Self-Concept Change and Self-Presentation: The Looking Glass Self Is Also a Magnifying Glass

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How do people change their views about themselves? Psychological theory and evidence have provided ample evidence that self-concepts resist change and maintain stability (e.g., Maracek & Mettee, 1972; McFarlin & Blascovich, 1981; Sullivan, 1953; Swann, 1983, 1987; Swann & Ely, 1984; Swann & Hill, 1982; Swann & Predmore, 1985; Swann & Read, 1981). Yet occasionally people do change; indeed, such change is considered desirable in some settings, including psychotherapy and assertiveness training.

Research by social psychologists has recently produced one paradigm for studying and analyzing self-concept change. In this paradigm, people are induced to behave in a particular way, and their subsequent self-ratings show that they come to regard themselves as having the traits implied by their overt behavior (e.g., Fazio, Effrein, & Falender, 1981; Gergen, 1965; Jones, Rhodewalt, Berglas, & Skelton, 1981; Kulik, Sledge, & Mahler, 1986; Rhodewalt & Agustsdottir, 1986; Schlenker & Trudeau, 1990; Tice, 1987). This tradition is partially an outgrowth of research on cognitive dissonance, which showed that people who are induced to make initially counterattitudinal opinions come to hold those opinions (e.g., Collins & Hoyt, 1972; Cooper & Fazio, 1984; Kiesler, 1971; Riess & Schlenker, 1977; Schlenker, 1982; Schlenker & Goldman, 1982; Schlenker & Schlenker, 1975; Wicklund & Brehm, 1976), especially if the person is publicly identified with the behavior (e.g., Baumeister & Tice, 1984; Carlsmith, Collins, & Helmreich, 1966; Helmreich & Collins, 1968; Paulhus, 1982).

Theories about the mechanism behind self-concept change have been focused on intrapsychic processes, particularly biased scanning (see especially Jones et al., 1981). Biased scanning is a self-perception process in which behavior calls the individual's attention to certain aspects or potentialities of the self, which are then highly accessible and therefore exert a powerful influence on subsequent self-assessment. In principle, this pattern of self-perception occurs inside the individual and does not involve other people, but the experiments designed to test the theory have invariably included the presence of other people to create public, interpersonal contexts. This discrepancy between private, intrapsychic processes in theory and public, interpersonal settings in empirical practice stimulated the present investigation. More precisely, the purpose of this article was to examine whether performing an action publicly has any impact on the self-concept over and above the effects of performing the same behavior privately. The core hypothesis was that interpersonal factors provide the motivating force that makes self-concept change work. This work is not intended to discredit biased scanning theory but rather to revise and extend it.

Biased Scanning and Internalization

The term internalization can be used to refer to the act of bringing one's private concept of self into agreement with one's recent behavior (e.g., Festinger & Carlsmith, 1959). Internalization is thus a potentially important mechanism for self-concept change.

Research on internalization has been guided by theorizing about cognitive processes set in motion by one's own behavior. For example, Jones et al. (1981) and Rhodewalt and Agustsdottir (1986) found that induced behavior caused self-concepts to shift so as to reflect an internalization of the overt behavior, and they suggested two cognitive mechanisms for these self-concept shifts. First, cognitive dissonance (which arose from...
behaving in a manner inconsistent with one's beliefs about oneself) was reduced by changing the beliefs about the self. Second, in biased scanning, the induced behavior directs attention toward certain aspects of the self-concept, and so self-evaluations shift in the direction of the salient cognitions. For example, inducing generous behavior may make the self's trait of generosity salient.

Likewise, Fazio et al. (1981) found that responding to situational constraints such as answering loaded questions that pulled for introverted or extraverted responses affected their subjects' self-concepts. When their subjects were subsequently asked to think of themselves on an introversion-extroversion dimension and were given a chance to behave in a manner consistent with their self-concepts, subjects' self-concepts came to include the traits implied by their publicly presented behavior. These researchers too explained their findings in cognitive terms, specifically self-perception. They suggested the loaded questions asked in the public interview made the subjects consider their own introverted or extraverted behavior in a biased manner. If the loaded questions pulled for extraverted responses, extraverted behavior was more salient to the subjects, whereas if the questions pulled for introverted responses, introverted behavior was more salient. As a result, subjects' self-concepts shifted toward agreement with their behavior.

Similarly, Markus and Kunda (1986) induced subjects to be unique or very similar to others; afterward, subjects' self-concepts were subtly affected by the label. Like Jones et al. (1981) and Fazio et al. (1981), Markus and Kunda provided a cognitive explanation, asserting that these effects "resulted from a change in the accessibility of particular self-conceptions" as a result of the prior social interaction (p. 865).

Thus, researchers have generally explained evidence of internalization in terms of accessibility or salience of information to the self. Internalization was interpreted as occurring because subjects focused their attention on instances of their past behavior that supported their self-presentation. For example, an individual who just presented himself or herself positively to an audience was described as having more positive than negative information about the self immediately accessible in memory (Jones et al., 1981). A person who was induced to respond to loaded questions in an introverted manner was described as having more instances of past introverted behavior available to be incorporated into the working self-concept (Fazio et al., 1981). Given the weight of the evidence just described, there appears to be some support for the assertion that biased scanning leads to self-concept shifts. However, a full explanation may involve further complexities beyond these purely cognitive analyses. Salience and accessibility may be responsive to interpersonal cues.

Self-Presentation and Social Reality

Although the phenomenon of the self-concept shift has often been explained in terms of intrapsychic changes (e.g., in accessibility), the experimental procedures eliciting self-concept change have typically involved interpersonal events. Indeed, most studies demonstrating internalization have used public self-presentations or social interactions to instigate the self-concept shift, even though the biased scanning theories seemingly would operate just as well on private behavior. The importance of an interpersonal context was not specified in these versions of the biased scanning model of self-concept change, but if the empirical findings were indeed dependent on that context, then the biased scanning model would need to be extended to encompass the role of interpersonal factors. The present investigation was specifically concerned with establishing whether interpersonal factors do indeed play an important role in self-concept change.

To study interpersonal factors, I relied heavily on the subjective distinction between public and private behavior. Public behavior is known to other people, and in fact the performing individual knows or expects that his or her behavior will be both known to others and linked by them to his or her identity. Private behavior can be defined as behavior that is exempt from those criteria; thus, it is behavior that is not known to others or, if it is known, cannot be linked to the individual's identity. Anonymous or confidential acts are prototypes of private behavior. To be sure, in a laboratory setting, no behavior is truly private (as Tetlock & Manstead, 1985, argued), because the subject may think that it will potentially be observed by others, as it usually is. However, it is possible to convince subjects that their behavior will be effectively anonymous or untraceable to their identities, such as (in the present case) by having subjects furnish anonymous responses and put them in sealed envelopes. In such cases of private behavior, interpersonal motivations, such as to conform to others' expectations or to make a good impression, become irrelevant.

In their influential article, Tetlock and Manstead (1985) issued a call for greater conceptual integration of cognitive and self-presentational processes. A key point in their discussion of the field of self-presentation was that impression management and intrapsychic cognitive processes are not mutually incompatible forms of explanation. The present research is in part a response to Tetlock and Manstead's (1985) call for integration and exploration of whether self-presentation has substantial intrapsychic (cognitive) effects. I shall attempt to examine the effects of self-presentation on the self-concept by testing the hypothesis that the publicness of one's actions can increase the impact of behavior on the self-concept.

Research has suggested that public events can have more impact on self-evaluations than private events. For example, Baumeister and Tice (1984) found that subjects in a cognitive dissonance paradigm who had publicly performed the counter-attitudinal behavior internalized the presented attitude to a greater degree than subjects whose presentations were private. Baumeister and Jones (1978) found that public evaluations had greater impact on the self-concept (in the domain of the evaluation) than did private evaluations, and Greenberg and Pyszczynski (1985) found this to be true even when the self-regard measures were considered to be private (although both of these studies were concerned with the effects of evaluations on the self-concept, rather than self-concept changes resulting from internalization of behavior as in the present study). If public behavior does have a greater impact on the self-concept than private behavior, then the internalization of a behavior may be more effective and powerful if the behavior is public than if it is private.
Social interactions provide additional impact that may supplement the internalization that occurs as a result of biased scanning. In keeping with a long tradition (e.g., Cooley, 1902; James, 1890; Mead, 1934), most researchers of the self acknowledge the importance of social interaction in constructing and modifying the self-concept (e.g., Baumeister, 1982, 1986; Gollwitzer, 1986; Rhodewalt, 1986; Schlenker, 1986; Wicklund & Gollwitzer, 1982). Because the self is publicly constructed and exists in relation to others, public events should have greater impact on the self-concept than private events. Public behavior implicates the self more than private behavior: Private behavior can be canceled, ignored, or forgotten, but public behavior cannot, because other people know about it. Public behavior may be more carefully monitored and processed than private behavior, resulting in greater internalization.

