also typically available when others try to influence the impression we hold of a third party ("Bob was rude to the waitress because he has been under a lot of stress lately"). Attributions may also be communicated when several people are dependent on another for desired outcomes ("Our boss, the jerk, didn't get us pay raises because she only cares about herself").

What determines memory for attributed behavioral information? Do expectancy consistency and inconsistency still matter? As described earlier, the person memory incongruity effect that is typically found for unattributed behaviors is thought to occur because expectancy-inconsistent behaviors elicit more attributional processing than consistent behaviors (Hastie, 1984). However, when attributional information is available for a behavior, there is little reason for people to engage in attributional processing. Therefore, the expectancy consistency or inconsistency of behaviors may play only a minimal role in determining how attributed behavioral information is processed. For attributed behaviors, the focus may shift from the behavior to the attribution itself.

A logical extension of the person memory incongruity effect suggests that incongruity will occur at the level of the attributions available for the behaviors. Available attributions can be either consistent or inconsistent with our general expectancies concerning the causes of behavior. For instance, people typically attribute expectancy-inconsistent behaviors to situational causes and expectancy-consistent behaviors to dispositional causes (Bell, Wicklund, Manko, & Larkin, 1976; Crocker et al., 1983, Study 3; Hayden & Mischel, 1976; Kulik, 1983; Pyszczynski & Greenberg, 1981; Regan, Straus, & Fazio, 1974). It may be that people are released from carefully processing behaviors when the attributions that are explicitly provided are in accord with the attributions they would normally expect for these behaviors. However, when the attributions that are explicitly provided and the normative attributions do not jibe, additional processing of the information may occur, which should lead to better recall. For instance, a situational attribution would be inconsistent with the typical attribution for an expectancy-consistent behavior (i.e., a dispositional attribution). Such behaviors and their unexpected attributions may be better recalled than behaviors associated with expected attributions because the attributions given for the former behaviors contradict the attributions people would normally expect for those types of behaviors. This attributional unexpectedness hypothesis predicts that expectancy-consistent behaviors will be well recalled when they are situationally attributed and expectancy-inconsistent behaviors will be well recalled when they are dispositionally attributed. Expectancy-consistent behaviors that are dispositionally attributed and expectancy-inconsistent behaviors that are situationally attributed will not be remembered as well. We are aware of only one set of studies that provides a test of this hypothesis (Crocker et al., 1983).

Crocker et al. (1983) conducted a set of studies that addressed the issue of memory for behaviors that are explicitly linked to attributions. These investigators sought to determine why expectancy-inconsistent behaviors, even though they are often well recalled, appear not to have an impact on impressions (e.g., N. H. Anderson, 1965; Asch, 1946; Hendrick & Costantini, 1979; Schneider, Hastorf, & Ellsworth, 1979). They reasoned that the attributions people typically generate for expectancy-inconsistent behaviors (i.e., situational attributions) allow such behaviors to be dismissed as unrepresentative. In their first experiment, Crocker et al. attempted to prevent participants from relying on a personally generated attribution for an expectancy-consistent and -inconsistent behavior by providing them with a preformulated attribution for the behavior of a target person. Participants in one condition were provided with an explicit dispositional attribution for the target's expectancy-inconsistent behavior, whereas participants in another condition were provided with an explicit situational attribution for the target's behavior. In addition, participants who read about an expectancy-consistent behavior received either a dispositional attribution for the behavior or a situational attribution.

The recall results obtained by Crocker et al. (1983) indicated that the expectancy-inconsistent behavior was better recalled when attributed dispositionally than when attributed situationally. In addition, the expectancy-consistent behavior was better recalled when it was situationally than dispositionally attributed, but this difference was not significant. Thus, the results of their first experiment suggest that behaviors that are attributionally unexpected (inconsistent with the expected attribution) are better recalled than those that are attributionally expected. In their second experiment (Crocker et al., 1983), the recall pattern from Experiment 1 was not replicated. Specifically, the expectancy-inconsistent behavior that was dispositionally attributed was not better recalled than the situationally attributed inconsistent behavior, as it had been in Experiment 1. However, a significant pattern emerged for consistent behaviors. The findings indicated that when the behavior was consistent with the trait "friendly," it was better recalled when situationally than dispositionally attributed. In contrast, when the behavior was consistent with the trait "unintelligent," it was better recalled when dispositionally than situationally attributed. These last results appear to implicate the valence of the expectancy as a determinant of recall, because a friendly expectancy is positive in valence and an unintelligent expectancy is negative in valence. Because these findings were only of incidental interest to Crocker et al., they provided no explanation for them.

We sought to clarify the effects of attributed behaviors on person memory by introducing several changes into the procedure used by Crocker et al. (1983). First, we established a baseline for the recall of unattributed behaviors. Second, to provide a more reliable measure of recall, participants were presented with multiple target behaviors (24), instead of a single behavior, as was done in Crocker et al. Third, the between-subjects factors of their design (behavior consistency and attribution type) were converted to within-subject factors in Experiment 2 to create a more statistically sensitive design.

The first of our studies (Experiment 1) was conducted to establish a baseline using behaviors without attributions. We anticipated that the results from this study would replicate the incongruity effect obtained in previous studies. Experiment 2 used the behaviors from Experiment 1 and added explicit attributions (dispositional or situational) to them. In this study, we

expected to replicate the pattern of results obtained in Crocker et al.'s (1983) first experiment. That is, it was predicted that behaviors that were attributionally unexpected would be better recalled than behaviors that were attributionally expected. In an attempt to explain the results of our second experiment, the third experiment introduced a factor considered important in person memory—processing time. It also served as a replication of the findings from our second experiment.

