

Behavioral Confirmation in Social Interaction: From Social Perception to Social Reality

MARK SNYDER AND WILLIAM B. SWANN, JR.

University of Minnesota

Received January 3, 1977

A perceiver's actions, although based upon initially erroneous beliefs about a target individual may channel social interaction in ways that cause the behavior of the target to confirm the perceiver's beliefs. To chart this process of behavioral confirmation, we observed successive interactions between one target and two perceivers. In the first interaction, targets who interacted with perceivers who anticipated hostile partners displayed greater behavioral hostility than targets whose perceivers expected nonhostile partners. Only when targets regarded their actions as reflections of personal dispositions did these behavioral differences in hostility persevere into their subsequent interactions with naive perceivers who had no prior knowledge about them. Theoretical implications of the behavioral confirmation construct for social perception processes are discussed.

*If men define situations as real,
they are real in their consequences.*
W. I. Thomas

It has been fashionable for many years to view deviance as a process of social definition and social creation (e.g., Becker, 1963; Schur, 1971; Tannenbaum, 1938). The essence of this "labeling" orientation is that ". . . social groups create deviance by making the rules whose infraction constitute deviance. . . ." (Becker, 1963, p. 9). Of critical importance to this process is the influence of labels on the dynamics of social interaction. Having once been tagged with a label that implies deviance, one's behavioral options may be constrained in ways that actually force one to become deviant. Consider the observations of Tannenbaum on the social creation of crime and delinquency:

This research and the preparation of this manuscript were supported in part by National Science Foundation Grant No. SOC 75-13872, "Cognition and Behavior: When Belief Creates Reality," to Mark Snyder. We thank Debra Polinsky, Gail Gaebe, and Stephanie Suther, who assisted in the empirical phases of this investigation. We appreciate the constructive commentary of Nancy Cantor, Bill DeJong, Albert H. Hastorf, E. E. Jones, and Walter Mischel on an earlier version of this manuscript.

Requests for reprints should be sent to Mark Snyder, Laboratory for Research in Social Relations, Department of Psychology, University of Minnesota, 75 East River Road, Minneapolis, Minnesota 55455.

The process . . . becomes a way of stimulating . . . and evoking the very traits that are complained of. . . . The person becomes the thing he is described as being. . . . The community expects him to live up to his [deviant] reputation, and will not credit him if he does not live up to it (Tannenbaum, 1938, pp. 19–20; 477).

Similar themes emerge from descriptions of the effects of stigmatization (e.g., Goffman, 1963; Scott, 1969; Szasz, 1961). Most notably, Goffman (1963) has argued that we may unintentionally “force” the stigmatized to play the roles we prescribe for them. Stigmatized individuals may thus fall “victim” to cultural stereotypes and expectations. Ex-mental patients or former prisoners may be provoked by the prejudicial treatment of others into angry reactions that may then be interpreted as manifestations of their disturbance, and in turn justify treating them as socially dangerous deviants.

The case histories and descriptive prose of the labeling theorists sensitize us to the possible impact of labels on subsequent social interaction. However, within social psychology, this concern with the interpersonal *consequences* of social perception has been largely neglected. Researchers and theorists concerned with social perception and attribution processes have focused their attention on the information-processing “machinery” by which individuals attempt to understand an actor’s behavior (e.g., Jones, Kanouse, Kelley, Nisbett, Valins, & Wiener, 1972). Conspicuously neglected within this cognitive social psychology is a consideration of the effects of interpersonal perceptions (including social labels) on social interaction. It is this reality-constructing function of social perception with which we are concerned. Accordingly, we ask: Can a perceiver’s perceptions of another individual channel social interaction in ways that actually cause the target individual’s actions to provide *behavioral confirmation* of the perceiver’s beliefs? The descriptions of the labeling theorists tentatively suggest an affirmative answer. So too does the research literature of empirical social psychology.

In certain specific contexts, a perceiver’s expectations may influence another individual’s behavior (e.g., Jones & Panitch, 1971; Kelley & Stahelski, 1970; Kuhlman & Wimberley, 1976; Miller & Holmes, 1975; Rosenthal, 1974). Thus, Rosenthal and his colleagues have documented the ways in which teachers and experimenters who expect particular patterns of performance from their students and subjects actually can and do elicit performances that confirm these expectations (for a review, see Rosenthal, 1974). As impressive as these demonstrations are, certain constraints of the situations studied may have produced a process quite different from the hypothesized behavioral confirmation process. Interactions between “trainers” (teachers and experimenters) and “performers” (students and subjects) are highly structured and focused on selected criterion behaviors (the dependent variable in the psychological experiment, academic

performance in the classroom). Expectancies are generally explicitly communicated to the trainers and usually have high credibility. Teachers and experimenters may feel that their own competence is being put to test. To the extent that their students and subjects behave as expected, their competence as teachers and experimenters is confirmed in both their own eyes and the eyes of the source of the expectancies. Indeed, in studies of experimenter effects, experimenters often are told that the purpose of their participation is to see how well they can replicate well-established experimental studies (e.g., Rosenthal & Fode, 1963). Thus, teachers and experimenters may be acting to validate or bolster their own self-conceptions of competence and efficacy (cf. Secord & Backman's, 1965, analysis of response-evocation as one means of maintaining self-perceptions).