Hence, in the studies that follow, greater internalization was predicted after public acts than after private acts. If public behavior does indeed produce greater self-concept changes than private behavior, several possible mechanisms can be suggested. At one extreme, one might suggest that the internalization effects are superficial or insincere responses to social situations or are the result of some labeling process by which the person simply applies a verbal label to the self and continues to use it later. Such effects would presumably be found mainly on verbal measures rather than on behavioral ones. On the other hand, if public events are experienced and regarded as being more important than private ones, internalization may be greater in public than in private. Public events may simply increase the power of the mechanisms of biased scanning and altered accessibility.

One could conceivably make the opposite prediction, namely that private behavior would have more impact than public behavior. Public behavior, after all, is elicited partly by external, situational demands, and so a thoughtful person might discount it (see Kelley, 1971, on discounting) and regard private behavior as more truly diagnostic of inner traits. My own analysis, however, would emphasize subjective importance rather than diagnosticity, and there seems to be little doubt but that public behavior is subjectively more important than private behavior. Issues of reputation, accountability, and social relationships make it imperative that people keep track of how their actions are perceived by others, whereas private behavior does not carry that additional weight. Moreover, in public situations people may be attending to other people, leaving fewer cognitive resources available for analyzing the attributional implications of their own actions (Baumeister, Hutton, & Tice, 1989), and so they may fail to discount their own actions as being externally manded. Hence, it seemed likely that the increased subjective importance of public behavior would outweigh the attributional advantages of private behavior and result in the greater degree of internalization.

Study 1 sought to verify that self-concept change is greater after public than after private behavior. Study 2 replicated the findings of Study 1 using a different self-concept dimension (i.e., a different trait) and also sought to determine whether the impact is limited to transient shifts in verbal self-ratings or is reflected in behavior as well. Study 3 sought to determine whether some components of a public situation, such as expectation of future interaction, self-referenced (vs. yoked) presentation, and choice influenced the internalization of behavior.

Study 1: Publicness and Internalization

The purpose of Study 1 was to establish that public circumstances increase internalization and self-concept change following from a person's behavior. To do this, it was necessary to elicit identical behaviors in public and private settings and measure the degree of internalization of the behavior.

Individuals were asked to portray themselves as either emotionally stable or as emotionally responsive. Control groups were added that requested that participants portray themselves in a manner that was irrelevant to the subsequent dependent variable. Participants were asked to portray themselves in the requested manner either publicly to another person who could identify them, or (relatively) privately and anonymously. To ensure that behavior was identical in both public and private conditions, participants' self-portrayals were rated for extensiveness of self-presentation. If no differences emerged between public and private groups on extensiveness of presentation ratings, then the assumption can be made that self-presentations were not more detailed or extensive in public than in private (or vice versa).

An interaction between publicness and self-presentation was predicted for the main dependent variables, in which participants in the public condition would internalize their behavior to a greater extent than participants in the private condition. Participants in the public conditions were expected to rate themselves as being more similar to their previous presentations than participants in the private conditions.

Method

Participants and Design

Ninety introductory psychology students volunteered to participate. (Four additional participants were excluded because of equipment failure or other failure to complete the procedure.) The 57 women and 33 men were distributed approximately equally across the four conditions. The experiment consisted of a 2 (public vs. private) × 3 (emotionally stable self-portrayal vs. emotionally responsive self-portrayal vs. irrelevant self-portrayal) design.

The Cover Story and Overview

Participants were told that the study involved the detection of personality traits in others' self-descriptions, and participants were requested to serve as stimulus persons for judgments made by other students. Participants were told that graduate students in training for degrees in clinical psychology would view participants' self-portrayals to test whether they could detect which participants really possessed the trait they claimed to possess. Participants were asked to portray themselves as possessing a given personality trait for the purposes of the study, regardless of whether they actually possessed that trait. One third of the participants were instructed to portray themselves as having high emotional stability and one third were instructed to portray themselves as having high emotional responsiveness to situations. The remaining one third of participants served as a control group and portrayed themselves in a manner irrelevant to the subsequently assessed trait (they portrayed themselves as exceptionally athletic). Half of the participants in each group performed the behavior in a highly identifi-
able, public manner, whereas the other half of the participants in each group performed the behavior under relatively anonymous conditions. After portrayal of the behavior, participants were asked to rate their "true selves" on emotional stability—responsiveness dimensions.

In all three self-portrayal descriptions (emotionally responsive, emotionally stable, and athletic), the trait the participant was asked to portray was described positively. Participants in the emotionally responsive conditions were asked to present themselves as the type of person who reacts to situations with fairly strong (although appropriate) emotional responses and as someone who is responsive to the different aspects of the situations and reacts with appropriate emotional responses—not as someone who is depressed the time or angry all the time or optimistic all the time, but rather as someone who responds distinctly and differently to different emotion-producing situations. Participants in the emotionally stable conditions were asked to present themselves as the type of person who maintains a degree of emotional stability in the face of the ups and downs of everyday life and does not experience extreme intensities or wild emotional fluctuations (as opposed to a highly moody person with intense and unpredictable emotional responses). Participants in the athletic conditions were asked to present themselves as the type of person who enjoys participating in athletic events and activities and often does so. Participants were asked to draw on examples of their own past behavior in answering the questions for the self-portrayal. They were instructed that, rather than lying or making up responses to the questions, they should focus their responses to the questions on selected examples from their past behavior that supported the portrayal they were trying to make (even if those few examples were not representative of their true nature).

Procedure

Participants came to the laboratory individually, were given a detailed description of the cover story, and were told they could choose not to participate if they felt they were completely unable to portray themselves in the prescribed manner (participants were either asked to portray themselves as emotionally stable, as emotionally responsive, or, in the control condition, as athletic; see the section on cover story and overview, earlier in this article). All participants chose to continue in the experiment (perhaps because the traits they were asked to portray were all described as positive characteristics, all participants may have felt that they had some instances of the trait in their backgrounds to draw on for the self-portrayal).

Participants were given a list of questions and were told that their opportunity for self-portrayal would consist of providing answers to those questions. The questions asked about past relationships with same-sex and opposite-sex friends, family plans, extracurricular activities, and the most important thing learned in college. They were then asked to sign a consent form agreeing to allow their responses to the questions to be tape recorded for future analysis. All participants agreed to the recording of their responses. They were told they would have a few minutes to look over the questions and compose their responses on the basis of incidents from their past.

All participants were shown into a room with a one-way mirror. For participants in the public condition, the experimenter indicated that the graduate student would be interviewing the participant from the room behind the mirror. The experimenter indicated that the graduate student was already in the room and thus could see the participant. She told the participant to wave to the graduate student (so that the participant would feel highly visually identifiable) before she pulled the curtain closed. She then pulled the curtain closed completely so that the participant would not be subject to the self-focusing effects of the mirror during the interview and self-portrayal. For participants in the private condition, the experimenter indicated that, although the room contained a one-way mirror, participants would not be observed while they responded to the questions. The experimenter emphasized that participants would remain anonymous and insisted on drawing the curtain to assure participants that they had complete confidentiality. After drawing the participant's attention and gaze to the mirror (to equal any mirror-induced self-focusing effects of the public condition), the experimenter closed the curtain completely.

Participants were told that they would be answering questions over an intercom system. The experimenter demonstrated how to operate the intercom. Participants in the public condition were told that when the tone sounded, they were to identify themselves to the graduate student. They were instructed to provide their names, ages, majors, hometowns, and dormitories to the graduate assistant. They were told that this information helped the graduate student "get to know them better" before beginning the interview. They were told that the graduate student would hear their responses; their responses would also be tape recorded for future coding. Participants in the private condition were told that, because of the personal nature of the questions, it was essential that they avoid any identifying information in their self-portrayals. They were told that when the tone sounded, they were to identify themselves only by providing their subject number, age, and gender. Participants in the private condition were led to believe that the graduate student would evaluate their responses to the questions would do so at a different time by listening to the tape recording of their responses. All participants were told that only the graduate student who was being evaluated would listen to the participant's responses; in particular, the experimenter would not listen to their responses. This was done to help reduce the desire on the part of the participants to appear consistent to the experimenter. They were instructed to push a button signaling the experimenter when they finished responding.

After responding to the five interview questions over the intercom system, all participants were told that the experimenter wanted them to rate themselves on a couple of questionnaires so that the experimenter would have a measure of their "true" personalities to compare with the graduate student's ratings. At this point participants completed a single-item rating of their own level of emotional responsiveness—stability (the main dependent measure). Participants rated themselves in response to the following: "Thank you very much for your cooperation and for helping us by presenting yourself as the type of person with [either high emotional responsiveness or high emotional stability]. In order for us to best understand our data, it would also be helpful to us to know how emotionally responsive—stable] you really are, as that may have affected your ability to portray a person with high emotional responsiveness—stability]. On a scale of 1–25, how would you rate your own degree of emotional responsiveness—stability?" Please circle the X that best represents your self-rating (your own beliefs about your true emotional responsiveness—stability)." Endpoints were labeled highly emotionally stable (unresponsive) and highly emotionally responsive (unstable). Participants in the control condition were thanked for their presentations and were requested to fill out the self-rating forms to provide the experimenter with a measure of their personalities. All participants subsequently filled out the Affect Intensity Measure (AIM; Larsen, Diener, & Emmons, 1984), which constituted the supplemental dependent measure. The AIM requires participants to rate their level of emotional intensity in response to a variety of specific situations (e.g., "When I am happy the feeling is more like contentment and inner calm than one of exhilaration and excitement"). The AIM was designed to measure a stable personality

1 Mirrors have been commonly used to cause a state of self-focused attention; see Duval and Wicklund (1972), and Carver and Scheier (1981).
trait, but was used here as a dependent variable to measure state differences in participants.