Experiment 1

Method

Design and participants. A 2 (positive vs. negative expectancy) × 2 (consistent vs. inconsistent behaviors) mixed factorial design was used. The first factor was between subjects whereas the second factor was within subjects. Fifty-four students participated in the experiment as part of a course requirement. They were randomly assigned to the negative and positive expectancy conditions and were run in noninteracting groups of 6 to 8.

Stimuli. The stimulus materials consisted of 24 behavior statements that were taken from Hastie (1977) and statements developed during pretests for the present studies. The behaviors were either consistent or inconsistent with a positive or negative expectancy. The positive expectancy was made up of two traits, friendly and honest, whereas the negative expectancy was made up of the two opposing traits, unfriendly and dishonest. Half of the behaviors were consistent (six friendly and six honest) and half were inconsistent (six unfriendly and six dishonest) with the positive expectancy. The same behaviors were presented to participants under a negative expectancy, but in this case, the friendly and honest behaviors were inconsistent, whereas the unfriendly and dishonest behaviors were consistent. In pretesting the consistency of the behaviors, participants (n = 38, 19 per expectancy) were given either a positive or negative expectancy and then judged each of the behaviors on a 10-point scale that ranged from *very consistent* (0) to *very inconsistent* (9). The consistency ratings were then submitted to a 2 (valence of expectancy) × 2 (consistency of behavior with expectancy) analysis of variance (ANOVA). The analysis yielded only one significant result, a main effect for consistency, $F(1, 36) = 370.36$, $p < .0001$, which indicated, as expected, that behaviors consistent with their respective expectancies were rated as more consistent ($M = 1.52$) than inconsistent behaviors ($M = 7.59$). Some of the consistent behaviors for the positive expectancy (inconsistent for the negative expectancy) included "Bob was the first to ask the new employee over for dinner" (for friendliness) and "Bob gave back the extra change he received at the supermarket" (for honesty). Examples of inconsistent behaviors for the positive expectancy (consistent with the negative expectancy) included "Bob didn't want to go out after work with his colleagues" (for unfriendliness) and "Bob flattered people at the party by telling them favorable lies" (for dishonesty).

The stimuli were combined in booklets that corresponded to three different randomization schemes. The randomization schemes were constrained so that one behavior from each of the four categories (friendly, honest, unfriendly, and dishonest) appeared once in each of six blocks. This method was chosen to prevent the differential strengthening of one expectancy over another (cf. Belmore, 1987; Stangor & Ruble, 1989).

Procedure. Participants were recruited to take part in an experiment on impression formation. Upon arriving at the lab, the participants were seated in cubicles that were divided by half-walls. The participants were given brief instructions on the impression formation task, and then they were provided with a trait characterization of a fictional character, "Bob," to induce expectancies concerning the traits friendly and honest (positive expectancy) or unfriendly and dishonest (negative expectancy). The expectancy manipulation read as follows:

> According to his acquaintances, Bob tends to be much more friendly and sociable (unfriendly and unsociable) than average. He tends (not) to enjoy making new friends, meeting with old friends, and generally tends (not) to value social activities. In addition, Bob is an honest (dishonest) and truthful (untruthful) person. He (does not) understand(s) the significance of upholding a high standard of moral and ethical conduct.

After reading through the characterization, the participants were presented with each of the 24 behaviors at 8-s intervals. Following the impression formation task, participants were given an 8-min interpolated task that consisted of labeling a map of the United States to reduce working memory effects.

A surprise recall task followed the interpolated task. Participants were asked to recall and write down as many of the behaviors as they could. They were also told that if they could not remember the exact wording they were to write down the idea. They were given 8 min to complete this task.

After completing the recall task, participants filled out a suspicion probe and were then debriefed. There was no indication of awareness of the manipulations by any participant.

Results

A judge, blind to the experimental conditions, credited participants with correctly recalling a behavior if their reproductions captured the gist of the originally presented item. And, similar to Belmore (1987), half credit was given for items that represented a partial meaning. Experiment 1 was designed to establish a baseline for the recall of unattributed behaviors, and therefore to replicate the well-established person memory incongruity effect.

The results were collapsed across traits within each expectancy condition. The 2 (valence of expectancy) × 2 (behavior consistency) mixed-design ANOVA produced only one reliable result, which indicated that the incongruity effect did occur, $F(1, 52) = 16.04$, $p < .0002$. Expectancy-inconsistent behaviors ($M = 4.67$) were better recalled than consistent behaviors ($M = 3.62$). The main effect involving valence of expectancy was not significant, $F(1, 52) < 1.00$, nor was the interaction of valence of expectancy and behavior consistency, $F(1, 52) = 1.91$, $p < .17$.

Discussion

Experiment 1 was conducted to establish that the stimulus behaviors would produce the person memory incongruity effect. The results indeed showed that expectancy-inconsistent behaviors were better recalled than consistent ones. These findings are equivalent to those obtained originally by Hastie and Kumar (1979). The lack of an effect for valence of expectancy is comparable to findings obtained by Srull et al. (1985, Experiments 5 and 6), who showed that once participants abstracted an expectancy, expectancy-inconsistent behaviors were better recalled than consistent ones, and this occurred regardless of whether the expectancies were positive or negative.

Experiment 2

Having established a baseline for the behavior stimuli, in Experiment 2 attributions were added to the behaviors to test the hypothesis that behaviors would be best recalled when their associated attributions are unexpected with regard to normative attributions. The design of Experiment 1 was retained, but a second within-subject factor, attribution type, was added.

Method

Design and participants. A 2 (positive vs. negative expectancy) × 2 (consistent vs. inconsistent behaviors) × 2 (dispositional vs. situational attribution) mixed factorial design was used. The latter two factors were within subjects. Fifty-four students participated in the study as part of a course requirement. Twenty-seven students were run in the positive expectancy condition, and 27 were run in the negative expectancy condition. The participants were run in noninteracting groups of 6 to 8.