However, research in other contexts does suggest that actions based on interpersonal perceptions may produce behavioral confirmation. Correlational analyses by Kelley and Stahelski (1970) indicate that individuals with competitive orientations to social relationships believe the world to be composed homogeneously of competitive individuals. By contrast, those with cooperative orientations construe the world to be more heterogeneously composed of both competitive and cooperative people. One consequence of these stereotypes is that competitive individuals are highly likely to elicit competitive responses from their partners in the Prisoner's Dilemma situation, whether these partners have cooperative or competitive dispositions. Thus, the feedback that competitors receive validates their stereotype that all people are competitive, even though it was their own behavior that determined their partner's competitive behavior. However, this effect may be specific to the structural characteristics of the particular Prisoner's Dilemma situation used by Kelley and Stahelski (Miller & Holmes, 1975). To this extent, this and other laboratory investigations of the interpersonal consequences of social perception that have relied on the Prisoner's Dilemma game (e.g., Jones & Panitch, 1971; Kuhlman & Wimberley, 1976) may be of limited relevance to behavioral confirmation processes.

Despite the interpretive ambiguities associated with some of the procedures and results reviewed above, this evidence seems to indicate that perceivers' initial beliefs about another (target) individual may lead them to channel their subsequent interaction with this individual in ways that cause the target's behavior to confirm these beliefs. But how stable and enduring are the effects of this behavioral confirmation process? If behavioral confirmation were limited to the confines of the specific interaction between perceiver and target, it would be an inconsequential effect of interpersonal perception.

If the "new" behaviors displayed by the target are not overly discrepant from his or her own self-image, these new behaviors may be internalized.

The "latitude of acceptance" for internalization or accommodation of self-perceptions to new behaviors may be rather wide (cf. Secord & Backman, 1965). Most people believe that they possess a wide variety of traits; witness their readiness to accept bogus personality descriptions in demonstrations of the P. T. Barnum effect (e.g., Meehl, 1956; Stagner, 1958; Ulrich, Stachnik, & Stainton, 1963). Moreover, most people believe that they often express apparently contradictory traits in different situations (Nisbett, Caputo, Legant & Marecek, 1973). Accordingly, a wide variety of perceivers' beliefs may be made to "stick" as a consequence of behavioral confirmation processes.

If the target's new behaviors generated by the behavioral confirmation process are internalized, then both the target and the perceiver will share perceptions of the target. What began in the mind of the perceiver will have become reality not only in the behavior of the target but also in the mind of the target. The target may then be prepared to act on this new self-perception in the contexts beyond those that include the original perceiver. Then the target may provide other perceivers with behavioral evidence consistent with the original perceiver's expectations and these new perceivers will treat the target accordingly.

Contemporary attribution theories (e.g., Jones et al., 1972) suggest that the internalization and perseveration of behavior are most likely to occur when targets accept their new behaviors as representative of their underlying personality traits (that is, when targets make dispositional self-attributions). By contrast, when targets attribute their new behavior to the specific influences of the perceiver and the context of their interaction (that is, make situational self-attributions), behavioral confirmation will be limited to interactions with that perceiver.

To investigate the process of behavioral confirmation and its perseveration over situations, we conducted an experiment in which one male participant (the "target") interacted on successive occasions with two other male participants (the "labeling perceiver" and the "naive perceiver") in a context designed to permit assessment of behavioral manifestations of hostility. Prior to the first interaction, the *labeling perceiver* was given access to information that led him to believe the *target* to be a hostile individual (Hostile Label condition) or a nonhostile individual (Nonhostile Label condition). This first interaction was structured so as to induce the target to regard his actions either as representative of corresponding personal dispositions (Dispositional Attribution condition) or as a reflection of transitory influences of the other participant's behavior (Situational Attribution condition). In the second interaction, the target interacted with a *naive perceiver* who had no prior expectations about the target's dispositions and no knowledge of his prior history. We expected that:

- (1) In the first interaction, between the labeling perceiver and the target,

the labeling perceiver's beliefs would receive behavioral confirmation: Targets believed to be hostile would actually come to display more behavioral manifestations of hostility than would targets regarded as nonhostile.

