# INTERPERSONAL RELATIONS AND GROUP PROCESSES

# Social Tuning of the Self: Consequences for the Self-Evaluations of Stereotype Targets

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These experiments examined how social interactions with individuals who ostensibly have stereotype-relevant views affect the self-evaluations of stereotype targets. Participants believed they were going to interact, or actually interacted, with a person who ostensibly had stereotype-consistent or stereotype-inconsistent views about their social group. Consistent with shared reality theory, participants' self-evaluations (Experiments 1, 2, and 3) and behavior (Experiment 2) corresponded with the ostensible views of the other person when affiliative motivation was high. This occurred even when it was likely to be detrimental to participants' nonaffiliative outcomes (Experiment 3). Experiment 4 showed that self-evaluative shift away from the ostensible views of another person was a function of social distance motives, also consistent with shared reality theory.

Keywords: shared reality theory, self-stereotyping, affiliation, interpersonal interaction, stigma

Stereotype-relevant expectancies have the potential to inform social interactions in many ways. Social psychological research has amply demonstrated that stereotypes are widely known, by some accounts widely shared, and remarkably stable over time (Devine, 1989; Devine & Elliot, 1995; Katz & Braly, 1933; Schaller, Conway, & Tanchuk, 2002). They also influence what people expect from others as well as how they evaluate and behave toward them (see Fiske, 1998; Hamilton & Sherman, 1994; Hilton & von Hippel, 1996, for reviews). Moreover, targets of stereotypes are well aware that such beliefs may influence how they are viewed and treated (Crocker, Major, & Steele, 1998). Given the pervasiveness of stereotypes and the number of ways in which they may color social perception, it is likely that people frequently interact with individuals who presumably view them through the lens of stereotypes. How does participating in such social interactions influence the way in which stereotype targets understand their own traits and abilities? This series of experiments seeks to address this question using shared reality theory as a framework. According to shared reality theory, affiliative motivation moderates the way in which individuals' self-understanding is influenced by the ostensible views of other social actors.

This perspective on how stereotypes influence self-evaluations heeds the call to understand stereotyping and prejudice processes in the interpersonal context in which they are enacted (Shelton, 2000). In addition, it suggests that self-stereotyping is situation specific, contingent on the perceived views of salient social interaction partners and the desire to form or maintain social bonds with them. Thus, it offers an alternative to perspectives implying that self-stereotyping is virtually unavoidable (Allport, 1954; Cartwright, 1950; Mead, 1934).

Several genres of theory and research have noted that taking the perspective of others in social interaction shapes one's own thought and beliefs. For example, symbolic interactionism contends that self-views are determined by how one thinks others view the self (e.g., Cooley, 1902; Mead, 1934; see Tice & Wallace, 2003, for a recent review). In essence, the self is thought to be like a mirror, passively reflecting the traits and abilities others think that person has. When used to understand how being a member of a stereotyped group affects self-evaluation, this perspective suggests that self-stereotyping (i.e., viewing traits stereotypically associated with one's group as indicative of the self) is virtually unavoidable (Allport, 1954; Cartwright, 1950; Crocker & Major, 1989). If the evaluations of others are seamlessly translated into self-evaluations, frequently engaging in social interactions in which one is viewed, or presumed to be viewed, in stereotypic terms should lead stereotype targets to view the self in a stereotypic manner.

Research on the intersection between communication and cognition, such as Higgins and colleagues' work on the "communi-

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cation game," also suggests that taking the perspective of others shapes our own beliefs. According to this work, expressing, or simply expecting to express, a belief entails following a number of rules (see Higgins, 1992; McCann & Higgins, 1992, for reviews). One such rule is that effective communication requires taking the perspective of the audience and adjusting the message such that the likelihood of mutual understanding (i.e., "shared reality") is enhanced (Krauss & Chiu, 1998; Krauss & Fussell, 1996). This accommodation to the audience's perspective, in turn, correspondingly shapes one's own understanding and memory of the belief (Higgins, 1992; Higgins & Rholes, 1978; McCann & Higgins, 1992). Although this perspective has not been used to understand fluctuations in self-understanding, let alone the self-views of stereotype targets, it suggests that individuals who are expressing themselves during an interaction with another social actor will consider this social actor's perspective to enhance shared reality and, in doing so, will inform their own self-understanding. To the extent that the other social actor's perspective is informed by stereotypes, or presumed to be so, social interactions with this person then become a vehicle by which stereotypes inform self-evaluations.

Building upon these perspectives, shared reality theory contends that taking the perspective of others shapes both what people know and their social interactions. It contends that taking the perspective of others to achieve perceived mutual understanding, or shared reality, is a means of fulfilling affiliative and epistemic needs (Hardin & Conley, 2001; Hardin & Higgins, 1996). Individuals develop shared reality with others to form and maintain social bonds, and this shared reality acts to substantiate their views of the world and themselves. One notion that flows from this basic contention is the affiliative social tuning hypothesis. Because achieving shared reality is thought to foster social bonds, it follows that people should experience a heightened desire to develop shared reality with another social actor to the extent that they are motivated to get along or foster social bonds with this person (i.e., they possess what we term affiliative motivation toward this person). One way for individuals to achieve this shared understanding is to "tune" their social beliefs toward the views of the other. That is, when affiliative motivation is high as opposed to low, individuals should attempt to achieve a sense of shared reality with others by adjusting their views, including self-views, to the ostensible views of others.

Although articulations of shared reality theory do not specifically address what will occur when affiliative motivation is low, the logic of this perspective suggests two possibilities. On one hand, it may be the case that social tuning simply is not warranted when affiliative motivation is low (i.e., nontuning). When affiliative motivation is low, there is no desire to build shared reality; therefore, other social actors' apparent evaluations of the self are irrelevant to self-understanding (Sinclair, Lowery, Hardin, & Colangelo, in press). On the other hand, it may be the case that when affiliative motivation is low, individuals adjust their views, including their self-views, away from those of another social actor as a means of distancing themselves from this person (i.e., *antituning*). That is, when affiliative motivation is low, individuals may seek to thwart the development of social bonds by thwarting shared reality. Such antituning effects were demonstrated with respect to explicit attitudes in the communication game research (Higgins,

1992). We will more fully explore the motivational underpinnings of antituning in a later experiment.

Support for the affiliative social tuning hypothesis comes from communication game research demonstrating that individuals' evaluations of novel others are shaped by the ostensible views of a social interaction partner when affiliative motivation toward that person is high. McCann and Hancock (1983) found that individuals who are chronically concerned with having smooth and pleasant social interactions (i.e., high self-monitors) tailor their messages about an unknown person to the ostensible views of an interaction partner more than do low self-monitors. Similarly, Higgins and McCann (1984) found that people high in authoritarianism, individuals who are chronically motivated to get along with those in power, are more likely to tailor messages about an unknown target person to the views of a high power audience than are those low in authoritarianism.

