

Curiosity and Control: On the Determinants of the Search for Social Knowledge

William B. Swann, Jr., and Blair Stephenson
University of Texas at Austin

Thane S. Pittman
Gettysburg College

This report concerns the hypothesis that people will be particularly inclined to seek information about others when they have recently been deprived of control. In Part 1 of a two-part experiment, some participants experienced noncontrollable outcomes on a problem-solving task; others had no such experience. Participants were then introduced to what was ostensibly a second unrelated study in which they expected to interview another individual. Some participants were led to believe that acquiring information about the interviewee would have high utility; others were given no such expectation. The effects of these manipulations of control deprivation and information utility on participants' inclinations to seek information about the interviewee were assessed. As predicted, participants who experienced noncontrollable outcomes during Part 1 were particularly likely to seek highly diagnostic information during Part 2. There was also an independent tendency for participants to seek highly diagnostic information when they believed that the information had high utility. The relationship between the motive to maintain control and the processes by which people formulate and sustain images of themselves and others is discussed.

People are often curious about the persons they encounter. At times, they may attempt to satisfy this curiosity by taking active steps to acquire information about these persons. They may, for example, ask probing questions in the hope of unearthing hidden secrets from their interaction partners. At other times, they may become especially attentive when others describe the individuals whom they are curious about. In these and other ways, people may strive to learn more about the individuals around them.

Although it is clear that people at least sometimes engage in active information-seeking strategies, it is not immediately obvious why and when they are motivated to

do so. One factor that may prompt individuals to seek information about others is their recent experience with control or lack of control. Most students of the social perception process have assumed that individuals seek social knowledge to satisfy a need for effective control over the environment (e.g., Ich-eiser, 1949; Kelley, 1971; Kelly, 1955). One reasonably straightforward extrapolation from this assumption is that as people's need for control increases, so too will their tendency to seek information about others. Thus, following an experience with inability to control, individuals may attempt to restore control by seeking information about subsequent interaction partners. The major purpose of this investigation was to test this hypothesis.

An especially intriguing aspect of this hypothesis is that on the surface, at least, it appears to clash sharply with theory and research on learned helplessness. For example, there is evidence in the learned helplessness literature that experiences with lack of control lower motivation to perform subsequent problem-solving tasks (Abramson, Selig-

This research and the preparation of this manuscript were supported by grants in aid of research from the University Research Institute of the University of Texas at Austin to William B. Swann, Jr., and National Science Foundation Grant BNS 78-17440 to Thane S. Pittman. We thank Max Bazerman, Paul R. D'Agostino, and Robert Wicklund for their comments on an earlier draft of this manuscript.

Requests for reprints should be sent to William B. Swann, Jr., Department of Psychology, 330 Mezes Hall, University of Texas, Austin, Texas 78712.

man, & Teasdale, 1978; Seligman, 1975). Nevertheless, Pittman and Pittman (1980) have recently reported that such motivational deficits do not extend to the realm of making social inferences. In an investigation of the relationship between control deprivation and information utilization, these investigators first exposed participants to either a no, low, or high deprivation pretreatment. On subsequent measures of mood and problem solving, low-deprivation participants exhibited reactance, that is, high hostility and improved performance, whereas high-deprivation participants displayed learned helplessness, that is, depression and impaired performance (see Pittman & Pittman, 1979; Wortman & Brehm, 1975). However, both low- and high-deprivation participants were more likely to utilize information in a subsequent social inference task than were no-deprivation participants. These data suggest that depriving people of control may increase their desire to learn about others.

But even if depriving people of control motivates them to acquire information about others, their efforts to do so may not be indiscriminate or universal. Instead, it may be that people who have been deprived of control will only seek information that they believe will be useful to them in future interactions. Several studies suggest that individuals are more likely to both seek and utilize information about others with whom they expect to interact in the future. Berscheid, Graziano, Monson, and Dermer (1976) have shown that individuals who were committed to future interaction with another person paid more attention to her and made more extreme and confident inferences about her than did those who were not so committed. Similarly, Miller, Norman, and Wright (1978) found that anticipating interaction with another person caused individuals to make more dispositional attributions about that person. Finally, Elliott (1979) reported that participants were more likely to seek information about an interaction partner when they believed such information might be useful during a forthcoming self-presentational task. These data suggest that depriving individuals of control may increase information seeking only when individuals believe that the information has

high utility. We addressed this notion in the present investigation.