(2) Behavioral confirmation would persevere into the second interaction, between the naive perceiver and the target, only under Dispositional Attribution conditions: Those targets who had originally been labeled as hostile would continue to manifest more behavioral hostility than would those targets who had been labeled as nonhostile.

We first present our empirical demonstration of behavioral confirmation in social interaction, and then outline a theoretical account of the processes that we believe to underlie behavioral confirmation.

METHOD

Participants

One hundred and eight male undergraduates at the University of Minnesota participated in this experiment for extra credit in their introductory psychology course. Groups of three previously unacquainted participants were scheduled to report to separate waiting rooms. Each participant was randomly assigned to one of three "roles": labeling perceiver, target, or naive perceiver.

The First Interaction: Labeling Perceiver and Target

The experimenter escorted the labeling perceiver and the target to adjacent experimental rooms, leaving the naive perceiver in his waiting room. Each room was equipped with headphones, a telegraph key, and a signaling system that fed into a control room. Before learning about the experimental tasks, the labeling perceiver and the target each completed a "Trait Survey" questionnaire that consisted of 15 self-descriptive items. Five of these items set the stage for the soon-to-be-enacted label manipulation: sensitive-insensitive, submissive-self-assertive, kind-unkind, passive-aggressive, cooperative-competitive.

The experimenter then explained separately to each participant that he would compete in a reaction time task with an opponent in the next room. The competition was to consist of 24 trials grouped into eight blocks, each with three trials. On each trial, both players would respond as quickly as possible to a signal. The player with the faster reaction time would be the winner. Each player's wins and losses would be determined not only by his speed, but also by his clever and strategic use of a "noise weapon." The availability of this noise weapon was to alternate, block by block, between the players. At the onset of each block, the user of the noise weapon could adjust it to deliver one of six intensities of noise to his opponent for the duration of that block. A "1" level noise was generally regarded as inoffensive, a "3" level noise was typically perceived as distracting, and a "6" level noise was almost uniformly felt as offensively irritating and annoying, but not physically painful. Each player then experienced the relative intensity of each noise level. Use of the noise weapon constituted our dependent measure of the extent of behavioral hostility displayed by each participant.

The attribution manipulation—Part one. The first part of the attribution manipulation channeled the perspective that the targets would use in observing, encoding, and interpreting their behavior *during* the ongoing interaction (cf. the successful use of observational sets to influence attributional processes, e.g., Regan & Totten, 1975; Taylor & Fiske, 1975). To encourage targets in the *Dispositional Attribution* conditions to regard their noise weapon

usage as a reflection of their own personal characteristics and individual reactions to the task, the instructions stressed these points: (a) Previous research had indicated that "the loudness of the noise bursts most people choose to deliver to their opponent depends on the type of person they are and what they think is the best way of winning competitive reaction time tasks like this one"; (b) typically, a person performs best "if he uses the strategy that uniquely fits his capabilities and personality;" and (c) in planning his strategy, he should ask himself several questions, including: "Am I the kind of person who likes to use a competitive or cooperative strategy in situations like this?"

To encourage targets in the *Situational Attribution* conditions to construe their use of the noise weapon as a reaction to their opponent's treatment of them, the instructions stressed these points: (a) Previous research had indicated that "the loudness of the noise bursts most people choose to deliver to their opponent depends on how their opponent uses his noise weapon against them"; (b) typically, people perform best when they "devise their strategy by taking into account the strategy that their opponent has used and might use in the future"; and (c) in planning his strategy he should ask himself several questions, including: "Is my opponent the kind of person who will try to slow down my reaction time or intimidate me by delivering very loud noise bursts to me?"

The label manipulation. After hearing a description of the reaction time task, each *labeling perceiver* learned that, in order to help him plan his strategy, he would have access to his opponent's "Trait Survey" questionnaire. He received one of two questionnaires, prepared in advance, to induce him to view his opponent either as a hostile individual or as a nonhostile individual. Labeling perceivers who had been randomly assigned to the *Hostile Label* conditions learned that they were pitted against an opponent who loved contact sports and who described himself as relatively insensitive, self-assertive, cruel, aggressive, and competitive. By contrast, labeling perceivers in the *Nonhostile Label* conditions discovered that their opponents enjoyed writing poetry and sailing and thought of themselves as rather submissive, sensitive, passive, kind, and cooperative types.

Competition and use of the noise weapon. The experimenter then signaled both participants to put on their headphones for the first trial of the competition. He signaled the labeling perceiver to set his noise weapon for the first block of three trials.