Although the research cited above demonstrates social tuning of newly acquired, and unimportant, attitudes (i.e., descriptions of an unknown person), a few existing lines of research suggest that the self is also subject to affiliative social tuning (Andersen & Chen, 2002; Baldwin, 1992), despite its greater elaboration and importance (e.g., Baumeister, 1998). Extant research on relational schemas and transference is consistent with affiliative social tuning of the self in that it shows that self-evaluations adjust toward the perceived views of important others (Baldwin, Carrell, & Lopez, 1990; Hinkley & Andersen, 1996). In this work, participants led to think about significant others, or individuals resembling significant others, evaluated themselves in a manner consistent with that person's perceived views of them. However, no self-evaluative shift occurred when participants were led to think about individuals who were unimportant to them. It is important to note though that transference and relational schema perspectives postulate a different mechanism by which self-evaluative shift occurs. The selves that emerge as a function of transference and relational schemas are thought to stem from the activation of self-with-other knowledge structures (Andersen & Chen, 2002) or "if . . . then" expectancies developed over time with significant others (Baldwin, 1992) rather than because of the desire to build social bonds, as shared reality theory postulates. Given that findings from these lines of research are thought to be predicated on the incorporation of the perceived views of long-term relationship partners into their self-evaluations, experiments demonstrating self-evaluative shift in response to the perceived views of a new social interaction partner who inspires high versus low affiliative motivation can distinguish these perspectives from shared reality theory.

Research on self-presentation provides some evidence of self-evaluative shift as a function of new social interactions (see Schlenker, 2003, for a recent review). The findings of Zanna and Pack (1975) are perhaps most relevant to the question addressed in this article. These authors argued that normative demands led women to self-present in a manner consistent with the perceived views of a desirable male social interaction partner. Consistent with this argument, they found that women who thought an attractive, as opposed to unattractive, man would see their responses described themselves and performed on a purported intelligence test in a manner that conformed to his stereotype-relevant views of women (see also von Baeyer, Sherk, & Zanna, 1981).

It is important to note, however, that although findings commonly interpreted as instances of self-presentation can also be

understood within the shared reality theory framework, there are important differences between these perspectives. There are two ways to think about self-presentation (Leary, 1995; Schlenker & Pontari, 2000; Schlenker & Weigold, 1992). First, restrictive conceptions of self-presentation define this phenomenon as the conscious and strategic manipulation of information about the self to gain social rewards such as power and approval (e.g., Jones & Pittman, 1982). Zanna and Pack (1975) used a restrictive selfpresentational interpretation of their findings. That is, they seemed to assume that a self-evaluative shift in their paradigm was deliberate and contingent on participants' belief that their responses would actually be evaluated by the other person. Second, expansive conceptions of self-presentation are much more inclusive with respect to what is considered an example of this phenomenon. According to this take, self-presentation is defined as any shift in self-evaluation that takes the perspective of an audience and the actor's goals into account (e.g., Schlenker, 2003; Schlenker & Pontari, 2000). As such, it contends that self-presentation can be consciously strategic or an unconscious product of habit, occurs in service of a myriad of motivations rather than just to gain social rewards, and includes self-evaluative shift in virtually any

In contrast to restrictive conceptions of self-presentation, shared reality theory postulates that self-evaluative shift as a function of perspective taking in social interaction reflects genuine changes in self-understanding that are not necessarily the product of conscious deliberation. Unlike expansive conceptions of selfpresentation, shared reality theory limits itself to explaining selfevaluative shift that is the product of affiliative and epistemic goals as well as specifying the direction of self-evaluative shift in response to these goals. In other words, the affiliative social tuning hypothesis of shared reality theory specifies that people will social tune when affiliative motivation is high even if other responses (e.g., self-enhancement or self-promotion) are equally plausible. Moreover, this hypothesis specifies the direction of self-evaluative shift; beliefs will shift toward those of another social actor when affiliative motivation is high but, possibly, shift away from another social actor when affiliative motivation is low.

# The Current Experiments

The current experiments examine how social interactions with individuals who ostensibly have stereotype-relevant views affect the self-evaluations of stereotype targets. On the basis of shared reality theory, we expected stereotype targets to see themselves in a manner more consistent with the ostensible views of another social actor when affiliative motivation toward that person is high versus low. As such, we had participants interact (Experiment 2) or led them to believe that they were going to interact (Experiments 1 and 3) with an individual who had either stereotype-consistent or stereotype-inconsistent views about a social group to which they belonged. We also manipulated (Experiments 1 and 3) or measured (Experiment 2) participants' affiliative motivation toward the other social actor.

Because Experiments 1–3 entail social interactions with new partners as opposed to close others, they were able to distinguish the predictions of shared reality theory from theory and research on relational schemas and transference. To distinguish our perspective from restrictive conceptions of self-presentation (e.g.,

Jones & Pittman, 1982), we told participants that the other social actor would not see their self-descriptions in Experiment 2. To distinguish our perspective from expansive conceptions of self-presentation (e.g., Schlenker, 2003), we created a situation in Experiment 3 in which self-enhancement and social tuning were equally plausible responses to examine whether social tuning would take precedence once affiliative motivation was engaged, consistent with shared reality theory. Finally, Experiment 4 sought to determine whether self-evaluative shift away from the perceived views of another social actor was driven by the motivation to distance oneself from that social actor, a prediction that is unique to shared reality theory.

Overall, the experiments operationalized others' views two ways and affiliative motivation four ways, employed both self-report and behavioral indicators of self-evaluation, and used two different stereotyped groups (i.e., women and African Americans). Thus, they have the potential to demonstrate both the veracity and robustness of the affiliative social tuning hypothesis.

# Experiment 1

The first experiment tested the affiliative social tuning hypothesis with respect to self-ratings on traits related to the stereotype of women. We employed a twofold manipulation of affiliative motivation to ensure sufficient experimental impact. Participants were told that they were going to have a relatively long interaction with someone who happened to share their birthday or a short interaction with someone whose birthday differed from theirs. We manipulated the ostensible views of the interaction partner by allowing participants to view a background packet supposedly completed by the other participant. Embedded within this packet was a questionnaire that conveyed that the person held stereotypeconsistent or -inconsistent views of women. On the basis of the affiliative social tuning hypothesis, we expected female participants' self-evaluations to be more stereotype consistent when they had high versus low affiliative motivation toward someone believed to hold stereotypic views of women. When the interaction partner was perceived to hold stereotype-inconsistent views of women, we expected participants' self-evaluations to be less stereotypic when they possessed high rather than low affiliative motivation toward this person. Male participants should not experience corresponding self-evaluative shift because the ostensible views manipulation dealt expressly with stereotype-consistent or -inconsistent views about women and not men. Because men did not have information about their social interaction partners' views of men, they did not have a basis for achieving shared reality via social tuning (Huntsinger & Sinclair, 2004).

## Method

## **Participants**

Eighty-three undergraduates (50 women and 33 men) at the University of Virginia participated in the experiment for partial fulfillment of a class requirement.