Stimuli. The same expectancy manipulation and behavior statements used in Experiment 1 were used in Experiment 2. In Experiment 2, however, the behaviors were modified so that one half were linked to dispositional attributions and the other half were linked to situational attributions. Examples of the consistent behaviors (inconsistent for the negative expectancy) included "Bob was the first to ask the new employee over for dinner because he enjoys entertaining" (friendly, dispositional attribution) and "Bob gave back the extra change he received at the supermarket because his girlfriend told him to" (honest, situational attribution). Examples of the inconsistent behaviors (consistent for the negative expectancy) included "Bob didn't want to go out after work with his colleagues because he doesn't like socializing" (unfriendly, dispositional attribution) and "Bob flattered people at the party by telling them favorable lies because he had been given too much to drink" (dishonest, situational attribution).

The behaviors with attributions were tested to determine their locus of causality and favorability to ensure that no biases existed with regard to the pairing of behaviors and attributions. Twenty judges rated the set of attributed behaviors for locus of causality. In addition, these judges rated the favorableness of the unattributed behavior stems. Both types of judgments were made on 10-point scales. The scale for the locus of causality ratings ranged from *very external, situational* (0) to *very internal, dispositional* (9). The scale for the favorability ratings ranged from *very unfavorable* (0) to *very favorable* (9).

The locus-of-causality ratings were analyzed using a 2 (valence of behavior) × 2 (attribution type) within-subject ANOVA, which produced only one significant effect, a main effect for attribution type, $F(1, 18) = 230.59$, $p < .0001$. As expected, dispositionally attributed behaviors ($M = 8.28$) were rated as more dispositional than situationally attributed behaviors ($M = 2.36$). The 2 (valence of behavior) × 2 (attribution type) within-subject ANOVA on the favorability ratings also produced only one reliable effect, a main effect for valence of behavior, $F(1, 18) = 316.21$, $p < .0001$. As expected, positive behaviors were rated ($M = 7.69$) more favorably than negative behaviors ($M = 1.79$).

The stimuli were again combined in booklets using three different randomization schemes, which were constrained so that each of the four different types of behaviors (consistent-dispositional, consistent-situational, inconsistent-dispositional, and inconsistent-situational) appeared once in each of six blocks to prevent the strengthening of one expectancy over another. The remaining aspects of the procedure for Experiment 2 were identical to those of Experiment 1.

Results

A judge, blind to the experimental conditions, scored recall. However, unlike Experiment 1, participants had to produce the gist of both the behavior stem and the associated attribution to receive full credit for an item. If only the behavior stem was produced, the participants were given half credit for the item. No credit was given for the recall of an attribution without the associated behavior stem.[1]

In Experiment 2 we assessed person memory when behavioral acts were explicitly linked to attributions. The results from the 2 (valence of expectancy) × 2 (behavior consistency) × 2 (attribution type) mixed-design ANOVA indicated that, unlike Experiment 1, no incongruity effect occurred for attributed behaviors, $F(1, 52) = 1.35$, $p < .25$. In fact, the mean for the recall of consistent behaviors was negligibly greater than that of inconsistent behaviors ($M = 3.70$ and $M = 3.42$, respectively). However, a significant three-way interaction did emerge, $F(1, 52) = 41.70$, $p < .0001$. Separate ANOVAs within each valence of expectancy condition indicated that Behavior Consistency × Attribution Type interactions occurred for both the negative, $F(1, 26) = 21.65$, $p < .0001$, and the positive expectancy, $F(1, 26) = 20.05$, $p < .0001$. For the negative expectancy (see Table 1), the results indicated that among dispositionally attributed behaviors, those that were expectancy-consistent were better recalled than those that were inconsistent, $p < .0001$. Among situationally attributed behaviors, it was the expectancy-inconsistent behaviors that were better recalled than the consistent behaviors, $p < .006$.

A complete reversal occurred for the positive expectancy. In this case, dispositionally attributed behaviors were better recalled if they were expectancy-inconsistent than if they were consistent, $p < .006$. But among situationally attributed behaviors, behaviors that were expectancy-consistent were better recalled than those that were inconsistent, $p < .003$.

These results are not consistent with the attributional unexpectedness hypothesis because this hypothesis was supported only under the positive expectancy.

Other reliable effects from the overall analysis included a main effect for valence of expectancy, $F(1, 52) = 8.88$, $p < .004$, and a main effect for attribution type, $F(1, 52) = 15.28$, $p <$

[1] A count was conducted on the number of behavior items that were recalled without the associated attribution. Across Experiments 2 and 3, there were 132 occurrences of such recall, which makes up only a relatively small percentage of total recall (18%). Furthermore, the pattern of half-item recall did not coincide with the misanthropy effect. Across Experiments 2 and 3, the mean of such items belonging to the positive, dispositional category was .45; to the positive, situational category, .30; to the negative, dispositional category, .43; and to the negative, situational category, .24. The pattern of recall for half items, if anything, indicates that behaviors associated with dispositional attributions were somewhat more likely to be recalled without the associated attribution than behaviors associated with situational attributions. A similar count was conducted on the number of attributions recalled without a behavior stem. Across Experiments 2 and 3, only 29 attributions were recalled without a behavior stem. Broken down by category, the average number of recalled attributions did not coincide with the misanthropy effect (positive, dispositional category $M = .05$; positive, situational $M = .04$; negative, dispositional $M = .13$; and negative, situational $M = .09$). If participants had been credited for the recall of such attributions without the associated behavior stems, a negligible but slight boost would have been given to the misanthropy effect because the largest mean of such uncredited items occurred for the negative, dispositional category.