Each trial consisted of four discrete events: (1) A noise weapon tone of the designated intensity was sounded in the headphones of either the target or the labeling perceiver; (2) the "ready light" flashed, telling both players to depress the telegraph key; (3) the release light flashed, signaling players to release the key as quickly as possible; and (4) the noise weapon tone was turned off. After each block of three trials, the noise weapon changed hands.

After the 24 trials, the labeling perceiver was escorted out of the experimental room and asked to record his final impressions of his opponent. The experimenter then invited the target to play a new opponent in a second session. He did not provide the target with any explicit feedback about his performance.

The attribution manipulation—Part two. To complete the cognitive work begun by the first part of the manipulation, the experimenter used verbal communications and specially-constructed questionnaires to channel the target's *retrospective observation and interpretation* of his previous behavior in the first interaction.

In the *Dispositional Attribution* conditions, the communication stressed that people usually interpret their use of the noise weapon as a reflection of "the type of person they are and also what they think is the best way to win in competitive tasks like this one." Moreover, the questionnaire contained questions written to encourage the targets to emphasize the influence of his own character and the nature of the task itself on his strategic use of the noise weapon; e.g., the final question asked, "How much do you think the intensity of noise bursts you delivered to your partner was a function of the way you as a person react to tasks of this type?" These items constituted an attempt to induce targets to formulate and accept the desired dispositional attributions (cf. biased questioning as a technique for influencing attitudes [Dillehay & Jernigan, 1970] and attributions [Salancik, 1976]).

Instructions in the *Situational Attribution* conditions fostered quite different attributions. These targets learned that individuals often pattern their use of the noise weapon to mirror and reflect "how their opponent uses his noise weapon against them." Again, a subtly-biased questionnaire aided them to bolster and consolidate their situational self-attributions; e.g., the final question asked, "How much do you think the number of noise bursts you delivered to your opponent was a function of his competitiveness?"

From a methodological standpoint, it might have been desirable to include, at this point in the procedure, a check on the effectiveness of the attribution manipulation. However, because the second part of the attribution manipulation consisted of a self-rating task, we did not want to risk sensitizing targets to the fact that this procedure was a manipulation by introducing more measures at that point. Moreover, as research on attributional processes makes painfully clear, it is all too often impossible to elicit accurate self-reports of attributional processes, even when participants behave precisely in accord with the dictates of these hypothesized attributional processes.

The Second Interaction: Naive Perceiver and Target

The experimenter escorted the naive perceiver into the room that had been occupied previously by the labeling perceiver and explained the reaction-time task to him. Naive perceivers were given *no* information about either the target's personal characteristics (that is, no label) or his previous interaction with the labeling perceiver.

Once again, there were three trials in each of the eight blocks of the interaction. This time, the target had first access to the noise weapon. It was, therefore, possible to assess the extent to which "hostile" targets would actually initiate hostility to the naive perceivers on the first block of trials. After the second session, all three participants were thoroughly educated about the purposes of the experiment.

RESULTS

We examined the effects of the label and attribution manipulations on: (a) behavioral confirmation in the first interaction; and (b) perseveration of behavioral confirmation in the second interaction.

Behavioral Confirmation of Hostility

Did the labeling perceivers initiate a chain of events that ended in the behavioral confirmation of their beliefs about their targets? We first examined the manner in which *labeling perceivers* translated their information about the personalities of their targets into actual *behavioral strategies* for coping with that person as an opponent in the competitive task. Their strategy was to use higher intensity levels of the noise weapon when confronted with a reputedly hostile individual. When the noise weapon was available to them, 61.1% of labeling perceivers who anticipated hostile partners used intensities that averaged in the "4", "5", and "6" range. By contrast, only 27.7% of labeling perceivers who expected nonhostile partners adopted this upper-range strategy. This difference is highly reliable, $z = 2.02$, $p < .03$.

Our faith that the use of the use of the upper noise levels was the defining characteristic of the labeling perceivers' strategies was bolstered

by the perceivers' accounts of their actions offered during debriefing; for example, "When the man says on the questionnaire that he's a *little bit* cruel, you *know* he means to play tough. 'Course I'm gonna give him the loud ones"; "My old roommate was a boxer, and he was always aggressive. He was always getting into arguments. I figured this guy was like him, so I gave him some loud ones"; "Aggressive people play hard. I was just playing his game."