## Procedure and Materials

Participants were recruited via phone under the pretext that the experiment concerned rumors and that they would be interacting with another

participant. Upon arriving, participants were taken into a room by the experimenter and were asked to complete a short demographic questionnaire. Among the demographic information was a question about participants' birth date. After participants completed this information, the experimenter went into the next room to check on the purported other participant. Upon returning, participants were then verbally given information about the interaction partner (the person's birthday and gender; in all cases this person was female) and the amount of time the participant was to spend interacting with her. This information constituted our affiliative motivation manipulation. To ensure that this manipulation was sufficiently powerful, we simultaneously varied two pieces of information given to participants: (a) whether the interaction partner had the same birthday as them or a different birthday (Miller, Downs, & Prentice, 1998) and (b) the amount of time participants were purportedly to spend interacting with their partner, 30 min or 5 min (Berscheid, Graziano, Monson, & Dermer, 1976; Griffitt, 1968; Kelley & Thibaut, 1978). Thus, participants in the high affiliative motivation condition were told that the person had the same birthday as he or she did and were informed they would interact with the other participant for 30 min; participants in the low affiliative motivation condition were told that the person had a different birthday than he or she did and were told that they would interact with the other participant for 5 min.

Following the affiliative motivation manipulation, participants were informed that they would read information about their interaction partner to get a sense of this person. Participants were then handed a questionnaire supposedly filled out by the partner. This questionnaire included self-ratings on a number of personality traits, the Modern Racism Scale (McConahay, 1986), and a measure of attitudes toward women. The only items we varied were the attitudes toward women such that they were stereotype consistent or inconsistent.

Participants in the stereotype-inconsistent views condition read a questionnaire in which the last measure, entitled "Attitudes Toward Women," consisted of four items from the Modern Sexism scale (Swim, Aikin, Hall, & Hunter, 1995) and five items from the Attitudes Toward Women (ATW) scale (Spence, Helmreich, & Stapp, 1973) assembled in random order with a 7-point response scale, with 1 indicating *strongly disagree* and 7 indicating *strongly agree*. The interaction partners' responses to the various items were all consistent with having egalitarian or nontraditional views of women. For example, on the item "I like women who are caring and nurturing," the interaction partner purportedly circled "3," and on the item "Women often miss out on good jobs due to sexual discrimination," the interaction partner purportedly circled "7."

Participants in the stereotype-consistent views condition read a scale entitled "Attitudes toward Women," which consisted of five items from the Benevolent Sexism Inventory (BSI; Glick & Fiske, 1996) and four items from the ATW scale in random order on the same scale described above. The interaction partner's responses to the various items were all consistent with having paternalistic or benevolent views of women. We wanted to convey benevolent rather than overtly traditional views of women to maintain the potential likability of the interaction partner. For example, on the item "Women should be cherished and protected by men," from the BSI, the interaction partner purportedly circled "7," and on the item "I like women who are assertive and confident," from the ATW scale, the interaction partner purportedly circled "3."

After participants finished reading this information, the experimenter gave them a questionnaire to complete that ostensibly would be given to the other person so she could have some information about the participant. This questionnaire asked participants to rate themselves on a series of personality traits. The traits that constituted the dependent measure were embedded in this list. Once participants were finished, the experimenter collected this questionnaire and pretended to give it to the person in the other room. Meanwhile, participants were given a second questionnaire that included manipulation checks and a series of filler items. After

participants completed this second questionnaire, they were informed that there was no interaction and were debriefed.

#### Materials

Self-evaluation. Participant self-ratings on a series of masculine and feminine traits composed the self-evaluation measure. Participants rated how much 19 traits were indicative of their personality on a 7-point scale, with 1 indicating not at all and 7 indicating very much. These traits included 9 stereotypically masculine traits (athletic, competitive, confident, outspoken, intelligent, strong, aggressive, arrogant, and insensitive) and 10 stereotypically feminine traits (calm, caring, compassionate, faithful, attractive, sensitive, sweet, sad, shy, and weak). These traits were drawn from pilot testing designed to assess the stereotypes of men and women in the population under examination (N = 22). Participants were asked to rate the degree to which several traits were stereotypically associated with men (1) versus women (7). Traits that were significantly different from the neutral point (4) were selected for the stereotypic self-evaluations measure. To avoid overweighting items with larger variances (Smith, 2000), we transformed each individual item into a z-score (see Pinel, 1999; Simon & Hamilton, 1994, for similar approaches). This transformation was done within gender because we were interested in analyzing male and female participants separately. Next, to create our overall index of stereotype consistency or inconsistency of self-evaluation, we separately averaged the feminine traits ( $\alpha = .55$ ) and masculine traits ( $\alpha = .70$ ) and then subtracted the masculine traits from the feminine traits. The final measure of participants' self-evaluations was a difference score with higher numbers indicating self-evaluations that were more consistent with stereotypes of women.

Manipulation checks. To assess whether the manipulation of the other social actors' ostensible views was successful, we asked participants to indicate what they believed the interaction partner's gender-relevant views to be: "How much do you believe your partner values gender traditional people?" and "How much do you believe your partner values gender nontraditional people?" Both used a 7-point scale, with 1 indicating not at all and 7 indicating very much.

#### Results

## Manipulation Checks

To assess whether the manipulation of the ostensible views of the other social actor was successful, we entered each item (responses to valuing gender-traditional people and valuing gendernontraditional people) into a 2 (partner views: stereotype consistent, stereotype inconsistent)  $\times$  2 (affiliative motivation: high, low) × 2 (participant gender: female, male) analysis of variance (ANOVA). As expected, the stereotype-consistent views partner was perceived to value gender-traditional people (M = 5.51, SD =1.36) more than the stereotype-inconsistent views partner (M =3.02, SD = 1.56), F(1, 77) = 55.58, p < .001,  $\eta^2 = .42$ . Also as expected, the stereotype-consistent views partner was believed to value gender-nontraditional people less (M = 3.24, SD = 1.41)than the stereotype-inconsistent views partner (M = 4.96, SD =1.30), F(1, 77) = 29.11, p < .001,  $\eta^2 = .27$ . No other significant effects emerged for either manipulation check. As such, it is unlikely that participants paid more attention to the descriptions given to them in the high affiliative motivation conditions than in the low affiliative motivation conditions and likely that both women and men paid equal attention to the descriptions across conditions.

## Self-Evaluation

On the basis of shared reality theory, we predicted that when female participants' interaction partners were believed to hold stereotype-consistent views of women, participants' self-evaluations would be more stereotype consistent when they possessed high versus low affiliative motivation toward that partner. The opposite pattern was predicted to emerge when the interaction partner was believed to hold stereotype-inconsistent views of women. Finally, we did not expect men to evidence similar self-evaluative shifts because the other person's views about women are not germane to them.

To test these predictions, we conducted a 2 (partner views: stereotype consistent, stereotype inconsistent)  $\times$  2 (affiliative motivation: high, low)  $\times$  2 (participant gender: female, male) between-participants ANOVA on participants' responses to our self-evaluation measure. As expected, the only reliable effect to emerge was a three-way interaction between partner views, affiliative motivation, and participant gender, F(1, 75) = 6.11, p = .016,  $\eta^2 = .08$ . To more fully explore this three-way interaction, we conducted separate ANOVAs on female and male participants' responses to the measure of self-evaluation.