Table 1
Recall for Behaviors in Experiment 2

Behavior	Dispositional attribution	Situational attribution
	Positive expectancy	
Consistent	1.46	2.76
Inconsistent	2.17	1.76
	Negative expectancy	
Consistent	1.74	1.44
Inconsistent	0.67	2.26

.0003. The former main effect indicated better recall under a positive (M = 8.15) than a negative expectancy (M = 6.11), whereas the latter main effect indicated better recall of situationally than dispositionally attributed behaviors (situational M = 4.11 vs. dispositional M = 3.02).

The opposing effects for valence of expectancy embodied in the three-way interaction can be eliminated by reconceptualizing the factors contributing to this interaction. The valence of the behaviors in Experiment 2 depends on the relationship between the valence of the expectancy and whether the behavior is consistent or inconsistent with the expectancy. A behavior consistent with a positive expectancy is positive in valence, whereas an inconsistent behavior is negative. Similarly, a behavior consistent with a negative expectancy is negative in valence, whereas an inconsistent behavior is positive. Thus, the behaviors themselves can be characterized by valence, instead of consistency with an expectancy. A reanalysis of the data according to this scheme, a 2 (valence of expectancy) × 2 (valence of behavior) × 2 (attribution type) mixed-design ANOVA, indicates that attribution type has opposite effects depending on the valence of the behavior (see Table 2), as evidenced by the significant interaction of these two factors, $F(1, 52) = 41.70$, $p < .0001$. The results show that among negative behaviors, dispositionally attributed behaviors are better recalled than situationally attributed ones. In contrast, positive situationally attributed behaviors are better recalled than positive dispositionally attributed behaviors. Both comparisons are significant, $p < .04$ and $p < .0001$, respectively. In addition, the comparisons across attribution type are also both reliable (ps $< .0001$).

This reconceptualization applies to both positive and negative expectancies as the valence of expectancy factor was not shown to qualify the Behavior of Valence × Attribution Type interaction. The Valence of Expectancy × Valence of Behavior × Attribution Type interaction was virtually nonexistent, $F(1, 52) < .11$, $p < .74$.

Discussion

Experiment 2 was conducted to assess people's memory for behavioral information that is accompanied by attributions. At a descriptive level, the recall of attributed behaviors differs markedly from the recall of unattributed behaviors (Experiment 1). The results of our second study did not support the attributional unexpectedness hypothesis proposed at the outset. Instead, the results can be best understood by analyzing the data in terms of the valence of the behaviors, rather than their consistency with the participants' expectations. The reconceptualization of the data in terms of valence of behavior and attribution type suggests a parsimonious account of memory for attributed behaviors, which we will term the *misanthropy effect*. The pattern of recall in this study is misanthropic because people remembered best negative behaviors for which dispositional attributions were provided and positive behaviors for which situational attributions were provided.

The findings showing that people tend to remember others' negative dispositionally attributed behaviors and positive situationally attributed behaviors are consistent with research demonstrating negativity effects in social perception (N. H. Anderson, 1965; Briscoe, Woodyard, & Shaw, 1967; Fiske, 1980; Hamilton, Dugan, & Trolier, 1985; Hamilton & Huffman, 1971; Hamilton & Zanna, 1972; Klein, 1991; Pratto & John, 1991; Richey, Bono, Lewis, & Richey, 1982; Richey, Koenigs, Richey, & Fortin, 1975; Skowronski & Carlston, 1987; Wyer, 1970). The persistence and generality of negativity effects, or the proclivity to overreact to negative social information (Fiske, 1993), has prompted a variety of attempts to explain why they occur (Kanouse & Hanson, 1972; Skowronski & Carlston, 1989; Taylor, 1991).

One of these explanations, the positivity norm, is based on the notion that people perceive the world primarily in positive terms. In reporting personal expectations and personal happiness, people tend to be highly positive (Bradburn & Caplovitz, 1965; Markus & Nurius, 1986; Taylor & Brown, 1988). When judging the probability that positive characteristics occur in a population, people indicate that positive traits are more prevalent than negative ones (Rothbart & Park, 1986; cf. Jones & Davis, 1965; Kelley, 1967). People also use positive words more frequently than negative words (Kanouse & Hanson, 1972). These findings suggest that positive events and behaviors are expected in our own lives and in our world. This norm favoring positive expectations serves as the background against which negative events are contrasted. In other words, in a world where positive events are expected, negative events are more informative because of their unexpectedness and may therefore receive greater weight in people's perceptions and memory.

The positivity norm explanation for negativity effects provides one possible explanation of the current misanthropic memory findings. People may remember others' negative dispositionally attributed behaviors and positive situationally attributed behaviors because they contrast with their positive expectations about the world. More specifically, these attributionally negative behaviors may garner more attention (Pratto & John, 1991) and elicit more cognitive activity than attributionally positive behaviors, which may allow them to become better represented in memory (Hastie, 1984).

Whereas the positivity norm explanation posits that the mis-

Table 2
Reconceptualization of the Results From Experiment 2

Behavior	Dispositional attribution	Situational attribution
Positive	1.06	2.51
Negative	1.95	1.60

anthropy effect could result from misanthropic information being incongruent with people's general expectations about their world, it is also possible that a type of congruity, and not incongruity, is responsible for the misanthropy effect. The classic works in attribution (Jones & Davis, 1965; Kelley, 1967) offer a hypothesis that is relevant to this issue. These theorists proposed that socially undesirable behavior is informative with respect to people's dispositions, whereas socially desirable behavior is informative with respect to the situation surrounding the behavior (e.g., rewards, social pressure). Perhaps it is the case that people hold a general causal heuristic of the form: negative behaviors are caused by people and positive behaviors are caused by situations. If people hold such a set of causal expectancies, then the types of attributed behaviors that characterize the misanthropy effect are congruent with expectations, rather than incongruent.