As a consequence of the labeling perceivers' treatment of them, the targets soon began to behave in a hostile or nonhostile fashion. For when the labeling perceivers initiated hostility, the targets reciprocated these hostile overtures. To assess this *behavioral confirmation* effect, we computed for each *target* an index of behavioral hostility by averaging the intensity of noises he delivered to his opponent throughout the first interaction. An examination of the means displayed in the first row of Table 1 reveals that targets whose perceivers believed them to be hostile individuals delivered higher levels of noise than did targets whose perceivers viewed them as nonhostile persons. A least squares analysis of variance yielded a reliable main effect of the label manipulation, $F(1,32) = 5.82, p = .02$. There was neither a reliable main effect of the attribution manipulation nor any interaction between the two factors (both $F_s < 1$). Therefore, changes in the targets' behavior during the first interaction cannot be explained in terms of prior changes in self-perception. It was not

TABLE 1
BEHAVIORAL CONFIRMATION IN SOCIAL INTERACTION

	Dispositional attribution		Situational attribution	
	Hostile label	Non-hostile label	Hostile label	Non-hostile label
Behavioral confirmation of hostility: the first interaction ^a	4.12	3.17	3.92	3.02
Labeling perceivers' final impressions of targets ^b	3.83	2.64	3.39	2.83
Perseveration of behavioral confirmation: the second interaction ^c	4.30	2.70	3.35	3.77
Naive perceivers' final impressions of targets ^d	3.66	2.75	3.12	3.34

^a Range = 1, 6. Higher mean indicates greater behavioral display of hostility as assessed by intensity of "noise weapon" usage by targets during the first interaction.

^b Range = 1.5, 4.66. Higher means indicate greater perceived aggressiveness.

^c Range = 1, 6. Higher means indicate greater behavioral display of hostility as assessed by intensity of "noise weapon" usage by targets during the second interaction.

^d Range = 1.33, 4.66. Higher means indicate greater perceived aggressiveness.

that targets decided that they were hostile or nonhostile persons and then acted upon these new self-perceptions. Rather, it seems that targets behaviorally reciprocated the hostile or nonhostile overtures of the labeling perceivers. Accordingly, the first interaction produced behavioral confirmation of the labeling perceivers' initially erroneous expectations about the hostile or nonhostile natures of their targets. Nonetheless, as we shall soon see, subsequent shifts in the targets' self-perceptions, induced by the attribution manipulation, did affect their behavior in their later interaction with the naive perceivers.

Clearly, targets came to behave in accord with the labels with which they had been "tagged" by the labeling perceivers. Moreover, the labeling perceivers seemed willing to interpret the behavior that they themselves had generated in their targets in terms of the dispositions of the targets. After their interaction, labeling perceivers in the Hostile Label conditions perceived their opponents to have much more aggressive natures (see Table 1, second row) than did perceivers in the Nonhostile Label conditions, $F(1,32) = 9.97, p = .004$. Neither the main effect of attribution conditions, $F < 1$, nor the interaction between label and attribution condition, $F = 1.25$, were reliable. At the very least, these results confirm the effectiveness of the label manipulation. More intriguing, yet, is the possibility that the labeling perceivers may have committed a "fundamental error" of attribution (Ross, 1977); they may have attributed their opponents' hostile or nonhostile behavior to their opponents' general dispositions and not to the actual impact of their interaction with the opponent.

Perseveration of Behavioral Confirmation over Situations

Behavioral confirmation persevered into the second interaction between the target and the naive perceiver only under Dispositional Attribution conditions (see Table 1, third row). As predicted, there was a reliable interaction between the label and attribution conditions, $F(1,32) = 6.67, p = .01$. Planned comparisons revealed that under the Dispositional Attribution conditions, targets who had once been labeled as hostile now continued to behave in more hostile fashion than targets who had originally been labeled as nonhostile, $F(1,32) = 8.31, p < .01$; in contrast, under Situational Attribution conditions, the original labels no longer had any impact on the behavior of the targets, $F < 1$. Moreover, these effects were apparent even on the first block of trials, interaction $F(1,32) = 4.85, p = .03$. Thus, even before the targets (who had access to the noise weapon on the first block) could observe the naive perceivers' use of the noise weapon, they initiated hostile or nonhostile treatment of them.

Having no reason to suspect otherwise, the naive perceivers regarded their partners' actions as representative of their true natures. As the pattern

of means presented in the fourth row of Table 1 indicates, there was a substantial interaction between label and attribution, $F(1,32) = 6.42$, $p = .02$. Under Dispositional Attribution conditions, naive perceivers viewed targets who had once been labeled as hostile as much more aggressive individuals than targets who had originally been tagged with the nonhostile label, planned comparison $F(1,32) = 6.70$, $p = .01$. In contrast, naive perceivers under Situational Attribution conditions did not form different impressions of targets as a function of their original labels, planned comparison $F < 1$. These differences of course parallel the actual behavioral differences of the targets in the second interaction.