First, as predicted and consistent with the affiliative social tuning hypothesis, the only effect to emerge for female participants was a two-way interaction between partner views and affiliative motivation,  $F(1, 46) = 6.97, p = .011, \eta^2 = .13$  (see Figure 1). As hypothesized, when the ostensible views of the interaction partner were stereotype consistent, women's self-evaluations were more stereotype consistent when they possessed high affiliative motivation (M = 0.17, SD = 0.54) than when they possessed low affiliative motivation (M = -0.35, SD = 0.65) toward that partner, F(1, 46) = 3.20, p = .04, one-tailed,  $\eta^2 = .07$ . The opposite pattern of self-evaluations was found when the ostensible views of the interaction partner were stereotype inconsistent; women's selfevaluations were more stereotype inconsistent when they possessed high affiliative motivation (M = -0.16, SD = 0.67) than when they possessed low affiliative motivation (M = 0.41, SD =0.93), F(1, 46) = 3.77, p = .03, one-tailed,  $\eta^2 = .07$ . Furthermore, investigation of male participants' responses yielded no reliable main effects (both ps > .13), and the interaction between partner

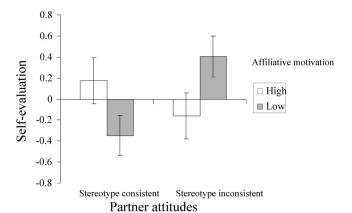


Figure 1. Female participants' stereotypicality of self-evaluation as a function of affiliative motivation and the ostensible attitudes of an interaction partner in Experiment 1.

views and affiliative motivation did not reach significance, F(1, 29) = 1.18, p = .29.

#### Discussion

Consistent with the affiliative social tuning hypothesis, female participants' self-evaluations were more stereotype consistent when they had high versus low affiliative motivation toward an interaction partner who purportedly had stereotypic views of women but were more stereotype inconsistent when they had high versus low affiliative motivation toward an interaction partner who purportedly had stereotype-inconsistent views of women. Also as predicted, male participants' self-evaluations did not reliably differ across conditions. We expected male participants in this experiment to refrain from social tuning because our manipulation of partner views was specific to their interaction partner's ostensible views of women and not men. Because the partner's ostensible views were not relevant to the self-evaluations of male participants, these participants did not have a basis for social tuning and, therefore, did not engage in this process. We have found evidence of the moderating role of the relevance of an interaction partner's views on affiliative social tuning in other work (Huntsinger & Sinclair, 2004).

One could argue that the gender difference in social tuning found in this experiment occurred because men are less interpersonally orientated than women (e.g., Cross & Madon, 1997; Tannen, 1990) and, therefore, are not driven by affiliative motivation to engage in social tuning. However, we do not think this is the case for two reasons. First, both the birthday (Miller et al., 1998) and length of interaction manipulations (Berscheid et al., 1976; Griffitt, 1968) have been shown to have similar effects on indicators of men's and women's affiliative motivation. Second, research in our lab and other labs have previously demonstrated affiliative social tuning among both men and women as a function of measured or manipulated affiliative motivation (Higgins & McCann, 1984; Huntsinger, 2003; McCann, Higgins, & Fondacaro, 1991; Sinclair et al., in press). It should also be noted that male participants did notice the differences between the interaction partner's views, so the lack of self-evaluative shift among men cannot be accounted for by differential effectiveness of the perceived views manipulation.

Inspection of women's responses also revealed the presence of antituning on the part of participants who had low affiliative motivation; they contrasted their self-evaluations away from the ostensible views of their interaction partner. Although not explicitly postulated by shared reality theory, such antituning effects may be driven by the desire to distance from one's interaction partner, mirroring the explicitly postulated tendency to social tune when one desires to form social bonds with one's interaction partner. The motivational underpinning of this antituning effect, and therefore its consistency with shared reality theory, will be addressed in more detail in Experiment 4.

In Experiment 2, we sought to replicate the findings from Experiment 1 by use of a different means of assessing the effect of

<sup>&</sup>lt;sup>1</sup> For all simple effects analyses exploring interactions, we are employing one-tailed tests because of strong, theoretically driven directional hypotheses about mean differences (Abelson, 1995).

affiliative motivation and to provide evidence that individuals also tune their behavior during an actual social interaction. We measured affiliative motivation in Experiment 2. This avoids interpretational problems that may have been inherent in the manipulation of affiliative motivation employed in Experiment 1 (i.e., birthday and length of interaction were confounded). To rule out a strict behavioral confirmation interpretation of our findings (see Claire & Fiske, 1998; M. Snyder & Stukas, 1999, for reviews), we had participants interact with a confederate who was unaware of the condition participants were assigned. Because the confederates did not have systematic expectancies about the participants they interacted with, their initial expectancies and actions could not be responsible for behavioral effects.

# Experiment 2

To examine affiliative social tuning of the self, we had female participants complete one of two scales designed to asses their likely interest in new social bonds prior to interacting with a male confederate they thought had either stereotype-consistent or -inconsistent views of women. We expected participants' self-evaluations and behaviors during an actual social interaction to correspond to the ostensible views of their social interaction partner when they were more versus less interested in bonding with a new social interaction partner.

## Method

## **Participants**

Seventy-five women from the University of California, Los Angeles participated in this experiment for partial fulfillment of a class requirement.

## **Procedure**

Participants were recruited by telephone for an experiment on first impressions. Upon entering the lab, participants saw 1 of 3 European American male confederates completing a questionnaire. Once participants began reading their consent forms, the male confederate claimed he had completed his questionnaire and was asked by the experimenter to wait outside. After the confederate left the room, participants were asked to complete a questionnaire designed to give the researchers "a sense of their current relationships." At this stage of the procedure, participants were randomly assigned to complete one of two scales. Approximately half of the participants completed a scale designed to assess their current sense of loneliness (e.g., "Have you ever felt alone?" "Have you ever felt vou lack companionship?" These items were adapted from the UCLA Loneliness Scale; Russell, Peplau, & Cutrona, 1980). The remaining participants completed a scale composed of questions designed to assess their sense of feeling socially overburdened (e.g., "Have you ever felt your companions get in the way of the other things you want to do?" "Have you ever felt you have too many friends and no time for yourself?"). Participants indicated their agreement with items from each scale by indicating "yes" or "no" to each. Completion of the loneliness versus social overburden scales was originally intended as a manipulation of affiliative motivation. Guided by the research of Tice (1992), we worded the questions such that we expected participants to answer yes to the majority of them and, thus, see themselves as being consistent with the type of scale completed. However, participants used the full range of each of scale, preventing us from using the type of scale completed as a manipulation but allowing us to treat responses as individual difference measures of affiliative motivation. We summed the total number of yes responses to each scale and reverse-coded responses to

the social overburden scale so that higher numbers on both scales indicated greater interest in new social bonds. The virtues of using two measures of affiliative motivation are (a) we are able to demonstrate the generalizability of the effect by determining whether two different operationalizations of affiliative motivation work similarly and (b) having two scales worded in the opposite direction prevents response bias (e.g., the tendency to answer yes to all questions) for accounting for the effects of the measure.