There is a third explanation, more motivational in flavor, that could also explain the recall advantage of misanthropic information. If it is assumed that social comparison activity (Festinger, 1954) can be elicited during the impression formation process, it may be that people, in attempting to make themselves feel better (e.g., boost their self-esteem), may selectively attend to and more fully process the attributionally negative things that others do. The recall of tainting information regarding others may serve as a foundation for making positive social comparisons. This explanation is consistent with Tesser's (1988) self-evaluation maintenance theory, which proposes that people wish to make favorable self-evaluations. To do so, they will engage in cognitive processes and behaviors that maximize positive self-evaluation and minimize negative self-evaluation.

Finally, it is possible that more than one of the preceding explanations may play a role in the misanthropy effect, and thus both cognitive and motivational factors may contribute to the effect. The third experiment was designed to distinguish between the two cognitive explanations.

If the misanthropy effect is due to attributionally negative information spending more time in working memory than less damaging information because it is incongruent with a positivity norm, the effect should be eliminated if insufficient processing time is allotted to this information. This suggestion is based on the results of a study by Bargh and Thein (1985), who found that reduced processing times decreased the recall advantage of behaviors that were inconsistent with expectancies. However, if the misanthropy effect is the result of attributionally negative behaviors being congruent with general causal expectancies, the effect should not be altered by reduced processing times because these behaviors serve as instantiating events for the general causal heuristic (i.e., negative behaviors are caused by people; positive behaviors are caused by situations), which should aid in their encoding and retrieval (cf. R. C. Anderson & Pichert, 1978; Fiske & Taylor, 1991; Pichert & Anderson, 1977). Experiment 3 manipulated processing time to test these contrasting hypotheses. It also served as a replication of Experiment 2.

Experiment 3

Method

Design and participants. A 2 (short vs. long stimulus duration) × 2 (positive vs. negative expectancy) × 2 (consistent vs. inconsistent behaviors) × 2 (dispositional vs. situational attributions) mixed design was used. The latter two factors were within subjects. Forty students participated in the study to partially fulfill a course requirement and were randomly assigned to the four between-subjects conditions.

Stimuli and procedure. The behavior statements used in Experiment 2 were also used in this study. However, unlike Experiment 2, the stimuli were printed on slides that were presented by a projector according to the randomization schemes of Experiments 1 and 2. In addition, two neutral behaviors were presented at the beginning of the behavior list and two were presented at the end of the list to serve as primacy and recency buffers. An 850H Kodak projector was used to present the slides. It was controlled by a Ralph Gerbrands shutter and shutter control box (Model g1166) and a LaFayette four-bank timer (Model 52010). Pretesting was conducted to establish the minimum times participants needed to read through the behaviors. It was determined that 5 s per item was sufficient for participants to read through each of the behaviors without allowing for further elaboration. Therefore, participants in the short duration condition were allotted 5 s per item. Participants in the long duration condition were allowed 8 s per item, as was done in Experiment 2.

Participants were run in groups of 4 to 6 and were seated equidistant from the screen on which the stimuli were presented. The remaining aspects of the procedure were identical to those of Experiment 2.

Results

One participant was dropped from the analysis for generating trait descriptors instead of behaviors in the recall protocol. As was done in the reconceptualization of the results of Experiment 2, each behavior recalled was characterized by valence depending on whether it was consistent or inconsistent with the induced expectancy. The valence of behavior factor was then analyzed along with attribution type and the two between subjects factors, stimulus duration and valence of expectancy, in a 2 × 2 × 2 × 2 mixed-design ANOVA. The analysis showed that attribution type again had opposite effects depending on the valence of behavior, consistent with the misanthropy effect. This is evidenced by the highly significant interaction of these two factors, $F(1, 35) = 105.30$, $p < .0001$ (see Table 3). The results show that among negative behaviors, dispositionally attributed behaviors are better recalled than situationally attributed behaviors. In contrast, for positive behaviors, situationally attributed behaviors are better recalled than dispositionally attributed behaviors. Both comparisons are highly significant (ps < .005 and .0001, respectively), as are the comparisons across attribution type (ps < .0001). In addition, similar to Experiment 2, the misanthropy pattern applied to both positive and negative expectancies—the valence of expectancy factor did not interact with valence of behavior and attribution type, $F(1, 35) = .91$, $p < .35$.

Stimulus duration, though, did interact with valence of behavior and attribution type, $F(1, 35) = 7.75$, $p < .009$ (see Ta-

Table 3
Recall for Behaviors in Experiment 3

Behavior	Dispositional attribution	Situational attribution
Positive	0.70	2.38
Negative	1.58	1.05

Table 4
Recall for Behaviors in Experiment 3 as a Function of Stimulus Duration

Behavior	Dispositional attribution	Situational attribution
	Long duration	
Positive	0.89	2.84
Negative	2.08	1.18
	Short duration	
Positive	0.52	1.95
Negative	1.10	0.92

ble 4). Separate ANOVAs within each stimulus duration condition indicated that the Valence of Behavior × Attribution Type interactions were significant under both the long, $F(1, 17) = 63.35$, $p < .0001$, and the short duration conditions, $F(1, 18) = 40.51$, $p < .0001$. The duration factor is implicated in the interaction by means of its effect on the processing of negative behaviors. Specifically, whereas the misanthropy pattern was quite strong under the long duration condition, with negative behaviors being better recalled when dispositionally than situationally attributed, $p < .007$, and positive behaviors being better recalled when situationally than dispositionally attributed, $p < .0001$ (replicating Experiment 2), the strength of the pattern was diminished in the short duration condition. The recall of positive behaviors was still greater when situationally than dispositionally attributed, $p < .0001$, but the recall for negative behaviors that were dispositionally versus situationally attributed no longer differed reliably, $p < .17$, although the difference was in the direction associated with the misanthropy effect. However, the comparisons across attribution type in the short duration condition still indicated that the recall of negative dispositionally attributed behaviors ($M = 1.10$) was greater than the recall of positive dispositionally attributed behaviors ($M = .52$), $p < .007$, and that the recall of positive situationally attributed behaviors ($M = 1.95$) was greater than the recall of negative situationally attributed behaviors ($M = .92$), $p < .003$. Thus, three of the four comparisons comprising the misanthropy effect were significant in the short duration condition.