DISCUSSION

Of what importance are our impressions and perceptions of others? Our empirical investigation suggests that social perceptions can and do exert powerful channeling effects on subsequent social interaction such that actual behavioral confirmation of these beliefs is produced. Even initially erroneous impressions may become real. Social perceptions may truly function as self-fulfilling prophecies:

The self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behavior which makes the originally false conception come true. The specious validity of the self-fulfilling prophecy perpetuates a reign of error. For the prophet will cite the actual course of events as proof that he was right from the very beginning. Such are the perversities of social logic (Merton, 1957, p. 423).

True to Merton's (1957) script, our "prophets," in the beginning, created false definitions of their situations: they erroneously (as a result of the experimental manipulation) believed their targets to be hostile or nonhostile persons. But these attributional errors became self-erasing errors. For the perceivers' false definitions evoked new behaviors that made their originally false conceptions come true: They treated their targets as hostile or nonhostile persons and, indeed, these targets responded in kind and began to behave in hostile or nonhostile fashion.

Unlike Merton's scenario, ours did not end. Some of our targets who regarded their actions as reflections of personal dispositions actually came to believe that they were generally of hostile or nonhostile character. For these targets, the process of behavioral confirmation extended and persevered beyond the bounds of the original confirmation interaction. They behaved in a hostile manner not only toward the perceivers who first had regarded them as hostile, but also toward others in new and different social contexts. They had become truly hostile persons, whose behavior reflected the cross-situational consistency and temporal stability that are hallmarks of personality traits and dispositions. The product-moment correlation between hostile behavior in the two interaction situations for targets in the Dispositional Attribution conditions ($r = .90$) was

substantially larger than that for targets in the Situational Attribution conditions ($r = .44$), $z = 2.74$, $p = .003$. We had apparently succeeded in socializing, within the confines of our laboratory, a "trait" of hostility.

Behavioral Confirmation: A Theoretical Perspective

Our empirical investigation has demonstrated that a perceiver's initially erroneous beliefs about a target individual may initiate a chain of events that channel subsequent social interaction in ways that cause the behavior of the target to confirm the perceiver's beliefs. It is now time to consider, from a theoretical perspective, the processes that may underlie and generate behavioral confirmation.

We view the unfolding over time of the events of the behavioral confirmation process in terms of those critical cognitive activities of perceiver and target by which each formulates strategies of action. The first "link" in the "chain" of behavioral confirmation is that between the labeling perceiver's beliefs about his partner (e.g., "he is a hostile person") and the actions generated by those beliefs (e.g., "I will use my noise weapon against him"). We view this link between thought and action as a form of "reality-testing." Social labels and attributions may serve as grounds for predictions and generate behaviors designed to validate or invalidate these beliefs (cf. Kelly, 1955). The formation and testing of these hypotheses may be guided by "scripts" (cf. Abelson, 1976) or "rules of thumb." These rules of thumb are scenarios involving sequences of events and consequences and reflect implicit theories of the interplay between persons and their situations. Thus, a perceiver in the Hostile Label condition of our experiment might (literally or metaphorically) say to himself: "If he is as mean and nasty as I think he is, then he will seize the first attempt to attack me with his noise weapon. Perhaps I can forestall that with a show of force. One good blast of a "6" level of my noise weapon and he will know not to play tough with me. Anyway, better to get to him before he gets to me." He may bolster this line of thought with instances from his own life experiences or those of acquaintances where such a strategy has been successful. Moreover, he may remind himself of specific individuals, similar in personality to the target, who would clearly deserve the treatment he now plans for the target (cf. Abelson's, 1976, discussion of the use of scripts in decision-making and behavior-planning). Having symbolically formulated his strategy, the perceiver proceeds to test his hypothesis behaviorally.

But the hypothesis-testing process itself may generate behaviors that erroneously confirm the prediction and validate the attribution-based hypothesis. For the targets themselves, no doubt, formulate their strategies of coping with their opponents using similar rules of thumb (e.g., "If this guy, for no reason apparent to me, starts off with so much hostility, he

leaves me no option but to respond in kind with equally intense blasts of the noise weapon. When attacked, defend yourself; fight fire with fire.”) and assimilate their behavior to that of the perceiver.

Our perceivers may have created for themselves a situation not unlike that of Kelly's (1955) example:

A man construes his neighbor's behavior as hostile. By that he means that his neighbor, given the proper opportunity will do him harm. He tries out this construction of his neighbor's attitude by throwing rocks at his neighbor's dog. His neighbor responds with an angry rebuke. The man may then believe that he has validated his construction of his neighbor as a hostile person (Kelly, 1955, pp. 12–13).