In addition to considering when individuals will be likely to engage in information seeking, it is also important to consider how they do so. Two strategies may be differentiated. One information-seeking strategy might be to address one's inquiry directly to the person. Although such a strategy may be very effective in collecting information, it does involve a fairly high level of risk. In particular, if the information that is desired is highly personal, direct questions might be perceived as overly intrusive, causing anger or embarrassment. For this reason, less intrusive methods of acquiring information may often be used. For example, the information seeker might consult public records or acquaintances of the target person for the desired information.

In this investigation, participants received an opportunity to acquire information about their interaction partners through both an intrusive and a nonintrusive strategy of information seeking. For the measure of intrusive information seeking, participants were asked to select a series of questions to ask of their interaction partner. For the measure of nonintrusive information seeking, participants were given an opportunity to indicate which of their interaction partner's previously recorded statements they wished to examine. We expected that individuals who were not highly motivated to learn about their interaction partners would be more likely to employ the relatively safe, nonintrusive strategy of information seeking. In contrast, we anticipated that individuals who were highly motivated to learn about their interaction partners would be more likely to employ both the intrusive and nonintrusive strategies of information seeking.

To assess the impact of deprivation of control and information utility on intrusive and nonintrusive strategies of information seeking, individuals were recruited to participate in a two-part experiment. In the first part of the experiment, some participants received noncontingent feedback for their performance on a concept-formation task (control deprivation); other participants received no feedback for their performance (no control deprivation). The control deprivation manipulation that was employed has been

shown to be effective in creating the depression and performance deficits characteristic of learned helplessness. After the concept-formation task, a second experimenter introduced participants to what was ostensibly a second study. As part of this second study, participants prepared to interview another individual. Some participants expected that they would have an opportunity to get acquainted with the interviewee and to ask additional questions after the interview (high utility); other participants expected that they would have no such opportunity to get acquainted with their partners following the interview (low utility). The major prediction was that participants would be more likely to seek information about their interaction partners when they had been deprived of control than when they had not been so deprived. In addition, we anticipated that control deprivation might be more likely to increase information seeking when participants believed that the information had high rather than low utility. Finally, we expected that participants who were only moderately motivated to learn about their interaction partners (i.e., those not deprived of control) might tend to rely on the indirect, nonintrusive strategy of information seeking but that participants who were highly motivated to learn about their partners (i.e., those deprived of control) would employ both the intrusive and nonintrusive strategies of information seeking.

Method

Participants

Sixty-one undergraduate females at the University of Texas at Austin participated in this experiment for course credit in their introductory psychology course.

Procedure

On arrival, the first experimenter informed participants that during the next hour they would engage in two separate, unrelated experiments. In the first experiment, he explained, the participant would perform a concept-formation task.

Part 1: The Concept-Formation Task

Participants received six concept-identification problems that have been used in discrimination learning studies (Levine, 1966) and investigations of learned helplessness (e.g., Hiroto & Seligman, 1975; Pittman & Pittman, 1979). For each problem, the experimenter

presented the participant with a series of 10 3 in. × 5 in. (7.62 cm × 12.7 cm) cards with two stimulus patterns on each card. Each stimulus pattern consisted of one value from each of these five dimensions: (a) letter (*a* or *r*); (b) letter color (black or red); (c) letter size (upper or lower case); (d) border surrounding letter (circle or square); and (e) underline (dotted or solid). The values assigned to the first of the two stimulus patterns were randomly determined; the values assigned to the second stimulus pattern were always the complements of the values assigned to the first stimulus pattern. To illustrate the nature of the task, the experimenter showed participants one 10-trial sample problem for which they received no feedback. The experimenter then introduced participants to the actual problems and promised them that if they worked hard on the task, they would receive \$2 in addition to course credit for participating in the experiment. This procedure was designed to ensure that all participants in the study would take their performance on the task seriously.