Participants were then told that to familiarize themselves with the person they would be interacting with, they would be allowed to look over the background questionnaire their interaction partner purportedly completed shortly after they walked in. This questionnaire constituted the manipulation of partners' views and was identical to the one used in Experiment 1. The confederate was kept unaware of condition by our having him pretend to write on a blank page at the end of the precompleted packet.

After participants reviewed the background questionnaire, the experimenter exclaimed that earlier she forgot to have participants complete a short questionnaire "for our files" and asked participants to complete it presently. Responses on this questionnaire constituted the self-evaluation measure. Following completion of this measure, the experimenter retrieved the confederate from the hallway and led the participant and him into an adjoining room where they engaged in a 5-min unstructured interaction. Participants were told to have a normal conversation with this person and were given no instructions as to what to discuss or the length of the interaction. The confederates were instructed to have a natural conversation with the participant. If conversation slowed, they were told to ask participants how their classes were going or what the participant had planned for the weekend. However, confederates reported not having to rely on these predetermined probes because the conversations were generally smooth and pleasant. After the interaction, both the participant and the confederate completed postinteraction questionnaires separately.

#### Materials

Self-evaluation. Participants rated how much several traits were indicative of their personality, with 1 indicating not at all and 7 indicating very much. These included nine masculine traits (athletic, arrogant, crude, egotistical, independent, logical, messy, rational, and strong) and nine feminine traits (caring, emotional, fussy, insecure, kind, patient, sensitive, sentimental, and weak). We selected these traits on the basis of pilot tests using UCLA undergraduates (N = 24) to ensure that they captured local stereotypes of men and women. As in Experiment 1, we converted each item into a z-score and then averaged the male ( $\alpha = .70$ ) and female traits ( $\alpha = .61$ ) such that higher numbers indicated greater stereotypicality of self-evaluations.

Confederate ratings of behavior. To assess whether participants' stereotype-relevant behavior was affected by the manipulations, confederates rated how gender traditional the participants had appeared during the interaction using two items, "How gender stereotypical did she seem during the interaction?" and "How gender nonstereotypical did she seem during the interaction?" on a 7-point scale, with 1 = not at all and 7 = very much. Confederates also answered the question "How positive versus negative was the interaction?" on a 7-point scale, with 1 = very positive and 7 = very negative. Because we wanted the behavioral and self-report measures on the same scale and because the two items were highly correlated, r(68) = -.70, p < .0005, we transformed the behavioral items into z-scores and combined them such that higher numbers indicated greater stereotypicality of behavior.

Manipulation checks. We asked participants what they believed their interaction partner's attitudes toward women were. Measured on a 7-point scale, with 1 = not at all and 7 = very much, the two questions we asked were "How gender traditional are his views concerning women?" and "How gender nontraditional are his views concerning women?"

#### Results

## Manipulation Checks

To examine whether our manipulation of the other social actors' ostensible views was successful, we conducted a 2 (partner views: stereotype consistent, stereotype inconsistent)  $\times$  2 (affiliative motivation: high, low) between-participants ANOVA on the measures of perceived views. As expected, the stereotype-consistent views partner was perceived to value gender-traditional people ( $M=5.23,\ SD=1.29$ ) more than the stereotype-inconsistent views partner ( $M=3.69,\ SD=1.69$ ),  $F(1,71)=17.76,\ p<.001,\ \eta^2=.20$ . Also, the stereotype-consistent views partner was believed to value gender-nontraditional people less ( $M=4.03,\ SD=1.41$ ) than the stereotype-inconsistent views partner ( $M=5.17,\ SD=1.18$ ),  $F(1,71)=11.47,\ p<.002,\ \eta^2=.14$ . No other significant effects emerged for either manipulation check.

# Self-Evaluation

We predicted that women would assimilate their selfevaluations and behavior toward the ostensible views of their social interaction partner when they were more versus less interested in new social bonds. To test this prediction, we created two affiliative motivation groups by splitting responses on the loneliness and social overburden scales at the median. Because preliminary analyses indicated that type of scale participants completed did not differentially impact either of the dependent variables, we then conducted a 2 (partner views: stereotype consistent, stereotype inconsistent)  $\times$  2 (affiliative motivation: high, low) betweenparticipants ANOVA on participants' responses to the selfevaluations measure. The only reliable effect to emerge from this analysis was the predicted interaction between partner views and affiliative motivation, F(1, 71) = 5.88, p = .018,  $\eta^2 = .08$  (see Figure 2). Consistent with the affiliative social tuning hypothesis, when the interaction partner's ostensible views about women were stereotype consistent, participants' self-evaluations were more stereotype consistent when they possessed high affiliative motivation (M = 0.17, SD = .85) than when they possessed low affiliative motivation (M = -0.24, SD = .70), F(1, 71) = 2.80, p = .05,one-tailed,  $\eta^2 = .04$ . This pattern was reversed when the ostensible

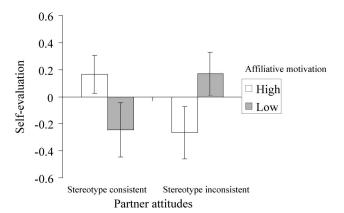


Figure 2. Participants' stereotypicality of self-evaluation as a function of affiliative motivation and the ostensible attitudes of an interaction partner in Experiment 2.

views of the interaction partner were stereotype inconsistent, with participants' self-evaluations being more stereotype inconsistent in the high affiliative motivation condition (M = -0.27, SD = 0.72) than the low affiliative motivation condition (M = 0.17, SD = 0.54), F(1, 71) = 3.08, p = .04, one-tailed,  $\eta^2 = .04$ .

## Stereotypicality of Behavior

We hypothesized that participants' behavior would also be subject to affiliative social tuning. To test this prediction, confederate ratings of participants' behavior were entered into a 2 (partner views: stereotype consistent, stereotype inconsistent)  $\times$  2 (affiliative motivation: high, low) between-participants analysis of covariance with the positivity–negativity of the interaction entered as the covariate. There was no effect of confederate, so this variable was not included in the presented analyses, F < 1.0, p > .53. We controlled for the positivity–negativity of the interaction to remove any effects resulting from differences in the tenor of the unstructured interaction due to idiosyncratic differences such as the participants' attractiveness, topic of conversation, and so forth. Because the covariate was significant, F(1, 64) = 7.83, p = .007,  $\eta^2 = .11$ , we report adjusted means and standard errors associated with those means below.