All self-ratings were done in private; participants did not put their names on the measures. (Measures were identified only by subject number) Ratings were made privately to reduce the participants’ desires to appear consistent in front of the experimenter, which might be especially salient if they were in the public condition. Subsequent to filling out the emotion questionnaires, participants completed a post-experimental manipulation check questionnaire in which they responded to the probe "To what extent do you think your presentation in this experiment is publicly identifiable? Do you think anyone might recognize you or know what you said during your presentation (including the graduate student interviewee?) on a 5-point scale with endpoints labeled highly publicly identifiable (1) and not at all publicly identifiable (5)."

The Debriefing

Participants were then carefully debriefed using a process debriefing to eliminate any lasting effects of experimental manipulations on the self-concepts of the participants. The initial phases of the debriefing included describing all conditions and hypotheses of the study and explaining the effects that the independent variables were expected to have on participants’ self-images. The process debriefing consisted of asking participants to remember three times when they had behaved in a manner opposite to the manner they had portrayed in the experiment and emphasized that behavior and self-ratings in the laboratory did not reflect the true state of the participants’ personality. After further discussion of the effects of the manipulations on the participants’ self-images, the experimenter explained the concept of perseverance (Ross, Lepper, & Hubbard, 1975) and discussed how the perseverance of the manipulations could further affect participants’ self-images.

Results

Manipulation Check

A postexperimental questionnaire confirmed that participants in the public condition were significantly more likely than participants in the private condition to believe that their behavior (their self-portrayal) could be publicly identified by others, $F(1, 89) = 160.58, p < .001$.

Main Analyses: Self-Ratings

The main dependent measure was the single item asking participants to rate their level of emotional stability—responsiveness. The data for overall self-ratings of emotional stability—responsiveness are in Table 1. A 2 (public vs. private) $\times$ 3 (emotionally stable self-portrayal vs. emotionally responsive self-portrayal vs. irrelevant self-portrayal) analysis of variance (ANOVA) revealed a main effect for valence of self-portrayal, indicating that self-reports were significantly affected by self-portrayal, $F(2, 84) = 28.14, p < .001$. Thus, regardless of whether the participants were in the public or private condition, those who described themselves as emotionally stable later rated their true selves as more emotionally stable than those who described themselves as emotionally responsive. This main effect was modified by a significant interaction between valence of self-portrayal and publicness of portrayal, $F(2, 84) = 5.65, p < .01$. Thus, participants who portrayed themselves under public conditions rated themselves as being more similar to the presented behavior than participants who portrayed themselves under less identifiable conditions. In other words, there was more internalization of the behavior in the public condition than in the private condition. In the public conditions, all planned comparisons were significant. Participants who had publicly described themselves as emotionally responsive rated themselves as actually more emotionally responsive ($M = 19.1$) than participants who had privately described themselves as emotionally responsive ($M = 14.9$), $t(28) = 2.73, p < .02$. Participants who had publicly described themselves as emotionally stable rated themselves as actually more stable ($M = 6.9$) than participants who had privately described themselves as emotionally stable ($M = 10.1$, where higher numbers represent lower stability), $t(28) = 2.74, p < .02$.

Planned comparisons between the experimental and control groups also supported the conclusion that public self-portrayals had greater impact on self-ratings than private self-portrayals. Participants who publicly portrayed themselves as emotionally responsive rated themselves as actually being more emotionally responsive ($M = 19.1$) than participants in the control group who had publicly portrayed themselves as athletic ($M = 12.3$), $t(28) = 3.81, p < .001$. Participants who publicly portrayed themselves as emotionally stable rated themselves as actually being more emotionally stable ($M = 5.5$) than participants in the control group who had publicly portrayed themselves as athletic ($M = 12.3$, where higher scores indicate lower stability), $t(28) = 3.42, p < .01$. Thus, in the public conditions there were significant differences between the experimental and control groups in the emotional stability or responsiveness ratings.

In the private conditions, however, no significant differences were found between either the emotionally responsive portrayals ($M = 14.9$) and the private control group ($M = 13.3, t < 1, n$s) or between the emotionally stable portrayals ($M = 10.1$) and the private control group ($M = 13.3, t = 1.94, n$s). In other words, the emotional responsiveness self-ratings of participants who privately described themselves as emotionally responsive were no different from the emotional responsiveness self-ratings of participants in the control group. Likewise, the emotional sta-

### Table 1

Mean Self-Ratings of Emotional Responsiveness or Stability and of Emotional Intensity (AIM): Study 1

|                      | Public condition |  | Private condition |  |
|----------------------|------------------|-------------------------------|-------------------------------|
|                      | $M$   | $SD$ | $M$   | $SD$ |
| **Valence of self-portrayal** |            |            |        |        |
| Emotionally stable   |            |            |        |        |
| Main self-rating     | 6.9    | 2.6    | 10.1  | 3.7    |
| AIM                  | 130.1  | 19.9   | 140.3 | 16.9   |
| Emotionally responsive |        |        |        |        |
| Main self-rating     | 19.1   | 4.1    | 14.9  | 4.3    |
| AIM                  | 162.9  | 20.0   | 150.5 | 21.1   |
| Control              |        |        |        |        |
| Main self-rating     | 12.3   | 5.5    | 13.3  | 5.4    |
| AIM                  | 148.3  | 24.1   | 149.7 | 20.1   |

Note. Higher numbers reflect more emotionally responsive and higher emotional intensity self-ratings. For each cell, $n = 15$. AIM = Affect Intensity Measure (Larsen, 1984).
bility self-ratings of participants who privately described themselves as emotionally stable were no different from the emotional stability self-ratings of participants in the control group. Although there were no differences between either of the private experimental groups and the private control group as described above, a significant difference emerged if the two private experimental groups were compared with each other. Participants who privately described themselves as emotionally responsive were more likely to rate themselves as emotionally responsive \( (M = 14.9) \) than were participants who privately described themselves as emotionally stable \( (M = 10.1) \), \( t(28) = 3.28, p < .01 \). Thus, even in the private condition there was some support for internalization of behavior.

**Supplemental Analyses: Affect Intensity Measure**

The supplemental dependent measure was the AIM (Larsen, 1984; Larsen et al., 1986). The data for all groups' self-ratings on the AIM are in Table 1. Although the AIM was designed to measure a stable personality trait, it was used here as a dependent variable to measure state differences in participants' reported affect intensity (in an attempt to replicate the findings obtained using the single-item measure of emotional responsiveness—stability reported above). The AIM requires participants to rate their level of emotional intensity in response to a variety of specific situations, such as “when I accomplish something . . .,” “on the most trying of days . . .,” “in the anticipation of some exciting event . . .,” and “when I solve a small personal problem . . ..” These situations were appropriate for measuring internalization of behavior in the experimental groups (in which participants had presented themselves as emotionally stable or responsive), but the scale was less relevant for measuring participants in the control groups (in which participants had presented themselves as athletic).

When comparing the AIM responses of just the participants in the experimental conditions (those who portrayed themselves as either emotionally stable or emotionally responsive) and excluding the control groups from the analyses, the findings were similar to those found using the single-item response. A strong main effect for valence of self-portrayal was revealed, with participants who had portrayed themselves as emotionally responsive rating themselves as experiencing more intense affect \( (M = 156.7) \) than participants who had portrayed themselves as emotionally stable \( (M = 135.2) \) across a variety of situations, \( F(1, 56) = 18.16, p < .001 \). This main effect was modified by a significant interaction between valence of self-portrayal and publicness of self-portrayal, \( F(1, 56) = 6.08, p < .03 \), suggesting that the effect of public behavior was stronger than the effect of private behavior.

In planned comparisons, a significant difference was found between participants who had publicly portrayed themselves as responsive \( (M = 162.9) \) and those who had publicly portrayed themselves as stable \( (M = 130.1) \), \( t(28) = 4.51, p < .0001 \), suggesting that the self-portrayal had an effect on the self-concept of participants in the public condition. However, there were no significant differences between participants who had privately portrayed themselves as responsive \( (M = 150.5) \) and those who had privately portrayed themselves as stable \( (M = 140.5) \), \( t(28) = 1.45, ns \). Thus, in the public condition, participants internalized their self-portrayals, but there was a lack of direct evidence of internalization in the private condition because the self-concepts of the two groups (on the AIM) did not differ.