Control deprivation. Participants in the control-deprivation group learned that as each card was presented, their task would be to choose the side of the card that contained the correct value. The experimenter explained that by paying close attention to the feedback they received after each trial ("correct" or "incorrect"), the participant could determine the correct value. In reality, the feedback the participants received was randomly determined; overall, each participant was given 50% "correct" and 50% "incorrect" feedback on each problem.

After each set of 10 trials, participants stated what they believed to be the correct value for that set of trials. However, they were given no feedback concerning the validity of their answer. They then went on to the next problem, until all six problems were completed. Previous investigations have shown that this procedure produces the task-performance decrements and depression characteristic of learned helplessness (Pittman & Pittman, 1979, 1980).

No control deprivation. Participants in the no-deprivation condition received the same problems as did those in the control-deprivation group, but for each problem they were asked to guess the correct side of the stimulus card without receiving any feedback. Participants were told that their guesses would later be used to provide a baseline for evaluating the performances of individuals who did receive feedback. This procedure has been used as a baseline condition in two previous investigations (Pittman & Pittman, 1979, 1980).

When the participant completed all six problems, the experimenter announced that since she seemed to be trying hard, he would award her \$2. After awarding the money and thanking the participant, the experimenter escorted her to a room located on a different floor of the building for the "second study."

Part 2: Preparing for the Interview

The second experimenter (who was unaware of the level of control deprivation that the participant had received) introduced himself and stated that he was interested in the interview process. He explained that he was currently tape recording a series of interviews that would be used in a later project. Since it was important

that these interviews be as varied as possible, the experimenter continued, he was asking the interviewer to select questions of her own from a large pool of items. He then told the interviewer that she had been randomly assigned to the interviewer role and would therefore be selecting a series of questions to ask during an interview.

The information-utility manipulation. At this point, participants within the high-utility condition learned that after the interview, they would be required to create five additional questions to ask of the interviewee during a getting acquainted period after the interview. In contrast, participants within the low-utility condition learned nothing of additional questions or of a getting acquainted period after the interview.

The measures of information seeking. The measures of intrusive and nonintrusive information seeking were presented in counterbalanced order. The measure of nonintrusive information seeking was introduced by first informing participants that at that moment, the interviewee was answering a series of six questions. Participants then received the list of six questions that the partner was ostensibly in the process of answering and were told that they would be allowed to see any two of their partner's answers. The experimenter emphasized that there was no right or wrong strategy in choosing among the questions and that participants should simply select those questions whose answers they were most interested in scrutinizing.

The experimenter introduced the measure of intrusive information seeking by explaining that to ensure that a wide range of content areas were covered during the interviews, he wanted each participant to select from a pool of 30 questions the 10 questions that she would like to ask of the interviewee during the interview. Again, the experimenter made it clear that there were no restrictions on right or wrong questions and that they should simply select whatever questions they were most interested in asking.

The questions used for the measures of information seeking were derived in the following manner. Prior to the experiment, 67 statements were selected from Taylor and Altman's (1966) list of intimacy-scaled stimuli that represented 11 intimacy levels. These 67 statements were then translated into questions. Eighty-nine introductory psychology students read each of these questions and responded to the question, "If you asked this question of a male college freshman, how much do you think you would learn about him?" Responses could range from 1 (nothing at all) to 6 (a great deal). We then selected the questions from within each of three diagnosticity levels that had the lowest standard deviations.

Six questions were employed for the measure of nonintrusive information seeking. Two of these questions were viewed to be relatively nondiagnostic ("What do you believe is the extent of communist influence in the U.S.?" and "What are your favorite card games?"), two questions were considered relatively ambiguous with respect to diagnosticity ("How do you feel about mercy killings?" and "Do you like to do things alone or in a group?"), and two questions were considered to be relatively diagnostic ("What does it take to hurt your feelings deeply?" and "Describe how much love and companionship there was in your family as compared to other families").