Again, the only reliable effect to emerge was the predicted two-way interaction between partner views and affiliative motivation, F(1, 64) = 6.15, p = .016,  $\eta^2 = .09$  (see Figure 3). Consistent with predictions, participants' behavior was also found to vary according to affiliative motivation and the ostensible views of the interaction partner. As expected, participants interacting with someone believed to hold stereotype-consistent views of women displayed greater stereotypicality of behavior when they had high affiliative motivation (M = 0.39, SE = 0.36) than when they had low affiliative motivation (M = -0.65, SE = 0.46), F(1,64) = 3.24, p = .04, one-tailed,  $\eta^2$  = .05. The opposite pattern of behavior emerged when the interaction partner was believed to hold stereotype-inconsistent views, with those participants possessing high affiliative motivation evidencing less stereotypic behavior (M = -0.64, SE = 0.50) than those possessing low affiliative motivation (M = 0.46, SE = 0.40), F(1, 64) = 2.95, p = 0.40.05, one-tailed,  $\eta^2 = .04$ .

## Discussion

Across both self-report and behavioral measures, we found support for the affiliative social tuning hypothesis. When interacting with another social actor believed to hold stereotype-consistent views of women, female participants came to see themselves as more stereotypically feminine and behaved in a more stereotypically feminine manner when they were more versus less interested in bonding with a new social interaction partner. In contrast, when the interaction partner was believed to hold stereotype-inconsistent views of women, participants' self-evaluations and behaviors were less stereotypic when they were more versus less interested in new social bonds. The results of this experiment replicate those of Experiment 1 with a different operationalization of affiliative motivation and extend them by demonstrating behavioral implications of affiliative social tuning. As in Experiment 1, we also found evidence of antituning of both self-evaluations and behavior among participants in the low affiliative motivation conditions.

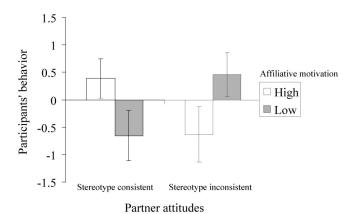


Figure 3. Stereotypicality of participants' behavior as a function of affiliative motivation and the ostensible attitudes of an interaction partner in Experiment 2.

It is unlikely that behavioral confirmation processes can explain the behavioral effects in this experiment (Darley & Fazio, 1980; M. Snyder & Stukas, 1999). According to research on behavioral confirmation, perceivers act to fulfill their expectancies, and these actions cause targets to behave in an expectancy congruent fashion (Copeland, 1994; Darley & Fazio, 1980; M. Snyder & Haugen, 1995; M. Snyder & Stukas, 1999). In contrast, affiliative social tuning should occur because stereotype targets adjust their own self-evaluations and behaviors to the expectations of others in an effort to build and foster social bonds, independent of the other person's behavior. Because we did not give the confederates any information about the target, including which experimental condition they were in, it is unlikely that systematic expectations on the part of the confederate, and behaviors enacted based on these expectations, elicited expectancy consistent behaviors from our participants. Rather, participants are tuning their behavior to the ostensible views of their interaction partner. As such, the demonstrated behavioral effects can be explained by affiliative social tuning and not explained by behavioral confirmation.

Also, although the results thus far have been quite reminiscent of Zanna and Pack's (1975) study, there are several important differences. First, it is somewhat remarkable that we find a similar pattern of results as these researchers given that almost 30 years have intervened between their work and ours. At the time the data in Zanna and Pack's study were collected, the women's movement was just blossoming; in fact, participants in that experiment were among the first undergraduate women to be admitted to Princeton University. Princeton admitted about 100 women in 1969, but substantial numbers of women were not present on campus until 1974 (Fernandez, n.d.). As such, female participants in their experiment may have been especially vulnerable to selfpresentational concerns given their insecure status on campus and the markedly gender-traditional climate within which they found themselves (Fernandez, n.d.). Second, the research of Zanna and Pack used only cross-sex interactions, and the authors seemed to assume that this type of interaction was necessary to obtain the effect. That is, they seemed to assume their effect was driven by romantic attraction, or lack thereof, between participants and their fictitious male partner. In contrast, our first experiment demonstrated affiliative social tuning in a same-sex interaction. These results are difficult to explain with romantic attraction. Third, Zanna and Pack interpreted their findings as the product of deliberate self-presentation and seemed to assume that their effect was contingent on participants' belief that their social interaction partner would evaluate their responses. However, to gain some leverage against this type of self-presentation argument in Experiment 2, we adjusted the paradigm such that participants were aware of the other social actor's views when they provided their self-evaluations but did not think this person would ever examine their responses. Finally, Zanna and Pack did not find nor predict an antituning effect when affiliative motivation was low like that found in Experiments 1 and 2.

To further distinguish the affiliative social tuning hypothesis from perspectives on self-presentation, we created a situation in Experiment 3 that pitted social tuning against self-enhancement. Because expansive conceptions of self-presentation claim that it stems from a multitude of motivations and yield various types of self-evaluative shift, this perspective cannot make an a priori prediction regarding whether self-enhancement or social tuning will ensue. However, according to shared reality theory, when affiliative motivation is engaged, people will social tune—even at the expense of self-enhancement or self-promotion goals.

## Experiment 3

We conducted a third study to attempt to further distinguish affiliative social tuning from self-presentation and to provide evidence that the demonstrated effects generalize to another stigmatized group, African Americans. One of the central stereotypes about African Americans is that they are intellectually inferior (Devine & Elliot, 1995). Because this stereotype exists, we were able to set up a conflict between affiliative social tuning and self-enhancement or self-promotion. Specifically, we led participants to believe that they were competing for a slot on a prestigious academic team and a monetary prize. If, on the one hand, our participants were motivated by self-enhancement concerns, this situation should have uniformly called out for a maximization of their academic self-evaluations. If, on the other hand, affiliative social tuning was taking place, participants' academic selfevaluations should have varied as a function of the ostensible views of others and affiliative motivation, regardless of whether these self-evaluative shifts conflicted with their chances of making the academic team.

Neither restrictive nor expansive conceptions of selfpresentation are able to predict what will occur in this situation. Given that most research on self-presentation focuses on the management of self-descriptions to look positive (Baumeister, 1998; Jones & Pittman, 1982; Schlenker, 2003; Schlenker & Weigold, 1992), if anything, this perspective suggests that self-enhancement will ensue. Indeed, Tice and colleagues (Tice, Butler, Muraven, & Stillwell, 1995) documented that self-enhancement is the default manner of self-presentation to strangers, precisely the type of situation participants were confronted with in our experiments. However, on the basis of the affiliative social tuning hypothesis, we expected self-evaluations of African Americans to vary as a function of affiliative motivation and the ostensible views of others. When their interaction partner likely possessed stereotypic views of African Americans, participants' academic selfevaluations should be lower (consistent with the stereotypes of this

group) when they have high as opposed to low affiliative motivation toward this person—even though this would be detrimental to their chance of getting on the academic team. In contrast, when their interaction partner likely held nonstereotypic views of African Americans, participants' academic self-evaluations should be higher when they have high versus low affiliative motivation toward this person.