The results of these comparisons of the experimental groups (who portrayed themselves as either emotionally stable or emotionally responsive) support the conclusions that could be drawn from the single-item measure suggesting that public behavior is internalized to a greater extent than private behavior. If the participants in the control condition (whose self-portrayals were irrelevant to emotional intensity) are included in the analysis, then the interaction between publicness and valence of self-portrayal becomes only marginally significant, \( F(2, 84) = 2.35, p = .10 \).

**Ratings of Interview Responses**

If participants in the public conditions gave more detailed or extensive self-portrayals than participants in the private conditions, that could result in the findings that internalization was greater in public than in private. To test this hypothesis, ratings of each participant's responses to the interview questions (the requested self-portrayal) were coded on a scale of 1–10 for the extensiveness of emotional stability–responsiveness. The rater was blind to the experimental condition of the participant. If participants in the public conditions gave more detailed or extensive self-portrayals (presentations) than participants in the private conditions, then there should be significant differences in the ratings made of the presentations.

The data for the ratings of participants’ portrayals of emotional stability and responsiveness are reported below. A highly significant main effect for valence of self-portrayal (emotionally responsive vs. stable) was found, \( F(1, 56) = 178, p < .001 \).
suggesting that participants in the emotionally responsive portrayal conditions presented themselves as much more emotionally responsive than participants in the emotionally stable portrayal conditions. In other words, participants portrayed themselves in a manner consistent with the experimental request. Participants who had been asked to portray themselves as emotionally responsive did so, and participants who had been asked to portray themselves as emotionally stable did so. No main effect for publicness or interaction between publicness and valence of self-portrayal was found (both \( F < 1 \), \( n.s. \)), suggesting that participants' self-portrayals did not differ depending on whether they were in the public or private condition. The ratings of participants portraying themselves as emotionally responsive in the public condition (\( M = 7.60 \)) did not differ from the ratings of participants portraying themselves as emotionally responsive in the private condition (\( M = 7.53 \)), \( t(28) < 1, n.s. \). Likewise, the ratings of participants portraying themselves as emotionally stable in the public condition (\( M = 2.53 \)) did not differ from the ratings of participants portraying themselves as emotionally stable in the private condition (\( M = 2.27 \)), \( t(28) < 1, n.s. \).

Apparently, the self-portrayals of participants portraying themselves publicly did not differ from the self-portrayals of participants portraying themselves privately (in fact, the means were nearly identical; the nonsignificant trend is in the opposite direction). Thus, the difference in self-ratings subsequent to the self-portrayals cannot be accounted for by the explanation that participants in the public conditions gave more detailed or extensive self-portrayals than participants in the private conditions. No main effects or interactions involving gender of participant were significant (all \( F < 1, n.s. \)).

**Discussion**

Portraying a role in front of others elicited greater internalization of the behavior than portraying a role in more anonymous settings. Despite all participants drawing on past experiences of their own behavior in answering the questions, participants who portrayed themselves to another in a highly identified, public manner showed more internalization than participants who portrayed themselves anonymously. There was some evidence of internalization in the private condition on the single-item measure (although not on the AIM), but the interaction reflected significantly greater internalization in the public conditions.

Internalization of behavior was measured only by self-report measures in Study 1, however. After portraying themselves in the desired manner either publicly or privately, participants were asked to rate their “true selves” for the experimenter. It is possible that the effects found in Study 1 were simply a result of verbal cues or demand characteristics and do not represent any real self-concept change. Perhaps participants were simply saying that they were emotionally stable (or responsive) without really regarding themselves as stable. Behavioral evidence would be necessary to show that the apparent shifts in self-concept found in Study 1 went beyond verbal cues. If self-concepts really changed, then trait-linked behaviors should change as well. To address this issue, in Study 2 I measured internalization of behavior by both self-report measures and unobtrusive behavioral measures of which the participants were unaware.

**Study 2: Internalization and Behavior**

Study 2 was a replication and extension of Study 1. To increase the generalizability of the findings, I used a different self-concept dimension: Individuals were asked to portray themselves as either introverted or extraverted (rather than as emotionally stable vs. responsive as in Study 1). Participants were asked to portray themselves in the requested manner either publicly to another person who could identify them, or (relatively) privately and anonymously. Along with self-report variables assessing internalization of behavior as in Study 1, behavioral dependent variables were added to the design of Study 2. Participants were put in an unstructured situation in which they had the opportunity to act in either an introverted fashion or an extraverted fashion (as in Fazio et al., 1981). As in Study 1, an interaction between publicness and valence of self-portrayal was predicted, in which participants in the public condition would internalize their behavior to a greater extent than participants in the private condition.

In addition, although group means in Study 1 showed that in general, participants, especially those in the public conditions, were likely to internalize their behavior, an examination of the raw data showed that this effect was much stronger for some participants in each cell than for others. Snyder has shown that the concept of self-monitoring is relevant to individual differences in sensitivity to audiences (e.g., Snyder, 1974; Snyder & Gangestad, 1986); therefore, individual differences in self-monitoring were measured in Study 2 in an effort to determine which participants were most likely to internalize their behavior within each group. Self-monitoring is a personality construct designed to differentiate between individuals who “are thought to regulate their expressive self-presentation for the sake of desired appearances, and thus be highly responsive to social and interpersonal cues of situationally appropriate performances” and those who “are thought to lack the ability or the motivation to so regulate their expressive self-presentations” (Snyder & Gangestad, 1986, p. 125). High self-monitors are thought to process situational cues and events more carefully and to be more responsive to those cues. It was predicted that self-monitoring would moderate the internalization effect. High self-monitors might internalize more because they monitor their own performance more closely than low self-monitors and therefore are more likely to be “taken in” by their own performance. Alternatively, low self-monitors might internalize more because high self-monitors, in paying more attention to the situational cues in the experiment, would be more likely to recognize the situational constraints on their behavior.

**Method**

**Participants and Design**

Eighty introductory psychology students volunteered to participate. (Three additional participants were not tested because they were friends of the confederates or because of equipment failure.) The 36 women and 44 men were distributed approximately equally across the four conditions. The design consisted of a 2 (public vs. private) \( \times \) 2
Procedure

The cover story and procedure are similar to those used in Study 1, except that in Study 2 participants were asked to portray themselves as either introverted or extraverted instead of as emotionally stable or responsive as in Study 1. In addition, participants rated themselves on the Self-Monitoring Scale (Snyder, 1974) in a large group pretesting session at the beginning of the semester before attending the laboratory session. Participants came to the laboratory individually and were given a detailed explanation of the same cover story used in Study 1 (in which they were asked to portray themselves in a given way as a stimulus person to be rated by a clinical graduate student). Participants were asked to portray themselves as possessing a given personality trait for the purposes of the study, whether or not they actually possessed that trait. One half of the participants were asked to portray themselves as introverts, and the other half of the participants were asked to portray themselves as extraverts in response to the same set of interview questions used in Study 1. The five questions were general enough to allow both introvert versus extravert responses in Study 2 as well as emotionally responsive versus emotionally stable responses in Study 1. Participants were given a brief definition of the term either introvert or extravert that was specifically designed to create a positive impression of the trait they were to portray. Participants in the extravert-portrayal condition were asked to portray themselves as extraverted, outgoing, socially skilled, a “people person,” eager to tackle new situations and meet new people, able to handle leadership, and enthusiastic about being with people. Participants in the introvert-portrayal condition were asked to portray themselves as introverted, shy, thoughtful, sensitive, and quiet, and not pushy, bossy, or demanding of attention. Participants were told that they could choose not to participate if they felt they were completely unable to portray themselves in the prescribed manner; all participants chose to continue in the experiment. (As in Study 1, this may have been because the trait they were asked to portray was always described as a positive characteristic.)

The public versus private manipulation was manipulated in exactly the same manner as in Study 1 (see Study 1 for a more complete description). For participants in the public condition, the experimenter indicated that the graduate student was in the next room behind the mirror, and participants were asked to identify themselves in some detail into the intercom-tape recorder. For participants in the private condition, the experimenter emphasized that participants must remain anonymous.

After taking a few minutes to prepare their responses, participants responded to the five interview questions over the intercom system. All participants were then told that the experimenter wanted them to rate themselves on a questionnaire so that she would have a measure of their “true” personalities to compare with the graduate student’s ratings. At this point participants completed the self-ratings questionnaire used by Fazio et al. (1981), which consisted of 10 trait terms. Participants were requested to rate their “true” selves on the ten 11-point scales (rather than the 7-point scales used by Fazio et al., 1981) with instructions similar to those given for Study 1. All self-ratings were done privately; participants did not put their names (only their subject numbers) on the measures.