The 30 questions used for the index of intrusive in-

formation seeking were also divided into three categories. The 8 questions that fell in the upper quartile were classified as diagnostic, the 8 that fell in the lower quartile were classified as nondiagnostic, and the remaining 14 were classified as ambiguous with respect to diagnosticity.

Results

Nonintrusive Information Seeking

Were participants who had been deprived of control more likely to seek out diagnostic information about their interaction partner than were participants who had not been so deprived? To address this question, the numbers of diagnostic and nondiagnostic answers that participants asked to examine in anticipation of the interview were computed.¹ The results confirmed the major prediction. A Control Deprivation (deprivation-no deprivation) \times Information Utility (high-low) \times Order (indirect first-direct first) multivariate analysis of variance (MANOVA) of the number of diagnostic and nondiagnostic answers that participants asked to examine revealed a reliable main effect of the control-deprivation manipulation, $F(2, 52) = 14.64, p < .001$. Univariate analyses indicated that participants in the control-deprivation condition asked to see more diagnostic answers than participants in the no-control-deprivation condition, $F(1, 53) = 11.20, p < .001$. Moreover, individuals in the no-control-deprivation condition asked to see more nondiagnostic answers than individuals in the control-deprivation condition, $F(1, 53) = 27.90, p < .001$.

The overall MANOVA also revealed that this main effect of the control-deprivation variable was qualified by an interaction with order, $F(2, 53) = 6.44, p < .01$. Univariate analyses indicated that this interaction was

¹ The number of answers and questions chosen from the intermediate diagnosticity category (i.e., ambiguous) was not included in any of the analyses. Since the total number of answers chosen for any subject was always two, and the total number of questions selected for the interview was always 10, once the number of items chosen in two of the categories had been specified, the number of items chosen in the third category was already determined and provided redundant information. Since the predictions were most clear for the high and low diagnostic items, we deleted the intermediate category from the analyses.

reliable for both the diagnostic answers, $F(1, 52) = 7.65, p < .01$, and nondiagnostic answers, $F(1, 52) = 10.47, p < .01$. As can be seen in Table 1, when their first opportunity to learn about their partners consisted of selecting answers, all participants asked to see a substantial number of diagnostic answers and relatively few nondiagnostic answers, regardless of level of control deprivation. In contrast, when individuals had already taken steps to learn about their partner by selecting questions to ask of them, only those individuals who had been deprived of control preferred diagnostic over nondiagnostic information. Compared to participants in the no-control-deprivation conditions, those in the control-deprivation condition asked to see a larger number of diagnostic answers, $F(1, 53) = 19.78, p < .001$, and fewer nondiagnostic answers, $F(1, 53) = 24.29, p < .001$. In summary, all participants who had been deprived of control were especially likely to seek diagnostic information. Moreover, even participants who had not been deprived of control displayed a preference for diagnostic information unless they had already selected questions for the interview.

Intrusive Information Seeking

A MANOVA of the number of diagnostic and nondiagnostic questions that participants chose to ask revealed a control-deprivation effect, $F(2, 52) = 3.09, p = .054$. As can be seen in Table 2, this control-deprivation effect was due to the tendency for individuals in the control-deprivation condition to select more diagnostic questions than individuals in the no-control-deprivation conditions, $F(1, 53) = 4.05, p < .05$. Control deprivation had no impact on the tendency to select nondiagnostic questions ($F < 1$). Thus, as predicted, individuals who had been deprived of control sought more diagnostic information than those not so deprived.

The multivariate analyses also revealed a marginal effect of information utility, $F(2, 52) = 2.98, p < .06$. Univariate analyses indicated that this effect was due to the fact that individuals who were led to believe that the information had high utility selected fewer nondiagnostic questions than those

Table 1
Use of the Nonintrusive Information-Seeking Strategy

Condition	Nonintrusive first		Intrusive first	
	Diag- nostic	Nondiag- nostic	Diag- nostic	Nondiag- nostic
Control depriva- tion	.90	.12	1.00	.00
No control depriva- tion	.87	.15	.24	.72

Note. Higher numbers indicate that participants asked to examine a greater number of answers.

who were led to believe that the information had low utility, $F(1, 53) = 5.36, p < .05$. Although high-utility individuals also selected more diagnostic questions than low-utility individuals, this tendency was not reliable ($F < 1$). Hence, it appears that in the high-utility condition, individuals simply avoided the nondiagnostic questions and chose the ambiguous questions instead.