#### Method

## **Participants**

Thirty-three African American undergraduates at the University of Virginia were recruited to participate in this experiment. They received partial course credit toward completion of a class requirement or were paid \$7 for their participation. Four participants were removed from the present analyses because of strong suspicion. None of the 4 believed that there was an academic team. Results are based on 29 participants.

## Procedure

Upon arrival, the experimenter informed the participant that he or she had the opportunity to become a member of a scholastic team and could win \$20 if they qualified to join. As the experimenter and participant walked to the experiment room, they passed a room with the door ajar and the light on. While passing the room, the experimenter informed the participant that either (a) the team leader was already here and would be deciding whether he or she made the team or (b) another participant, who was a potential teammate, had arrived early and was filling out the experiment materials. This was the affiliative motivation manipulation. Previous research suggests that individuals are more motivated to get along with people who have power over them (i.e., the team leader) than people of equal power (Copeland, 1994; M. Snyder & Haugen, 1995; M. Snyder & Stukas, 1999). The experimenter then led the participant to the experiment room.

Once seated, participants were again informed that they would be filling out a questionnaire that would determine whether they became a member of the scholastic team. The experimenter then handed them an informed consent sheet and told the participant that she was going to check in with the team leader (or she was going to check on the other potential teammate) and would return shortly. The experimenter waited approximately 2 min and then returned to the experiment room waving a Polaroid picture to make it appear as if it had just been taken. She then told the participant that the team leader (or the other potential team member) wanted to give the participant some information about himself so that the participant would have an idea what the people on the team would be like. This information constituted the partners' view manipulation.

The experimenter then handed participants the photograph and verbally described the person purportedly in the other room. In the stereotypeconsistent views condition, "David" was described as an economics major who liked classic rock, played golf, and wanted to be a corporate lawyer. A Polaroid picture of a European American university student accompanied this description. In the stereotype-inconsistent views condition, David was described as a sociology major who liked hip-hop music, volunteered at a local charity, and wanted to be a civil rights attorney. The same picture also accompanied this description. Other generic information common to both descriptions was used to lessen suspicion and to flesh out the descriptions. We selected these descriptions on the basis of the results of pretesting using a separate sample of African American students. In pretesting, participants (n = 20) reported how prejudiced they thought the person described was on a 7-point scale, with 1 indicating not at all and 7 indicating very much. Results of a one-way ANOVA revealed a significant difference between the two descriptions, F(1, 18) = 9.80, p = .01,  $\eta^2 =$ .35. The person depicted in the stereotype-consistent views description was rated as more prejudiced (M = 4.13, SD = 0.47) than the person depicted in the stereotype-inconsistent views description (M = 2.25, SD = 0.38).

The experimenter then handed participants a questionnaire containing the primary dependent measure, manipulation checks, and filler items and informed them that their answers to the questionnaire would be used to determine whether they became a member of the scholastic team. She then left the room to allow participants to complete the questionnaire. When participants were finished, they retrieved the experimenter from the hallway. The experimenter then thoroughly probed participants for suspicion and debriefed them.

#### Materials

Academic self-evaluation. Steele and Aronson's (1995) measure of academic investment was embedded in the questionnaire that participants believed would be the basis of selection onto the scholastic team and served as our self-evaluation measure. Participants were asked three questions: "How would you rate your overall academic ability?" ( $1 = not \ your \ your \ your \ your \ your \ you \ you$ 

Manipulation checks. Manipulation checks consisted of questions asking participants to recall items from the description of David. There were four specific aspects of the description that we used to convey David's ostensible views: David's major, musical tastes, sport he liked to play, and career aspirations. Therefore, we included four free recall items asking participants for these details about David ("What was David's major?" "What sport did David like to play?" "What were David's musical tastes?" "What career did David wish to pursue?"). In addition, on separate 7-point scales  $(1 = not \ at \ all, 7 = very \ much)$ , participants were asked to rate the degree to which they believed David was looking for a partner who was intelligent or academic ("How intelligent does David want his partner to be?" and "How academically talented does David want his partner to be?"). These items were averaged to form a scale measuring qualities that participants thought David wanted in a partner. The remainder of the questionnaire consisted of filler items designed to bolster the cover story and alleviate any suspicions held by participants about the true nature of the experiment.

#### Results

# Manipulation Checks

To be confident that participants paid sufficient attention to the four important elements of the descriptions of David, we summed the number of correctly recalled parts of the description and divided by 4 to yield percentage recalled. Overall, participants showed acceptable recall of the description of their partner (M = 82%, SD = 11%). A 2 (partner views: stereotype consistent, stereotype inconsistent)  $\times$  2 (affiliative motivation: high, low) ANOVA on percentage recalled yielded no significant effects, suggesting that participants paid similar levels of attention to the description of David irrespective of condition. The same analysis on the item asking what David wanted in a potential team member also yielded no significant effects. Therefore, regardless of the description, participants thought David wanted an intelligent (M = 6.14, SD = 1.06) and academic partner (M = 5.86, SD = 1.38).

#### Academic Self-Evaluation

On the basis of the affiliative social tuning hypothesis, we predicted that when African American participants thought that the other social actor held stereotype-consistent views of their group, their academic self-evaluations would be lower when they possessed high versus low affiliative motivation toward him. In contrast, when participants believed that the other social actor held stereotype-inconsistent views of African Americans, their academic self-evaluations should be higher when they are experiencing high versus low affiliative motivation. To test this hypothesis, we conducted a 2 (partner views: stereotype consistent, stereotype inconsistent) × 2 (affiliative motivation: high, low) betweenparticipants analysis of covariance on participants' responses to the academic self-evaluation measure with SAT math and verbal scores as covariates in the analyses. SAT verbal was a significant covariate, F(1, 23) = 7.88, p = .01,  $\eta^2 = .26$ , and SAT math was not a significant covariate, F(1, 23) = 1.50, p = .23,  $\eta^2 = .06$ . The adjusted means and standard errors reported below are corrected for both.

As predicted, the interaction between partner's views and affiliative motivation was the only reliable effect to emerge, F(1, 23) =7.25, p = .013,  $\eta^2 = 24$  (see Figure 4). Consistent with the affiliative social tuning hypothesis, we found that when participants thought their interaction partner likely held stereotypeconsistent views of African Americans, their academic selfevaluations were marginally lower when they had high (M =-0.24, SE = 0.24) as opposed to low affiliative motivation (M =0.31, SE = 0.25) toward him, F(1, 23) = 2.45, p = .065, onetailed,  $\eta^2 = .10$ . In addition, the opposite pattern of academic self-evaluations emerged when their interaction partner was believed to have stereotype-inconsistent views. In this case, African Americans' academic self-evaluations were higher when participants had high (M = 0.44, SE = 0.23) versus low affiliative motivation toward him (M = -0.36, SE = 0.24), F(1, 23) = 4.64,p = .02, one-tailed,  $\eta^2 = .17$ .