Perhaps both Kelly's hypothetical actor and our labeling perceivers may commit the classic attribution error (cf. Ross, 1977): They may attribute the targets' behavior to corresponding inner dispositions rather than to the constraints of the reality-testing procedure. They seem blissfully unaware, as are Merton's prophets, of the causal role that their own activities play in generating the behavioral evidence that erroneously confirms their expectations, inferences, and attributional labels. Unbeknownst to them, the reality that they perceive to exist “out there” in the social world has in fact been constructed by their own transactions with the social world. *Reality-testing* has become *reality-construction*. It is not that the perceivers are unaware of their beliefs or their actions based upon those beliefs. It is that they seem to be unaware of their impact on the behavior of others; that how others treat them is partially a reflection of how they first treated those others.

According to the theoretical analysis of behavioral confirmation as reality-testing, the perceiver's activity is conceptualized as the cognitive formulation and the behavioral testing of hypotheses. Behavioral confirmation is seen as the unintended reality constructing consequence of reality-testing: Perceivers as reality-testers unknowingly fail to take adequate account of the biased nature of their hypothesis-generating and hypothesis-testing procedures. But how appropriate is it to regard perceivers in this investigation as reality-testers? After all, they were not explicitly instructed to test the accuracy of their beliefs about the targets' natures. Perhaps, rather than testing reality, perceivers were simply coping with the reality of their targets' natures. However, from our theoretical perspective, reality-testing is in practice no different than reality-coping. When perceivers are in doubt about the accuracy of their beliefs about targets, they may test the reality of these beliefs by treating targets “as if” these beliefs were accurate. When perceivers have no uncertainty about the reality of their beliefs, they may (quite reasonably) cope by treating targets “as if” they were the persons they are reputed to be. In either case—whether reality-testing or reality-coping—perceivers use their beliefs about the target to formulate interaction strategies of treating targets

“as if” their initial beliefs were accurate. In either case, behavioral confirmation may be the outcome of such “as if” strategies.

Behavioral Confirmation and the Nature of Social Perception

Whatever the ultimate fate of our admittedly speculative analysis of behavioral confirmation as reality-testing, the theoretical implications of the behavioral confirmation process itself cannot be ignored or minimized. Researchers in social perception and the attribution process have focused almost exclusively on the manner in which individuals process information provided to them as they form impressions of other people. This information processing is typically studied in static circumstances of minimal personal involvement for the perceiver (cf. Taylor, Note 1; Taylor & Fiske, Note 2). Such an approach may unfortunately blind us to the intimate interplay between social perception and social interaction in ongoing interpersonal relationships. Our investigation of behavioral confirmation suggests that traditional information processing approaches may seriously underestimate the extent to which the information that perceivers process in actual social interaction is a product of the perceiver's own actions toward their targets, actions that may be based upon and guided by their beliefs about those targets.

From our perspective, the perceiver's knowledge of the target may be seen as active, initiatory cognitive structures or conceptual schemas that guide and influence the processing of information about the target, the search for new information about the target, and the course of social interaction between perceiver and target. The perceiver's knowledge of the target includes anticipations of what events are to appear as the interaction unfolds. It may be easier to construct mental scenarios in which the target acts in accord with the perceiver's beliefs. Accordingly, it is these “as if” scenarios (rather than “as if not” scenarios, in which the target violates the perceiver's expectations) that the perceiver may use to guide his or her actions toward the target. As a consequence of this process, the target's behavior may be constrained in ways that generate confirming evidence for the perceiver's anticipations. Behavioral confirmation is then an end product of the chain of events first initiated by the perceiver's beliefs.

Our investigation suggests that a cognitive social psychology must pay explicit attention to the ways by which perceivers *create* the information that they process in addition to probing the machinery of information processing itself. Not only are our images of the social world a reflection of events in the social world, but the very events of the social world themselves may be reflections and products of our images of the social world.

Contemporary viewpoints in cognitive and perceptual psychology have emphasized the active, integrative, and constructive aspects of human

information processing (e.g., Bower, 1975; Klatzky, 1975; Neisser, 1976). Our viewpoint, although clearly compatible with this constructivist perspective on the formation of knowledge, goes at least one important step beyond this approach. Not only is knowledge (at least in the domain of social cognition) the product of active, constructive processes, but the very events that serve as the "raw materials" for this information-processing are themselves the product of active, constructive processes generated by the individual's beliefs. It is in this sense that beliefs can and do create social reality.