Therefore, these data indicate that participants were more likely to use the intrusive strategy of information seeking when they had been deprived of control or believed that the information would have high utility.²

² We collected additional data that ruled out several alternative interpretations of our findings. For example, one could argue that participants who were deprived of control selected highly diagnostic questions out of a desire to be intimate, to make their partner uncomfortable, or to reveal negative information about their partner. To evaluate these alternative interpretations of our findings, we asked a group of undergraduate judges to rate each of the 30 questions according to (a) the intimacy of the question, (b) the likelihood that asking the question would make the answerer feel uncomfortable, and (c) the likelihood that the question would reveal negative information about the answerer. For each of these three dimensions, we identified the eight upper and eight lower quartile questions. We then performed a series of three separate 2 (control deprivation) \times 2 (utility) MANOVAS of the upper and lower quartile questions within each dimension. (This procedure paralleled the derivation and analyses of the questions coded according to diagnosticity.) The results clearly ruled out the alternative interpretations. There were no reliable effects of either control deprivation or utility in any of these analyses, nor was the interaction reliable. Therefore, it appears that our participants chose questions with an eye to acquiring diagnostic information rather than a desire to be intimate or make the partner look bad or feel uncomfortable.

Table 2
Use of the Intrusive Information-Seeking Strategy

Condition	Question			
	Diagnostic		Nondiagnostic	
	Low utility	High utility	Low utility	High utility
Control deprivation	4.35	4.54	1.60	1.00
No control deprivation	3.75	3.85	1.55	.83

Note. Higher numbers indicate that participants chose to ask a greater number of either diagnostic or nondiagnostic questions.

Discussion

When will people become curious about others? Our data suggest that one important factor is their prior experience with control. In this investigation, individuals who had been deprived of control sought more diagnostic information about the backgrounds, values, and life histories of their interaction partners than did individuals who had not been so deprived. At the same time, those who were not deprived of control did not totally avoid diagnostic information about their interaction partners; they too sought such information under certain conditions. Their information-seeking activities, however, differed from those of participants who had been deprived of control in at least two important respects. First, participants who had not been deprived of control were less likely to select diagnostic questions to ask of their interaction partners. Second, although even those individuals who had not been deprived of control asked to examine diagnostic information about their partners, this tendency was diminished when they were first given the opportunity to select questions to ask of their partners. It appears that selecting questions to ask of their partners satisfied the curiosity of participants in the no-deprivation condition. As a result, they felt no need to acquire more diagnostic information by asking to examine the inter-

viewees' replies to diagnostic questions. Apparently, although individuals who had not been deprived of control were somewhat motivated to seek diagnostic information about their interaction partners, their motivation to do so was substantially weaker than that of individuals who had been deprived of control.

Consistent with earlier research on information seeking and information utilization (Berscheid et al., 1976; Elliott, 1979; Miller & Norman, 1975; Miller et al., 1978), we found that participants were more likely to seek information if they believed that it was highly useful. Contrary to expectation, however, information utility did not moderate the effects of control deprivation. Whether the information was believed to have high or low utility, depriving participants of control enhanced information seeking. It may be that utility was sufficiently high in both the high- and low-utility conditions that even individuals in the low-utility-control-deprivation condition believed that the information would provide a useful means of exerting future control. Alternatively, it may be that depriving individuals of control is of itself sufficient to motivate information seeking, even when such information has little or no apparent usefulness. Consistent with this latter interpretation, Pittman and Pittman (1980) found that control deprivation enhanced the tendency for individuals to utilize information that had little apparent utility.