When participants had completed the self-ratings form, the experimenter asked them to seal it in an envelope and put the envelope in a box entitled “Self-Rating Forms.” Thus, participants were assured of the confidentiality of their self-ratings. After they had deposited their forms, the experimenter told participants that she needed to get one more short form for them to fill out and asked them to wait in the waiting room until she returned with the form. The experimenter checked in the waiting room and then asked the participants to bring the chair they were sitting on along with them to the waiting room, because “for some reason all the chairs but one were taken out of this room, and there is a student waiting for a different study sitting in the one chair that is in the waiting room.” The confederate was already seated in the chair in the far corner of the waiting room and was reading a book; participants brought their chairs in and the distance between the participant’s chair and the confederate’s chair was later recorded. Male participants were paired with the male confederate and female participants were paired with the female confederate. All participants were left alone with the confederate for exactly 3 min; all conversation between participants and the confederates was taped and subsequently timed by the confederates. Both confederates were instructed and trained to be nonresponsive to conversation attempted by participants (without being blatantly rude). As in the Fazio et al. (1981) study, extraverted behavior was operationalized as speaking to and sitting relatively close to the confederate; introverted behavior was operationalized as sitting far from and not speaking to the confederate.

After 3 min had passed, the experimenter returned with the manipulation check sheet and escorted the participant back to the experimental room. The manipulation check consisted of a 5-point scale asking participants to rate the degree of public identifiability versus anonymity of their responses to the interview questions. Participants were subsequently debriefed with an extensive process debriefing similar to that described in Study 1.

Results

Manipulation Check

A postexperimental questionnaire confirmed that participants in the public condition were significantly more likely than participants in the private condition to believe that their behavior (their self-portrayal) could be publicly identified by others, \(F(1, 79) = 1807.2, p < .0001\).

Self-Rating Measure

The main self-rating measure was the 10-item scale used by Fazio et al. (1981), in which participants rated themselves on 11-point bipolar scales on the following dimensions: talkative–quiet, unsociable–sociable, friendly–unfriendly, poised–awkward, extraverted–introverted, enthusiastic–apathetic, outgoing–shy, energetic–relaxed, warm–cold, and confident–unconfident. The data for the self-ratings are in Table 2. A 2 × 2 ANOVA revealed a main effect for valence of self-portrayal, indicating that self-reports were significantly affected by self-portrayal, \(F(1, 72) = 24.20, p < .001\). Thus, across both public and private conditions, those who described themselves as introverted later rated their true selves as more introverted than those who described themselves as extraverted. This main effect was modified by two significant interactions. Replicating the results of Study 1, an interaction between publicness and valence of self-portrayal was also revealed, in which participants answering the interview questions publicly internalized their behavior to a greater extent than did participants answering the questions in a relatively private and anonymous fashion, \(F(1, 72) = 9.46, \ p < .01\).

Planned comparisons between the introvert-portrayal group and extravert-portrayal group also supported the conclusion that public self-portrayal had greater impact on self-ratings.
than private self-portrayal. Participants who publicly portrayed themselves as extraverted rated themselves as actually being more extraverted (M = 77.6) than participants who had publicly portrayed themselves as introverts (M = 50.75), F(38) = 23.91, p < .001. Thus, in the public conditions there were significant differences between the self-ratings of extraversion made by participants who had portrayed themselves as introverts compared with those who had portrayed themselves as extraverted.

In the private conditions, however, no significant differences were found between the introvert-portrayal group (M = 61.35) and the extravert-portrayal group (M = 67.55), F = 2.04, ns. In other words, the extraversion self-ratings of participants who privately described themselves as extraverted were no different from the extraversion self-ratings of participants who privately described themselves as introverted. Thus, there was evidence for the internalization of behavior in the public but not in the private conditions.

An interaction between self-monitoring and valence of portrayal was revealed, in which high self-monitors internalized their behavior (portraying themselves as introverts or as extraverted) to a greater extent than did low self-monitors, F(1, 72) = 7.47, p < .01. A three-way interaction among self-monitoring, publicness, and valence of self-portrayal was revealed, in which high self-monitors internalized their behavior (with those who had portrayed themselves as introverted in the interview sitting further from the confederate than those who had portrayed themselves as extraverts) to a greater extent than did low self-monitors, F(1, 72) = 6.09, p < .05. An interaction between publicness and valence of self-portrayal was also revealed, in which participants answering the interview questions publicly internalized their behavior to a greater extent than did participants answering the questions in a relatively private and anonymous fashion, F(1, 72) = 4.65, p < .05. A three-way interaction between self-monitoring, publicness, and valence of self-portrayal attained only marginal levels of statistical significance, F(1, 72) = 3.01, p = .0869.

Planned comparisons between the public groups (comparing the introvert-portrayal group and extravert-portrayal group) also supported the conclusion that public self-descriptions had greater impact on the behavioral measures than private self-descriptions. Participants who publicly portrayed themselves as extraverted sat closer to the confederate (M = 146.0 cm) than participants who had publicly portrayed themselves as introverts (M = 168.85), F(38) = 6.16, p < .02.

In the private conditions, however, no significant differences were found between the introvert-portrayal group (M = 158.75) and extravert-portrayal group (M = 159.45), F < 1, ns. In other words, participants who had privately described themselves as extraverted were no more likely to sit near the confederate than were participants who privately described themselves as introverted. Thus, again, there was evidence for the internalization of behavior in the public but not in the private conditions.

Speaking to confederate. As in the Fazio et al. (1981) study, extraverted behavior was operationalized as speaking extensively to the confederate; introverted behavior was operationalized as not speaking to or speaking only briefly with the confederate (under the assumption that highly social or extraverted people prefer to chat or socialize with others whereas shy or introverted people may be less likely to make conversation with strangers). The proportions of participants in each condition who initiated conversation with the confederate were compared using arcsine transformation analysis (cf. Fazio et al., 1981; Langer & Abelson, 1972; collapsing across the self-monitoring variable). A significant interaction between publicness and valence of self-portrayal was revealed (z = 3.35, p < .05), suggesting that participants who had portrayed themselves publicly were more likely to have acted in accordance with their self-portrayals than were participants who had portrayed themselves more anonymously. Subsequent arcsine transformation analyses revealed that the difference between proportions of participants initiating conversations comparing participants who had portrayed themselves as introverts versus those who had portrayed themselves as extraverted was significant in the public conditions (z = 1.927, p < .05). In other words, partici-

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**Table 2**

<table>
<thead>
<tr>
<th>Valence of self-portrayal</th>
<th>Public condition</th>
<th>Private condition</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Introverted Self-rating of extraversion</td>
<td>50.75</td>
<td>15.96</td>
</tr>
<tr>
<td>Distance from confederate</td>
<td>168.85</td>
<td>29.55</td>
</tr>
<tr>
<td>Extraverted Self-rating of extraversion</td>
<td>77.60</td>
<td>18.67</td>
</tr>
<tr>
<td>Distance from confederate</td>
<td>146.00</td>
<td>28.68</td>
</tr>
</tbody>
</table>

pants who had publicly portrayed themselves as extraverts were more likely (65%) to initiate a conversation than were participants who had publicly portrayed themselves as introverts (35%). In the private conditions, however, there was no difference, and in fact the proportion of participants initiating a conversation was identical regardless of whether the participants had portrayed themselves as introverts (55%) or extraverts (55%); \( z = 0, n_s \). Thus, as in the measures reported above, participants were likely to act in accordance with their previous self-portrayals if those self-portrayals were public, but not if those self-portrayals were relatively private and anonymous.

Further comparisons of proportions of participants speaking with the confederate using arcsine transformation analyses revealed that high self-monitors were likely to act in accordance with their previous self-portrayals if those self-portrayals were public (with participants who had portrayed themselves as extraverts being significantly more likely to speak than participants who had portrayed themselves as introverts, 30% vs. 70%; \( z = 3.65, p < .05 \)), but not if their self-portrayals were private (\( z = 0.45, n_s \)). Low self-monitors were not likely to act in accordance with either their public self-portrayals (\( z = .90, n_s \)) or with their private self-portrayals (\( z = 0, n_s \)).

The duration of speech was also measured, but the data had high variance and were highly skewed (47.5% of the participants never spoke to the confederate at all during the waiting room situation; skewness = .68). Even after the data were transformed using the transformations recommended by Fazio et al. (1981), no significant effects were obtained.

**Rating of Self-Portrayals**

To evaluate the alternative, artificial interpretation of the data suggesting that participants in the public conditions gave more extreme self-portrayals than participants in the private conditions, each participant's responses to the interview questions (the requested self-portrayal) were rated on a scale of 1-5 for the extremity of introversion or extraversion. A highly significant main effect for valence of self-portrayal (introversion vs. extraversion) was found, \( F(1, 72) = 1,075.9, p < .001 \), suggesting that participants in the introversion-portrayal conditions portrayed themselves as much more introverted than participants in the extraversion-portrayal conditions. In other words, participants portrayed themselves in a manner consistent with the experimental request, as in Study 1. Participants who had been asked to portray themselves as introverted did so, and participants who had been asked to portray themselves as extraverted did so.

No main effect for publicness or interaction between publicness and valence of self-portrayal was found: Consistent with the main finding of Study 1, public behavior led to more internalization than private behavior. On both self-report measures and behavioral measures, there was more self-concept change in the public condition than in the private condition. Subjects who were led to describe themselves publicly as extraverted later sat closer to the confederate, but not for low self-monitors, \( r(38) = .22 \) and \( -.07, \) respectively. This suggests that high self-monitors' self-portrayals significantly affected their subsequent behavior, but low self-monitors' self-ratings and behavior were not systematically related to their prior behavior.