Other reliable effects from the analysis included a main effect for stimulus duration, $F(1, 35) = 13.57$, $p < .0008$, and a main effect for attribution type, $F(1, 35) = 27.73$, $p < .0001$. The first main effect indicated, as would be expected, that there was higher recall under the long stimulus duration ($M = 7.00$) than under the short stimulus duration ($M = 4.50$). The second main effect indicated that situationally attributed behaviors were recalled better than dispositionally attributed behaviors (situational $M = 3.43$ vs. dispositional $M = 2.28$). In addition, the Stimulus Duration × Valence of Expectancy × Valence of Behavior interaction was significant, $F(1, 35) = 5.15$, $p < .03$, as was the four-way interaction, $F(1, 35) = 12.42$, $p < .001$. The three-way interaction indicated that under long exposure durations, expectancy-inconsistent behaviors (e.g., negative behaviors for a positive expectancy and positive behaviors for a negative expectancy) were better remembered than under short exposure durations, consistent with other research in person memory (Bargh & Thein, 1985). In the four-way interaction the results for behaviors with dispositional information were similar under the long and short durations, but the results for behaviors with situational attributions differed under long and short durations. For behaviors with dispositional attributions, negative behaviors were better recalled than positive behaviors, but the pattern was more complex for behaviors with situational attributions. At long durations, positive and negative behaviors were better recalled when they were expectancy inconsistent, but at short durations positive and negative behaviors were better recalled when they were expectancy consistent. Thus, although this interaction is intelligible, it has little bearing on the misanthropy effect.

Discussion

Experiment 3, using a different presentation procedure, showed that misanthropic person memory, in which negative dispositionally attributed behaviors and positive situationally attributed behaviors are best recalled, is a replicable effect. In addition, although reduced processing times affected the amount of information recalled, especially negative information, reduced processing times did not alter the pattern of the effect. Even at short durations, negative dispositionally attributed behaviors were still better recalled than positive dispositionally attributed behaviors and positive situationally attributed behaviors were better recalled than negative situationally attributed behaviors. These findings support the general causal expectancies hypothesis, but not the positivity norm explanation of misanthropic person memory. They suggest that even at short durations, the encoding and retrieval of misanthropic information may be enhanced because people rely on a general causal heuristic in which negative behaviors are thought to be caused by dispositions and positive behaviors are thought to be caused by situations.

General Discussion

Person memory research has frequently found that behavioral information that is inconsistent with expectancies is better remembered than consistent information. Although various factors have been shown to influence the person memory incongruity effect (Rojahn & Pettigrew, 1992; Stangor & McMillan, 1992), one that has been overlooked concerns how memory is affected when behaviors are associated with plausible attributions. The present set of studies was designed to address this question. Because of the mixed findings regarding the effects of attributed behaviors on person memory (Crocker et al., 1983), it seemed important to establish that the person memory incongruity effect would occur with the stimulus materials to be used in this research. The results from Experiment 1 showed that, with unattributed behaviors, behaviors that are inconsistent with expectancies are better remembered than those that are consistent. Having established this baseline, explicit attributions that referred to either the target's disposition or the situation were added to the behaviors from Experiment 1.

The findings from Experiment 2 indicated that the person memory incongruity effect found in Experiment 1 no longer held. Instead, the findings involved three factors: valence of expectancy, behavior consistency, and attribution type, as evi-

denced by a three-way interaction. However, a reconceptualization of these data suggested that a simpler, two-factor model better characterizes recall for attributed behaviors. This reconceptualization, which we have labeled the *misanthropy effect,* indicates that two types of behaviors are recalled best: negative dispositionally attributed behaviors and positive situationally attributed behaviors.

These results conceptually replicate the findings from Crocker et al.'s (1983) Experiment 2, which indicated that when the target's behavior was consistent with the trait friendly, it was better recalled when situationally than dispositionally attributed. In contrast, when the behavior was consistent with the trait unintelligent, it was better recalled when dispositionally than situationally attributed. A behavior that is consistent with the trait friendly is positive in valence, and a behavior that is consistent with the trait unintelligent is negative in valence. Because the positive behavior that was situationally attributed and the negative behavior that was dispositionally attributed were best recalled, it appears that the results from Crocker et al.'s second experiment also support the misanthropy effect.

Experiment 3 served as a replication of the misanthropic person memory results of Experiment 2 and showed that the effect is only slightly attenuated when processing times are reduced to a level that affects overall recall. Together, the results from Experiments 2 and 3, and those of Crocker et al.'s (1983) second experiment, suggest that when people are provided with attributions for others' behaviors, they remember best negative dispositionally attributed behaviors and positive situationally attributed behaviors, behaviors that cast the target in the most negative light.

In the current research, the idea that person memory for attributed behaviors could be characterized in terms of an incongruity effect was discredited. We originally suggested that memory for attributed behaviors would be a function of attributional unexpectedness, that is, we anticipated that attributed behaviors would be best recalled when the attributions that were explicitly provided for them did not jibe with normative attributions (situational attributions for expectancy-inconsistent behaviors and dispositional attributions for expectancy-consistent behaviors). The results of Experiment 2 indicated that this attributional unexpectedness explanation could not account for the recall of attributed behaviors. Having reconceptualized the findings of Experiment 2 as a misanthropy effect, three alternative hypotheses were offered to explain it; two were cognitive in nature and one was motivational. Experiment 3 was conducted as a test of the two cognitive explanations and found more support for a general causal expectancies explanation of the misanthropy effect than for a positivity norm explanation. Future research is needed to further examine both cognitive and motivational explanations for the misanthropy effect.