In both our investigation and the Pittman and Pittman (1980) study, individuals responded to threats to control by making active attempts to acquire or use information. These findings appear to be inconsistent with what might be expected to occur from a learned helplessness theory orientation (Abramson et al., 1978; Seligman, 1975). This theory argues that individuals who experience situations in which their outcomes and responses are independent will develop an expectancy that they cannot control their outcomes. This expectancy theoretically leads to an affective state of depression and decreased motivation to respond in subsequent situations. Although seeking information about others is an activity that is not addressed explicitly in learned helplessness the-

ory, a direct extrapolation from the theory would predict that participants who were deprived of control should have been either equally or less likely to probe for diagnostic information relative to those who were not deprived of control.

The apparent discrepancy between learned helplessness theory and our findings may hinge partially on the nature and generality of the expectancy that individuals characteristically develop after being deprived of control. Although our participants might have developed a negative expectancy toward their ability to master problem-solving tasks (as they have done in previous studies using test materials such as anagrams), they may nevertheless have remained confident in their ability to perceive other individuals accurately. If so, then participants who had been deprived of control should have been equally as likely to seek out diagnostic information as individuals not so deprived.

However, in both this investigation and that of Pittman and Pittman (1980), participants who were deprived of control were not simply equally likely to seek or utilize information as those who were not so deprived; they were actually more likely to do so. One explanation of this effect is that the consequences of control deprivation may depend on the similarity between the control-deprivation activity and subsequent activities. If people find that they are completely unable to control their outcomes within one domain, they may simply divert their efforts at mastery from tasks within that domain to tasks within other, unrelated domains. For example, after failing to master a deductive reasoning task, our participants sought to be more knowledgeable about their partners. Similarly, an academician might react to failure experiences within academia by foregoing further attempts at professional advancement and instead attempting to excel as an amateur pianist.

The discrepancy between our findings and those of Seligman and his colleagues may also be explained by noting that seeking highly diagnostic information is a relatively safe strategy for reasserting control. Thus, our control-deprived participants could seek highly diagnostic information without any fear of failure. In contrast, in the learned

helplessness literature, the test tasks are typically structured so that failure would be obvious. Therefore, rather than risk a further demonstration of their inability to exert control, participants who have been deprived of control simply withdraw effort. Consistent with this analysis, Alloy and Abramson (1979) have found that depressed individuals are better than normals in assessing the amount of control available in the environment, but they are at the same time less effective in the actual exercise of that control.

Whatever the future resolution of these issues may be, it is clear from the present findings that experience with control deprivation does lead to increased interest in acquiring diagnostic information about interaction partners. This finding lends empirical support to the notion that control motivation underlies and generates efforts to acquire social knowledge.

Related Issues in the Perception of Others and of Self

If individuals who have been deprived of control are particularly likely to solicit highly diagnostic information from interaction partners with whom they are unacquainted, what type of information will they seek concerning individuals about whom they already have beliefs and hypotheses? Recent research suggests that individuals regard information that confirms their hypotheses and beliefs about others to be more diagnostic than information that disconfirms their hypotheses and beliefs (e.g., Snyder & Cantor, 1979). Moreover, when asked to test a hypothesis about the personal attributes of others, people probe for evidence that confirms rather than disconfirms the hypothesis (e.g., Snyder & Swann, 1978). These data suggest that if deprived of control, individuals might well respond by intensifying their efforts to obtain evidence that will confirm their beliefs and hypotheses about others.

A parallel phenomenon may occur in the sphere of self-perception. In a series of empirical investigations, Swann and Read (Note 1, in press) have shown that during each of several distinct phases of the interaction process, people strive to acquire feedback that will verify and confirm their self-concep-

tions. Furthermore, the results of one study (Swann & Read, in press, Investigation 2) suggest that people are especially likely to engage in such self-verification processes if their perceptions of control have recently been threatened. That is, when sensitized to the possibility that a self-conception might be in error, participants made special efforts to verify that conception by trying to bring their interaction partner's appraisals into harmony with their self-conception.