**Gender**

The only gender effect uncovered by the analyses was a main effect for gender on the sitting distance variable. Male participants chose to sit significantly farther from the male confederate (\( M = 163.0 \)) than female participants chose to sit from the female confederate (\( M = 152.4 \)), \( F(1, 64) = 4.62, p < .05 \).

**Discussion**

Study 2 replicated the self-report findings of Study 1 and supplemented the self-report measures with behavioral measures collected without the participants' awareness. An interaction between publicness and valence of self-portrayal was found: Consistent with the main finding of Study 1, public behavior led to more internalization than private behavior. On both self-report measures and behavioral measures, there was more self-concept change in the public condition than in the private condition. Subjects who were led to describe themselves publicly as extraverted later sat closer to the confederate and spoke to the confederate more than subjects who had been led to describe themselves as introverted. But similar self-descriptions given privately and anonymously had no effect on subsequent behavior.

Study 2 suggests that the internalization of behavior findings from Study 1 were not simply a superficial or deliberate repetition of verbal labels but rather a true alteration in self-concept that was strong enough to produce changes in behavior in a subsequent situation without the participant's awareness.

Study 2 also suggested that high self-monitors internalized their behavior to a greater extent than did low self-monitors. High self-monitors process situational cues and events more carefully and are more responsive to those cues; this suggests that self-observation and self-regulation (guided by situational and social cues) can contribute to the internalization of behavior. Participants who were more likely to monitor themselves, their actions, and their surroundings (i.e., high self-monitors)
were more likely to act in accordance with their previously portrayed behavior than were low self-monitors. High self-monitors showed a significant relationship between the extremity of their self-portrayals and their subsequent behavior, with participants who gave more extreme self-portrayals showing more internalization than participants who gave less extreme presentations. Low self-monitors, on the other hand, demonstrated little relationship between their initial self-portrayals and their subsequent behavior.

It is somewhat ironic that high self-monitors internalized their behavior more than low self-monitors. High self-monitors are thought to regulate their expressive behavior for strategic impression management reasons, that is, to produce desired public appearances, but the high self-monitors seem as influenced by their own behaviors as they wanted their audience to be. High self-monitors are the behavioral chameleons, but perhaps their strategic public self-portrayals are not just hypocritical staged acts. High self-monitors themselves seem to come to believe some of their own presentations.

Both Study 1 and Study 2 gave participants a high degree of choice about presenting themselves in the requested manner and asked participants to supply self-referenced anecdotes to support their presentations. Study 3 was an attempt to determine whether choice and self-referenced presentations affect participants' internalization of their public presentations.

Study 3: Choice, Self-Reference, and Future Interaction

Study 3 investigated some of the process variables associated with the internalization of behavior. Studies 1 and 2 suggested that public behavior was internalized to a greater extent than private behavior; Study 3 attempted to determine some of the components of a public situation that might cause behavior to carry over into another situation and some of the limiting conditions for the internalization effect.

Self-presentational effects are often studied by examining the differences between public and private conditions as in Studies 1 and 2, but that is not the only method available for increasing our understanding of the process of self-presentation. By varying some of the situational factors present during self-presentation, we can better understand the components of the situation affecting self-presentations or their outcomes (see, for example, Baumeister et al., 1989).

Both Study 1 and Study 2 asked participants to draw on examples from their own past behavior to support their public presentations, and both gave participants a high degree of choice about whether they would present themselves in the requested fashion for the experiment. Both self-referencing and choice have been shown to affect internalization of behavior in past work under some conditions. Jones et al. (1981) found that when their subjects portrayed themselves in a self-enhancing manner, they raised their self-evaluations in the self-referencing condition (i.e., internalized their behavior) but not in the non-self-referencing condition; choice had no effect on self-evaluations. In contrast, when their subjects portrayed themselves in a self-deprecating manner, they lowered their self-evaluations in the high-choice condition but not in the low-choice condition; self-referencing had no effect on self-evaluations. The authors suggested that biased scanning was engaged after self-enhancement, whereas dissonance was produced by self-deprecation (see also Rhodewalt & Agustsdottir, 1986, for replication and extension of the Jones et al., 1981, findings).

The present study attempts to build on the Jones et al. (1981) and Rhodewalt and Agustsdottir (1986) findings and determine what variables affect the internalization of more evaluatively neutral traits. In everyday life, some self-presentations may entail portraying oneself extremely positively or extremely negatively, but many self-presentations may involve portraying the self in a less highly evaluative manner. If one portrays oneself in a relatively evaluatively neutral manner, perhaps both choice and self-referencing may affect the internalization process. This may be especially true of public behavior. In public, as compared with the privacy of one's own thoughts, one may be constrained from portraying oneself in an extreme manner (either extremely positively or extremely negatively, as in Jones et al., 1981), because others may doubt one's presentation, or because one may be forced to live up (or down) to one's claims. Thus, both choice and self-referencing may play a greater role in affecting the internalization of public behavior than of private behavior. In addition, public situations may contain pressures for truthfulness that are absent in private situations (see Baumeister & Ilko, 1991), because one's presentation could be challenged or one might be compelled to act consistently with one's presentation or other norms in public to a greater extent than in private.

In addition to choice and self-referencing, the expectation of future interaction may affect the internalization of behavior. Individuals might feel more committed to their behavior in a public situation than they do in a relatively private and anonymous situation because of the increased opportunity for future interaction with the audience of the public presentation. Portraying oneself publicly carries with it the risk of meeting the audience in the future and possibly disconfirming one's earlier self-portrayal; in other words, the expectation of future interaction contributes to the increased subjective importance of public behavior, leading to greater internalization. Hence, in Study 3, participants expecting future interaction with their audience were predicted to show more internalization than participants not expecting future interaction.

Method

Participants and Design

Eighty introductory psychology students volunteered to participate. The experiment consisted of a 2 (own responses vs. yoked responses) × 2 (expectancy of future interaction vs. no interaction) × 2 (high vs. low choice) design.

Procedure

The cover story and procedure are similar to those used in Study 2, except that in Study 3 all participants were asked to portray themselves as introverts in a public, highly identifiable manner (as in the public condition of Studies 1 and 2). Participants came to the laboratory individually and were given a detailed explanation of the same cover story used in Studies 1 and 2, in which they were asked to portray themselves in a given way as a stimulus person to be rated by a clinical graduate student. Participants were asked to portray themselves as introverts in
response to the same set of questions used in the previous studies for the purposes of the experiment, regardless of whether they actually felt they were introverted. Participants were given a brief definition of the term introvert that was specifically designed to create a neutral, non-evaluative impression of the trait (unlike in Study 2, in which the definition was specifically designed to create a positive impression of the term). Introverted behavior was defined as being "shy, quiet . . . more likely to stand back and take everything in rather than trying to run everything or be a part of everything."

Yoked versus self-referencing manipulation. One half of the participants were instructed to draw on their own past experiences for examples of introversion to use in response to the five questions and were given exactly the same instructions as the participants in Studies 1 and 2, except that they were requested to write their answers down. The other half of the participants were yoked to the responses of the other group; that is, each participant in the yoked group was paired with a (same gender) participant in the own-experiences group and read the same responses that the self-referencing group participant had generated. Instructions to participants in the yoked conditions were similar to those reported by Jones et al. (1981, Experiment 3). Thus, participants in the self-referencing conditions and in the yoked conditions reported identical responses to the questions, but only for the self-referencing group were these responses likely to access self-information.

Future interaction manipulation. One half of the participants were led to expect that they would have a variety of future interactions with the graduate student who heard their self-portrayals. These participants were told that the graduate student was going to meet them afterward to talk about the experience of participating in psychology experiments and that this graduate student was also just beginning an assignment as the teaching assistant for their section of their psychology lecture class, so they would be seeing her on a regular basis until the end of the semester. The other half of the participants were led to believe that the graduate student who heard their self-portrayals was a student at another university and, although she would have a great deal of identifying information about them, they were not likely to ever see her or come into contact with her.

High-choice versus low-choice manipulation. One half of the participants were put in the same high-choice condition as participants in Studies 1 and 2, in which they were told that they could choose not to participate if they felt they were completely unable to portray themselves as introverts; as in Studies 1 and 2, all participants chose to continue in the experiment. The other half of the participants were told that although participants usually got to choose whether they wanted to make the presentation or not, enough people had chosen the other option, so the participants had no choice but to portray themselves as introverts. Thus, it was emphasized that participants usually had a choice but that this freedom was diminished for these participants.

After participants had responded to the interview questions over the intercom system, they were told that the experimenter wanted them to rate themselves on a questionnaire so that she would have a measure of their "true" personalities to compare with the graduate student's ratings. At this point participants completed the self-rating questionnaire used in Study 2. All self-ratings were done in private; participants did not put their names (only their subject numbers) on the measures.