The findings across Experiments 2 and 3 suggest that the misanthropy effect is not dependent on prior trait expectancies people hold about a specific target. This finding may be the result of attributional information inducing people to be more data driven and paying less attention to the trait expectancy. It appears that being given an attribution for a behavior eliminates the need for people to compare the behavioral information against prior trait expectancies. It is possible that stronger trait expectancies, such as those associated with stereotypes, might eliminate the misanthropic processing of attributed behaviors, as it appears to do for unexpected behaviors. Similarly, other factors that affect the person memory incongruity effect may also influence the misanthropy effect. Misanthropy may be more likely to occur for nonmeaningful than meaningful groups. It may also be affected by mood. In addition, it is possible that if people have reason to question the validity of the attributions associated with behaviors—for example, if the source of the information has low credibility or might be perceived as gaining something from providing such information (e.g., Wyer & Carlston, 1994)—misanthropy may be less likely to occur because the attributional information is not perceived as veridical. These are all questions to be resolved by future research.

The results of this set of experiments have some intriguing implications for understanding the impressions people form of others and the groups to which they belong. The data suggest that when people process attributions for the behavior of other people, they are most likely to retain information that casts the other in a negative light. When making judgments of others in the future they may be more likely to recall negative dispositional information than information that exonerates the others of responsibility for negative behavior and less likely to remember positive dispositional information than information that explains positive behaviors away. Consequently, their judgments or impressions of others may be predominantly negative with respect to dispositional characteristics related to behaviors about which they have processed attributional information. If the others are exemplars of social categories, the impressions they form of the group may be correspondingly negative.

The current research began as an attempt to clarify earlier work in person memory that involved providing attributions for the behaviors of another person. Person memory for attributed behavioral information appears to be different from person memory for unattributed behavioral information. To paraphrase Shakespeare, it appears that for attributed behaviors, bad traits live on in memory but good ones go to the grave.

References

Anderson, N. H. (1965). Primary effects in personality impression formation using a generalized order effect paradigm. *Journal of Personality and Social Psychology, 2,* 1–9.

Anderson, R. C., & Pichert, J. W. (1978). Recall of previously unrecallable information following a shift in perspective. *Journal of Verbal Learning and Verbal Behavior, 17,* 1–12.

Asch, S. E. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology, 41,* 258–290.

Asuncion, A. G., & Lam, W. F. (1995). Affect and impression formation: Influence of mood on person memory. *Journal of Experimental Social Psychology, 31,* 437–464.

Bargh, J. A., & Thein, R. D. (1985). Individual construct accessibility, person memory, and the recall–judgment link: The case of information overload. *Journal of Personality and Social Psychology, 49,* 1129–1146.

Bell, L. G., Wicklund, R. A., Manko, G., & Larkin, C. (1976). When unexpected behavior is attributed to the environment. *Journal of Research in Personality, 10,* 316–327.

Belmore, S. M. (1987). Determinants of attention during impression formation. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 13,* 480–489.

Bradburn, N. M., & Caplovitz, D. (1965). *Reports on happiness.* Chicago: Aldine.

Briscoe, M. E., Woodyard, H. D., & Shaw, M. E. (1967). Personality impression change as a function of the favorableness of the first impressions. *Journal of Personality, 35,* 343–357.

Crocker, J., Hannah, D. B., & Weber, R. (1983). Person memory and causal attributions. *Journal of Personality and Social Psychology, 44,* 55–66.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7,* 117–140.

Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology, 38,* 889–906.

Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology, 44,* 155–194.

Fiske, S. T., & Taylor, S. E. (1991). *Social cognition.* New York: McGraw-Hill.

Grice, H. (1975). Logic and conversation. In P. Cole & J. Morgan (Eds.), *Syntax and semantics: Vol. 3. Speech acts* (pp. 68–134). New York: Academic Press.

Hamilton, D. L. (1988). Causal attribution viewed from an information-processing perspective. In D. Bar-Tal & A. W. Kruglanski (Eds.), *The social psychology of knowledge* (pp. 359–385). Cambridge, England: Cambridge University Press.

Hamilton, D. L., Driscoll, D. M., & Worth, L. T. (1989). Cognitive organizations of impressions: Effects of incongruency in complex representations. *Journal of Personality and Social Psychology, 57,* 925–939.

Hamilton, D. L., Dugan, P. M., & Trolier, T. K. (1985). The formation of stereotypic beliefs: Further evidence for distinctiveness-based illusory correlations. *Journal of Personality and Social Psychology, 48,* 5–17.

Hamilton, D. L., Grubb, P. D., Acorn, D. A., Trolier, T. K., & Carpenter, S. (1990). Attribution difficulty and memory for attribution-relevant information. *Journal of Personality and Social Psychology, 59,* 891–898.

Hamilton, D. L., & Huffman, L. J. (1971). Generality of impression formation processes for evaluative and non-evaluative judgments. *Journal of Personality and Social Psychology, 20,* 200–207.

Hamilton, D. L., & Zanna, M. (1972). Differential weighting of favorable and unfavorable attributes in impressions of personality. *Journal of Experimental Research in Personality, 6,* 204–212.

Hastie, R. (1977). *Behavior ratings.* Unpublished manuscript, Harvard University, Cambridge, MA.

Hastie, R. (1981). Schematic principles in human memory. In E. T. Higgins, C. P. Herman, & M. P. Zanna (Eds.), *Social cognition: The Ontario Symposium* (Vol. 1, pp. 39–88). Hillsdale, NJ: Erlbaum.

Hastie, R. (1984). Causes and effects of causal attribution. *Journal of Personality and Social Psychology, 46,* 44–56.