REFERENCES

- Abelson, R. P. Script processing in attitude formation and decision making. In J. S. Carroll & J. W. Payne (Eds.), *Cognition and social behavior*. Potomac, Md.: Erlbaum, 1976.
- Becker, H. W. *Outsiders: Studies in the sociology of deviance*. New York: The Free Press, 1963.
- Bower, G. H. Cognitive psychology: An introduction. In W. K. Estes (Ed.), *Handbook of cognition and learning*. Hillsdale, N. J.: Erlbaum, 1975.
- Dillehay, R. C., & Jernigan, L. R. The biased questionnaire as an instrument of opinion change. *Journal of Personality and Social Psychology*, 1970, **15**, 144-150.
- Goffman, E. *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs: Prentice-Hall, 1963.
- Jones, E. E., Kanouse, D., Kelley, H. H., Nisbett, R. E., Valins, S., & Wiener, B. (Eds.), *Attribution: Perceiving the causes of behavior*. New York: General Learning Press, 1972.
- Jones, S. C., & Panitch, D. The self-fulfilling prophecy and interpersonal attraction. *Journal of Experimental Social Psychology*, 1971, **7**, 356-366.
- Kelley, H. H., & Stahelski, A. J. The social interaction basis of cooperators' and competitors' beliefs about others. *Journal of Personality and Social Psychology*, 1970, **16**, 66-91.
- Kelly, G. A. *The psychology of personal constructs*. New York: Norton, 1955.
- Klatzky, R. L. *Human memory: Structure and processes*. San Francisco: W. H. Freeman & Co., 1975.
- Kuhlman, D. M., & Wimberley, D. L. Expectations of choice behavior held by cooperators, competitors, and individualists across four classes of experimental game. *Journal of Personality and Social Psychology*, 1976, **34**, 69-81.
- Meehl, P. E. Wanted—A good cookbook. *American Psychologist*, 1956, **11**, 263-272.
- Merton, R. K. *Social theory and social structure*. Glencoe, Ill.: The Free Press, 1957.
- Miller, D. T., & Holmes, J. G. The role of situational restrictiveness on self-fulfilling prophecies: A theoretical and empirical extension of Kelley and Stahelski's triangle hypothesis. *Journal of Personality and Social Psychology*, 1975, **31**, 661-673.
- Neisser, U. *Cognition and reality: Principles and implications of cognitive psychology*. San Francisco: W. H. Freeman, 1976.
- Nisbett, R. E., Caputo, C., Legant, P., & Marecek, J. Behavior as seen by the actor and as seen by the observer. *Journal of Personality and Social Psychology*, 1973, **27**, 154-165.
- Regan, D. T., & Totten, J. Empathy and attribution: Turning observers into actors. *Journal of Personality and Social Psychology*, 1975, **32**, 850-856.
- Rosenthal, R. *On the social psychology of the self-fulfilling prophecy: Further evidence for Pygmalion effects and their mediating mechanisms*. M. S. S. Modular Publications, 1974.

- Rosenthal, R., & Fode, K. L. Three experiments in experimenter bias. *Psychological Reports*, 1963, **12**, 491-511.
- Ross, L. The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10). New York: Academic Press, 1977.
- Salancik, G. R. Extrinsic attribution and the use of behavioral information to infer attitudes. *Journal of Personality and Social Psychology*, 1976, **34**, 1302-1312.
- Secord, P. F., & Backman, C. W. An interpersonal approach to personality. In B. Maher (Ed.), *Progress in experimental personality research* (Vol. 2). New York: Academic Press, 1965.
- Schur, E. M. *Labeling deviant behavior: Its sociological implications*. New York: Harper & Row, 1971.
- Scott, R. A. *The making of blind men*. New York: Russell Sage, 1969.
- Stagner, R. The gullibility of personnel managers. *Personnel Psychology*, 1958, **11**, 347-352.
- Szasz, T. *The myth of mental illness*. New York: Hoeber, 1961.
- Tannenbaum, F. *Crime and the community*. Boston: Ginn, 1938.
- Taylor, S. E., & Fiske, S. T. Point of view and perceptions of causality. *Journal of Personality and Social Psychology*, 1975, **32**, 439-445.
- Ulrich, R. E., Stachnik, T. J., & Stainton, N. R. Student acceptance of generalized personality interpretations. *Psychological Reports*, 1963, **13**, 831-834.

REFERENCE NOTES

1. Taylor, S. E. *A social psychology of salience: Perspective in attribution processes*. Paper presented at the New England Social Psychological Association, 1975.
2. Taylor, S. E., & Fiske, S. T. *Salience, attention, and attribution: Top of the head phenomena*. Unpublished manuscript, Harvard University, 1977.