After making the self-ratings, the participants filled out a sheet of manipulation checks that consisted of three 5-point scales asking them to rate to what degree the responses to the interview questions represented experiences actually drawn from their own past, to what degree did they expect to meet the graduate students who heard their presentations, and how much choice did they feel they had about participating in the study as requested. Participants were subsequently debriefed with an extensive process debriefing similar to that described in Study 1.

Results

Manipulation Check

A postexperimental questionnaire confirmed that participants in the yoked conditions were significantly less likely than participants in the self-referencing conditions to rate their presentations as containing samples from their own life experiences, $F(1, 79) = 3.128, p < .0001$. Participants in the future-interaction conditions were significantly more likely than participants in the no-future-interaction conditions to report expecting to meet the graduate student who heard their presentations, $F(1, 79) = 12.482, p < .0001$. Participants in the high-choice conditions were significantly more likely than participants in the low-choice conditions to report a high degree of choice regarding making the introverted presentation, $F(1, 79) = 460.2, p < .0001$.

Main Analysis: Self-Ratings

The main dependent measure was the 10-item scale used in Study 2. The data for the self-ratings are in Table 3. A $2 \times 2 \times 2$ ANOVA revealed three main effects and no interactions. A main effect for self-referencing suggested that participants who drew on their own past experiences to portray themselves as introverts to the audience were significantly more likely to internalize their behavior and rate themselves as introverts ($M = 55.5$) than were yoked participants who simply read someone else's experiences to the audience ($M = 65.7$), $F(1, 72) = 21.5, p < .001$. A main effect for future-interaction conditions suggested that participants who expected to meet the graduate student who had heard their introverted self-presentations were significantly more likely to internalize their behavior and rate themselves as introverts ($M = 56.9$) than were participants who were not led to expect to meet the graduate student ($M = 64.3$), $F(1, 72) = 11.4, p = .001$. A main effect for choice conditions suggested that participants who were led to believe that they had a high degree of choice about portraying themselves as introverts were significantly more likely to internalize their be-

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Mean Self-Rating of Extraversion: Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future interaction</td>
<td>$M$</td>
</tr>
<tr>
<td><strong>High choice</strong></td>
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</tr>
<tr>
<td>Self-referenced group</td>
<td></td>
</tr>
<tr>
<td>Expect future interaction</td>
<td>49.0</td>
</tr>
<tr>
<td>Expect no future interaction</td>
<td>57.0</td>
</tr>
<tr>
<td>Yoked group</td>
<td></td>
</tr>
<tr>
<td>Expect future interaction</td>
<td>59.2</td>
</tr>
<tr>
<td>Expect no future interaction</td>
<td>67.0</td>
</tr>
</tbody>
</table>

Note: Lower numbers reflect greater internalization of behavior, based on the scale used by Fazio et al. (1981). For each cell, $n = 10$. 


behavior and rate themselves as introverts ($M = 58.05$) than were participants who were led to believe that they had a low degree of choice about how they portrayed themselves ($M = 63.15$), $F(1, 72) = 5.42, p < .05$.

One additional question was whether the effects of the three independent variables are additive, that is, does the presence of expecting future interaction, self-referencing, and choice produce more internalization than any one of those factors in the absence of the others? This possibility was explored with a post hoc $t$ test comparing the cell that combined all three factors against the pooled mean of the three cells that each contained only one of the three factors (i.e., from Table 3, 49.0 against the pooled means 67.0, 64.8, and 61.5). This difference was significant, $t(72) = 4.30, p < .001$, supporting the additivity hypothesis.

**Discussion**

Study 3 was an attempt to begin to deconstruct the public self-presentational situation to determine which components of the situation influenced the internalization of behavior. Results suggested that high choice as compared with low choice, self-referenced presentation as compared with non–self-referenced (yoked) presentation, and expectation of future interaction with the audience of one's self-presentation as compared with no expectation of future interaction all increased the internalization of the self-presentation.

Jones et al. (1981) found (in their third study) that choice affected a self-deprecating presentation but not a self-enhancing presentation, whereas self-referencing affected a self-enhancing presentation but not a self-deprecating presentation. When an evaluatively neutral trait is portrayed (as in Study 3), both choice and self-referencing, as well as the expectancy of future interaction with the audience, can affect the internalization of the self-presentation.

Thus, Study 3 shows that the internalization of public behavior can be increased by several factors that all strengthen the link between one's public behavior and one's inner self. When self-presentation is based on searching one's own memory rather than just playing an assigned role, the behavior is internalized more strongly. Likewise, when the individual's free consent to engage in the self-presentation is made salient, the behavior is internalized more strongly. Last, when the audience to one's public behavior is someone with whom future interaction is expected, internalization again increases. These effects appear to be additive, insofar as their combination produced more internalization than any one of them alone. A proper theoretical understanding of self-concept change must therefore take the form of a continuum. That is, identical behaviors can be internalized to various degrees depending on several different, independent factors that raise or lower the impact of the interpersonal context.

**General Discussion**

The results of these three studies attest to the high importance of public circumstances and interpersonal context for producing self-concept change. A pattern of significant interactions showed that identical behaviors produced consistently stronger impact on the self-concept when they had been performed publicly rather than privately. Public behaviors led to substantial shifts in self-descriptions and even to consistent behavioral change, found even on unobtrusive measures in subsequent situations. The internalization effects of the public conditions were robust, unlike the effects in the private conditions.

In fact, evidence of self-concept change in private conditions was weak and inconsistent, and one may question whether internalization occurs reliably under private circumstances. If only the private conditions in these studies had been tested, the present investigation would not have found sufficient evidence to assert that internalization occurs reliably at all. In the private condition of Study 1, one self-report measure found no effect, and the other measure found a difference between two opposite conditions, neither of which differed from the control group condition. In the private condition of Study 2, the self-report measure showed only a trend that was far from significance, and the behavioral measures failed to yield even a slight trend. In other words, out of five measures, only one found significant evidence of internalization in the private condition, whereas public circumstances produced significant effects on all five measures.

Moreover, Tetlock and Manstead (1985) have pointed out that private conditions in laboratory experiments are not truly private and may therefore contain some vestiges of interpersonal, self-presentational motivations. The vestiges of internalization could conceivably be linked to the vestiges of publicness in the private conditions. It therefore remains uncertain whether self-concept change caused by internalization of behavior can occur in the absence of an interpersonal context.

As noted in the introduction, previous theorizing about self-concept change has emphasized intrapsychic processing, most notably biased scanning. Biased scanning is indeed assumed to be the process responsible for the present effects, and some of my results are quite consistent with that assumption. Thus, the largest single effect found in Experiment 3 was for the self-reference manipulation, which is the one most directly relevant to biased scanning (because it entails generating answers by scanning one's own self-concept rather than giving someone else's answers).

The present results do, however, suggest that biased scanning theory needs to be extended to assign an important role to interpersonal factors and context. To put it simply, biased scanning apparently occurs more powerfully, or is more effective at altering the self-concept, when one's behavior is known to others than when it is private and secret. Behavior is much more likely to be internalized, leading to self-concept change, if it is observed by others, as opposed to being anonymous or confidential. Self-observation alone is at best weak and at worst wholly inadequate for internalization; some degree of observation by others appears to be an important and powerful factor for producing internalization.

**Possible Causal Processes**

Although this article is essentially concerned with demonstrating the effect of interpersonal processes rather than with elucidating cognitive processes, it is instructive to consider possible links between the interpersonal and the cognitive pro-
cesses. It appears that both cognitive and interpersonal factors operate to produce self-concept change.

One simple explanation might be that public situations raise motivations to please others, and so the person casually says whatever will satisfy those who happen to be present. Thus, as one anonymous reviewer suggested, the results of Study 1 could have obtained because the subject wanted to help the experimenter by providing useful, confirming data. This explanation is contradicted by the results of Experiment 2, however, which found that self-concept change extended even to behavioral changes with a different interaction partner and even when participants were unaware of being observed. It appears that the self-concept change produced in these studies was genuine, at least to the extent of being able to produce consistent behavior with a different interaction partner in a new setting.

A second explanation would hold that interpersonal concerns motivate a more thorough and hence more impactful job of biased scanning. In private, perhaps, it does not matter what the subject does, says, or thinks, and so people may respond in a careless or lazy fashion (see Tetlock, 1983). When one's public identity and reputation are implicated, however, one is more careful and thorough about preparing, analyzing, and executing one's actions. Thus, in the present research, subjects may have engaged in more extensive biased scanning in the public condition than in the private condition. If this explanation were correct, one might have expected subjects' answers to the stimulus questions to be longer, more detailed, or more polarized in the public circumstances. No such effect was found, but possibly these measures were not sensitive to subtle differences in scanning. Thus, this explanation is only weakly contradicted by the present results and deserves further study.

A third explanation is that public circumstances magnified the impact of biased scanning. This one is similar to the second explanation, but it emphasizes the power of the scanning's result rather than the scanning itself. That is, perhaps people in private circumstances did the same amount of biased scanning as did the subjects in the public circumstances, but the others' presence and awareness increased the salience of the results of the scanning. Metaphorically, people in the public condition may have felt as if someone were looking over their shoulder while they scanned their self-concepts. What they scanned may have been accentuated by the realization that it was to be seen not only in one's own mind but also by another person, and this increased salience may have intensified the material's impact on the self-concept.