Hastie, R., & Kumar, P. A. (1979). Person memory: Personality traits as organizing principles in memory for behavior. *Journal of Personality and Social Psychology, 37,* 25–38.

Hayden, T., & Mischel, W. (1976). Maintaining trait consistency in the resolution of behavioral inconsistency: The wolf in sheep's clothing? *Journal of Personality, 44,* 109–132.

Hendrick, C., & Costantini, A. F. (1979). Effects of varying trait inconsistency and response requirements on the primary effect in impression formation. *Journal of Personality and Social Psychology, 15,* 158–164.

Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. *Advances in Experimental Social Psychology, 2,* 220–266.

Kanouse, D. E., & Hanson, L. R., Jr. (1972). Negativity in evaluations. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attribution: Perceiving the causes of behavior* (pp. 47–62). Morristown, NJ: General Learning Press.

Kelley, H. H. (1967). Attribution in social interaction. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (Vol. 15, pp. 192–240). Lincoln: University of Nebraska Press.

Klein, J. G. (1991). Negativity effects in impression formation: A test in the political arena. *Personality and Social Psychology Bulletin, 17,* 412–418.

Kulik, J. A. (1983). Confirmatory attribution and the perpetuation of social beliefs. *Journal of Personality and Social Psychology, 44,* 1171–1181.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41,* 954–969.

O'Sullivan, C. S., & Durso, F. T. (1984). Effect of schema-incongruent information on memory for stereotypical attributes. *Journal of Personality and Social Psychology, 47,* 55–70.

Pichert, J. W., & Anderson, R. C. (1977). Taking different perspectives on a story. *Journal of Educational Psychology, 69,* 309–315.

Pratto, F., & John, O. P. (1991). Automatic vigilance: The attention-grabbing power of negative social information. *Journal of Personality and Social Psychology, 61,* 380–391.

Pyszczynski, T. A., & Greenberg, J. (1981). Role of disconfirmed expectancies in the instigation of attributional processing. *Journal of Personality and Social Psychology, 40,* 31–38.

Regan, D. T., Straus, E., & Fazio, R. (1974). Liking and the attribution process. *Journal of Experimental Social Psychology, 10,* 385–397.

Richey, M. H., Bono, F. S., Lewis, H. V., & Richey, H. W. (1982). Selectivity of negative bias in impression formation. *Journal of Social Psychology, 116,* 107–118.

Richey, M. H., Koenigs, H. W., Richey, H. W., & Fortin, R. (1975). Negative salience in impression of character: Effects of unequal proportions of positive and negative information. *Journal of Social Psychology, 97,* 233–241.

Rojahn, K., & Pettigrew, T. F. (1992). Memory for schema-relevant information: A meta-analytic resolution. *British Journal of Social Psychology, 31,* 81–109.

Rothbart, M., & Park, B. (1986). On the confirmability and disconfirmability of trait concepts. *Journal of Personality and Social Psychology, 50,* 131–142.

Schneider, D. J., Hastorf, A. H., & Ellsworth, P. (1979). *Person perception.* Reading, MA: Addison-Wesley.

Sherman, J. W., & Hamilton, D. L. (1994). On the formation of interitem associative links in person memory. *Journal of Experimental Social Psychology, 30,* 203–217.

Skowronski, J. J., & Carlston, D. E. (1987). Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology, 52,* 689–699.

Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation. A review of explanations. *Psychological Bulletin, 105,* 131–142.

Srull, T. K. (1981). Person memory: Some tests of associative storage and retrieval models. *Journal of Experimental Psychology: Human Learning and Memory, 7,* 440–462.

Srull, T. K., Lichtenstein, M., & Rothbart, M. (1985). Associative storage and retrieval processes in person memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 11,* 316–345.

Srull, T. K., & Wyer, R. S., Jr. (1989). Person memory and judgment. *Psychological Review, 96,* 58–83.

Stangor, C., & Duan, C. (1991). Effects on multiple task demands upon memory for information about social groups. *Journal of Experimental Social Psychology, 27,* 357–378.

Stangor, C., & McMillan, D. (1992). Memory for expectancy-congru-

ent and expectancy-incongruent information: A review of the social and social developmental literatures. *Psychological Bulletin, 111,* 42–61.

Stangor, C., & Ruble, D. N. (1989). Strength of expectancies and memory for social information: What we remember depends on how much we know. *Journal of Experimental Social Psychology, 25,* 18–35.

Stern, L. D., Marrs, S., Millar, M. G., & Cole, E. (1984). Processing time and the recall of inconsistent and consistent behaviors of individuals and groups. *Journal of Personality and Social Psychology, 47,* 253–262.

Taylor, S. E. (1991). Asymmetrical effects of positive and negative events: The mobilization–minimization hypothesis. *Psychological Bulletin, 110,* 67–85.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103,* 193–210.

Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology, 21,* 181–227.

Wyer, R. S. (1970). Information redundancy, inconsistency, and novelty and their role in impression formation. *Journal of Experimental Social Psychology, 6,* 111–127.

Wyer, R. S., & Carlston, D. E. (1994). The cognitive representation of persons and events. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition* (2nd ed., Vol. 1, pp. 41–98). Hillsdale, NJ: Erlbaum.

Wyer, R. S., Jr., & Srull, T. K. (1989). *Memory and cognition in its social context.* Hillsdale, NJ: Erlbaum.

Ybarra, O. (1992). *Expectancy strength: The recall of stereotype-consistent and -inconsistent behaviors and their conditional probabilities.* Unpublished manuscript, New Mexico State University, Las Cruces.

Ybarra, O., & Stephan, W. G. (1995). *Mood and the recall–judgment link.* Manuscript submitted for publication.

Received May 12, 1995
Revision received November 3, 1995
Accepted November 6, 1995 ■