From this perspective, the motive to maintain control may drive information seeking in two, sometimes conflicting, directions. The results of the present investigation suggest that if people have not yet formulated a belief about someone, the motive to maintain control may prompt them to seek out information that is highly diagnostic both in their own eyes and in the eyes of objective observers. At the same time, other research (e.g., Swann & Read, in press) suggests that when people have already formed some belief, the control motive may motivate them to look for evidence that will confirm that belief. Although the information seeker may regard such belief-confirmatory evidence as highly diagnostic, objective observers may often perceive such evidence as redundant or misrepresentative. This suggests that just as the control motive may prompt people to form highly accurate perceptions of social reality, it may also lead them to act so as to verify and sustain perceptions that may at least sometimes be quite erroneous.

Reference Note

1. Swann, W. B., Jr., Read, S. J. *Acquiring self-knowledge: The search for feedback that fits*. Unpublished manuscript, University of Texas at Austin, 1980.

References

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 1978, 87, 49-74.
- Alloy, L. B., & Abramson, L. Y. Judgment of contingency in depressed and nondepressed students: Sadder but wiser? *Journal of Experimental Psychology: General*, 1979, 108, 441-485.
- Berscheid, E., Graziano, W., Monson, T., & Dermer, M. Outcome dependency: Attention, attribution, and attraction. *Journal of Personality and Social Psychology*, 1976, 34, 978-989.
- Elliott, G. C. Some effects of deception and level of self-monitoring on planning and reacting to a self-presentation. *Journal of Personality and Social Psychology*, 1979, 37, 1282-1292.
- Hirot, D. S., & Seligman, M. E. P. Generality of learned helplessness in man. *Journal of Personality and Social Psychology*, 1975, 31, 311-327.
- Icheiser, G. Misunderstanding in human relations: A study in false social perception. *American Journal of Sociology*, 1949, 55(2), 1-70.
- Kelley, H. H. Attribution in social interaction. In E. E. Jones et al. (Eds.), *Attribution: Perceiving the causes of behavior*. New York: General Learning Press, 1971.
- Kelly, G. A. *The psychology of personal constructs*. New York: Norton, 1955.
- Levine, M. Hypothesis behavior by humans during discrimination learning. *Journal of Experimental Psychology*, 1966, 71, 331-338.
- Miller, D. T., & Norman, S. A. Actor-observer differences in perceptions of effective control. *Journal of Personality and Social Psychology*, 1975, 31, 503-515.
- Miller, D. T., Norman, S. A., & Wright, E. Distortion in person perception as a consequence of the need for effective control. *Journal of Personality and Social Psychology*, 1978, 36, 598-607.
- Pittman, N. L., & Pittman, T. S. Effects of amount of helplessness training and internal-external locus of control on mood and performance. *Journal of Personality and Social Psychology*, 1979, 37, 39-47.
- Pittman, T. S., & Pittman, N. L. Deprivation of control and the attribution process. *Journal of Personality and Social Psychology*, 1980, 39, 377-389.
- Seligman, M. E. P. *Helplessness: On depression, development, and death*. San Francisco: Freeman, 1975.
- Snyder, M., & Cantor, N. Testing theories about other people: The use of historical knowledge. *Journal of Experimental Social Psychology*, 1979, 15, 330-342.
- Snyder, M., & Swann, W. B., Jr. Hypothesis testing processes in social interaction. *Journal of Personality and Social Psychology*, 1978, 36, 1202-1212.
- Swann, W. B., Jr., & Read, S. J. Self-verification processes: How we sustain our self-conceptions. *Journal of Experimental Social Psychology*, in press.
- Taylor, D. A., & Altman, I. Intimacy-scaled stimuli for use in research on interpersonal exchange (Tech. Rep. No. 9, MF022.01.03-1002). Bethesda, Md.: Naval Medical Research Institute, May 1966.
- Wortman, C. B., & Brehm, J. W. Responses to uncontrollable outcomes: An integration of reactance theory and the learned helplessness model. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*. New York: Academic Press, 1975.

Received March 28, 1980

Revision received August 28, 1980 ■