This "magnified scanning" hypothesis is consistent with the general view that people consider carefully the information others have about them (e.g., Baumeister, 1982; Schlenker, 1980, 1986). After all, when one is privately scanning information about oneself, there is little reason to be deeply struck or surprised or impressed by anything one finds, because one is merely reviewing self-knowledge. When revealing information to another, however, one is constructing one's public image, because that information becomes part of how one will be perceived by that person. In a sense, the self-presenter is choosing from among all of his or her self-knowledge (which will all still be there later) to share some selected information with other people. What the self-presenter chooses will be the core and essence of how these people will later perceive the self-presenter. Thus, by virtue of the audience's relative lack of knowledge about the self-presenter, these few facts become magnified in importance, whereas they may not have stood out for any particular reason among the self-presenter's own great mass of self-knowledge.

Finally, public circumstances may impair rather than facilitate the processing of information about the self, thereby preserving bias from being rectified. In this view, people have a large mass of potentially contradictory information about themselves, including knowledge that in different situations they have behaved differently (e.g., Jones & Nisbett, 1971). In private, people may scan for particular information, but extensive scanning would also reveal contradictory memories. People can furnish the requested information, but they simultaneously recognize conflicting evidence, which prevents them from being swayed or biased by the requested information. In Study 2, for example, when asked questions designed to elicit introverted behavior, subjects in the private condition may have also recalled instances of extraverted behavior (which they did not verbalize), and so the net effect was unbiased (or debiased) scanning, which would explain why no self-concept change resulted. In public, however, people may have devoted some of their attention to the interactive and self-presentational demands of the situation. This reduction in available cognitive resources might conceivably have suppressed their capacity for finding contradictory information, whereas the dominant response of scanning for confirmatory instances went on unimpaired.

This explanation would be consistent with emerging evidence about how self-presentation consumes cognitive resources (Baumeister et al., 1989; Paulhus & Levitt, 1987) and how the expectation of future interaction channels attention into thinking about the other person (Devine, Sedikides, & Fuhrman, 1989). It would also be consistent with evidence that cognitive load (or "cognitive busyness") increases correspondence bias (Gilbert, Krull, & Pelham, 1988; Gilbert & Osborne, 1989; Gilbert, Pelham, & Krull, 1988). Gilbert and his colleagues have shown that under cognitive load people tend to discount situational causes and overattribute behavior of other people to personality traits, and one could plausibly extend that argument to say that self-presentation produces cognitive load that results in overattribution of one's own behavior to one's own traits.

Like the second explanation, the cognitive load hypothesis predicts differences in how people responded to the questions, and again no differences were found, but the absence of such differences is inadequate to rule this explanation out. Another minor problem with the cognitive load hypothesis is that it posits that people engage in more thorough cognitive processing in private situations, when they do not have to do so, in contrast to the "cognitive miser" pattern, suggesting that people engage in the least amount of cognitive effort required (Fiske & Taylor, 1984). Indeed, Tetlock (1983) showed that people engage in the most thorough and complex cognitive processing in response to the demands of public situations, and so it seems somewhat implausible to propose that subjects in the private condition went to all the trouble of searching their memories for counterexamples. The cognitive load explanation would also seemingly predict that high self-monitors would be less affected than low
self-monitors (because high self-monitors presumably are more skilled at monitoring their own behavior and presumably have a wider, more discrepant range of past behaviors to review), contrary to the present findings, but this too is only a weak contradiction.³ Because it invokes multiple unsubstantiated assumptions, it must be considered tentative or even doubtful unless further research can provide more direct support for it.

Results emerging from another laboratory provide additional help in discriminating between these explanations. Schlenker, Dlugolecki, and Doherty (1992) showed that the internalizing effects of self-presentation were not undone by inducing corrective (opposite) biased scanning. That is, their subjects presented themselves in one fashion and then scanned their self-concepts for evidence of the opposite trait, but they still internalized their self-presentations. Moreover, self-presentationally magnified scanning without actual self-presentation (which they accomplished by telling subjects at the last minute that the anticipated interview was canceled) failed to produce internalization. These results contradict the view that biased scanning mediates the effect of public behavior on the self-concept (my second explanation). They also further weaken the case for the fourth (cognitive load) explanation, because that explanation is based on a lack of corrective cognition, whereas Schlenker et al's subjects showed internalization even after being specifically induced to engage in precisely such a corrective scanning process. Their results are most consistent with the "magnified scanning" explanation, which holds that public behavior intensifies the impact of biased scanning.

Temporary or Permanent Change?

One important issue in research on self-concept change is whether the observed changes are permanent or temporary. Consistent with previous findings (e.g., Fazio et al., 1981), the present research indicates only that the changes are not so completely temporary that they evaporate once the person leaves the immediate situation. As Experiment 2 showed, these changes are sufficiently enduring to be able to elicit consistent behavior in a subsequent situation with new interaction partners. In the present research, of course, subjects were carefully debriefed at the end, and so no lasting self-concept changes would likely be found in a delayed follow-up measure, but it is instructive to speculate whether (in the absence of debriefing) induced self-concept shifts could have persisted indefinitely.

At first blush, it seems implausible and even absurd to suggest that a few loaded questions could potentially change someone's self-concept for life. On the other hand, if such questions help crystallize and articulate a particular view of self, it could have a lasting influence. Persistence of such change could well be aided by several other processes. As noted earlier, researchers have argued and shown that multiple processes operate to maintain the self-concept and insulate it from change (e.g., Swann, 1987). If a change does occur, however small or brief it may be initially, it may then benefit from these processes, which in effect would defend the new self-concept from reverting to the previous one.

The present investigation's findings about the crucial role of interpersonal context suggest additional implications about the possibilities for enduring self-concept change. If the awareness of others is indeed crucial for fostering self-concept change, then the subsequent interpersonal context may be equally decisive in determining which changes endure and which ones evaporate. If a person changes his or her self-view in one context, such as during an encounter group or retreat, and then returns to the preexisting network of relationships, the altered view of self may be quickly dispelled. Opportunities for genuine, lasting change in the self-concept would therefore tend to be linked to entry into new social networks, such as moving to a new neighborhood, starting or ending college, entering or leaving military service, and changing jobs. In this connection, it is useful to examine brainwashing, which is aimed at bringing about lasting and fundamental changes in identity, self-concept, and attitudes. The most effective techniques for achieving such changes have relied on separating the individual from the old network of relationships, enmeshing the person briefly in a new network designed to foster the change, and then putting the suitably changed person into a new, permanent setting where the altered identity can become the firm, stable basis for long-term role performance (e.g., Lifton, 1957).

Conclusion

The present investigation began with the question of whether self-concept change through internalization was influenced by the interpersonal context, and the answer appears to be an emphatic yes. In fact, the present results cast doubt on whether people will internalize their behavior (i.e., alter their self-concepts to fit their recent behavior) in the absence of an interpersonal context and self-presentational concerns. In the public conditions, internalization effects were strong and consistent, and they extended to behavioral effects. The same behaviors performed in private conditions produced only weak and inconsistent patterns of reported self-concept change and no effects on behavioral measures. The present results suggest that biased scanning theory needs to be extended to accommodate interpersonal factors. Only when biased scanning is magnified by the presence, interest, and surveillance of other people does it produce significant and lasting change in the self-concept.

In 1902, Cooley proposed the "looking glass self" as a metaphor for how the self-concept is determined by the views of others, and many subsequent theorists and researchers have reconﬁrmed that other people's perceptions constitute an important part of the self and exert a strong inﬂuence on individuals' conceptions of themselves (e.g., Goffman, 1959; Mead, 1934; Schlenker, 1980; Sullivan, 1953; see also Baumeister, 1986, and Schlenker, 1986, for compilations). Wicklund and Gollwitzer (1982) have even asserted that people seemingly feel that their identity claims require validation by others to give them social reality. The present results show yet another way in which other people can inﬂuence the self-concept: Identical behaviors are internalized much more strongly when observed by others than when private or secret. The looking glass self

³ Thus, one might even propose that high self-monitors actually monitor the external situation, rather than themselves, and so they might have fewer attentional resources to devote to scanning their self-concepts for contradictory material.
may function as a magnifying glass during self-perception, so that what one sees in oneself while others are present has an extra powerful impact on the self-concept.

References


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1993 APA Convention "Call for Programs"

The "Call for Programs" for the 1993 APA annual convention appears in the October issue of the APA Monitor. The 1993 convention will be held in Toronto, Ontario, Canada, from August 20 through August 24. Deadline for submission of program and presentation proposals is December 10, 1992. Additional copies of the "Call" are available from the APA Convention Office, effective in October. As a reminder, agreement to participate in the APA convention is now presumed to convey permission for the presentation to be audiotaped if selected for taping. Any speaker or participant who does not wish his or her presentation to be audiotaped must notify the person submitting the program either at the time the invitation is extended or prior to the December 10 deadline for proposal submission.