## Discussion

The results provide further support for affiliative social tuning of the self. African American participants' self-views corre-

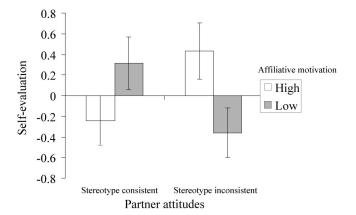


Figure 4. African Americans' academic self-evaluations as a function of affiliative motivation and the ostensible attitudes of an interaction partner in Experiment 3.

sponded to those of their social interaction partners when affiliative motivation was high versus low. What is startling about these results is that African Americans rated themselves as less academically talented when the very person choosing members for the academic team was likely to have stereotypic views. This occurred despite the fact that the situation, an academic team challenge, calls out for maximizing the positivity of their academic selfevaluations. One might have reasonably expected that participants would attempt to make the team by putting their best academic foot forward in all conditions because participants believed David wanted a partner who was intelligent and academic. This was not the case. Rather, participants tuned their self-evaluations toward the other person's expectations of their ethnic group. As in the first two experiments, participants in the low affiliative motivation conditions shifted their self-evaluations away from the ostensible views of their interaction partner (i.e., antituned).

## Experiment 4

Experiments 1–3 provide clear support for the affiliative social tuning hypothesis of shared reality theory; in each experiment, participants tuned their self-evaluations to the perceived views of a social interaction partner when affiliative motivation was high versus low. However, close examination of the means in each experiment reveals that participants also tuned their selfevaluations away from the perceived views of their partner when affiliative motivation was low (i.e., antituning). Although statements of shared reality theory focus on creation and maintenance of social bonds via shared reality (Hardin & Conley, 2001; Hardin & Higgins, 1996), the logic of this perspective also suggests that individuals may prevent the formation and maintenance of social bonds by thwarting shared reality. In other words, mirroring the tendency to social tune toward others to solidify the social bond via increased shared reality, people tune away from the perceived views of others to keep social interactions distant by avoiding shared reality (Higgins, 1992).

Although this is our preferred explanation of the antituning effects, the specific motivational underpinnings of antituning in this series of experiments, and other work (e.g., Higgins, 1992), remains unclear. Other interpersonal motives provide plausible explanations for this effect. For example, antituning may also result from psychological reactance (Brehm, 1966) or a threat to autonomy and personal freedom (Baer, Hinkle, Smith, & Fenton, 1980; Heilman & Toffler, 1976). When confronted with another social actor of known views about one's group and, by extension, the self, participants may have felt their sense of autonomy threatened because they saw these views as constraining to their individuality (e.g., they believed that they were seen in stereotypeconsistent or -inconsistent terms only). This feeling may have led them to contrast their self-evaluations away from the other social actor's ostensible views to maintain a sense of autonomy. The role of reactance in self-evaluative shift may have been moderated by affiliative motivation because the goal of forming a social bond overshadowed any desire to reassert control over their selfdefinition in the high affiliative motivation conditions. However, in the low affiliative motivation conditions, reactance motives dominated because no affiliative goal was operative.

Antituning may also stem from perceived threat to participants' need for uniqueness (C. R. Snyder & Fromkin, 1977). Participants

may have felt that the other social actor believed them to be similar to, and thus not unique from, other members of their group. This threat could have then led participants to reassert their uniqueness by shifting their self-evaluations away from this person's views of their group, thus maintaining a sense of uniqueness. Again, the role of this motive in self-evaluative shift may have been moderated by affiliative motivation because participants' desire to form a social bond with their interaction partner overrode their desire to be seen as unique in the high but not low affiliative motivation conditions.

We conducted a fourth experiment designed to determine which of these potential motives accounted for antituning. Borrowing a mind-set priming procedure developed by Chen and colleagues (Chen, Shechter, & Chaiken, 1996), we primed participants with a social distance motive, reactance or need for uniqueness motive, or no motive, prior to a supposed imminent interaction with an individual who had stereotype-consistent views of women. On the basis of the logic of shared reality theory, we hypothesized that participants primed with the social distance motive would contrast their self-evaluations away from ostensible views of their interaction partner, evidencing the least stereotype-consistent self-evaluations of the four groups.

#### Method

## **Participants**

Twenty-eight female undergraduates at the University of Virginia participated in the experiment in exchange for partial fulfillment of a course requirement.

# Procedure

The procedure was the same as that of Experiment 1 except for three changes. First, all participants were led to believe that their purported social interaction partner had stereotype-consistent views of women. Second, we did not employ the same manipulation of affiliative motivation. That is, participants were not told the length of the imminent interaction with their partner or any information about this person's birth date. Third, after reading the questionnaire supposedly completed by their interaction partner, participants were given what they were told was a filler task to create a delay prior to the interaction. As part of this ostensible filler task, they read two scenarios and were asked to imagine themselves in the situation described in each scenario. Participants were given 2 min to read and respond in writing to each scenario. This supposed filler task was a motivation manipulation modeled after the mind-set priming procedure developed by Chen and colleagues (1996). Participants read one of four types of scenarios; each either depicted a motive that may account for the antituning effects in Experiments 1-3 (social distancing, reactance, need for uniqueness) or was neutral (see the Appendix for one version of each scenario). Both of the scenarios that participants read depicted the same motive. Pilot testing revealed that each scenario elicited responses consistent with the primed motive and that each scenario primed only the desired motive.<sup>2</sup> The remainder of the procedure remained the same as that of Experiment 1.

## Materials

Self-evaluation. Participants' self-ratings on a series of masculine and feminine traits composed the self-evaluation measure. Participants rated each trait on a 7-point scale ranging from 1 = not at all to 7 = very much. These traits included 11 stereotypically masculine traits (athletic, competitive, confident, outspoken, intelligent, strong, aggressive, arrogant, insensitive, stubborn, and masculine) and 11 stereotypically feminine traits

(calm, caring, compassionate, faithful, attractive, sensitive, sweet, sad, shy, weak, and feminine). Participants' responses to the masculine traits were z-scored and averaged ( $\alpha = .80$ ), as were their responses to the feminine traits ( $\alpha = .60$ ). The composite of responses to the masculine traits was then subtracted from the composite of responses to the feminine traits. These transformations yielded a final measure for which higher numbers indicated self-evaluations that were more consistent with the female gender stereotype.

*Manipulation check.* To assess whether the manipulation of partner views was equally successful across conditions, participants were asked to characterize their interaction partner's attitudes about women using two questions: "How much do you believe your partner values gender traditional people?" and "How much do you believe your partner values gender nontraditional people?" Participants provided responses to both of these items on a 7-point Likert-type scale with the anchors 1 = not at all and 7 = very much.

#### Results

## Manipulation Check

To determine whether there were any systematic differences between conditions in how gender-traditional participants thought their interaction partner was, we submitted their responses to each manipulation check to a one-way (motivation: social distancing, reactance, need for uniqueness, neutral) ANOVA. As expected, all participants, regardless of condition, believed their partner valued gender-traditional people (M=5.57, SD=0.97), F(3, 24)=0.14,  $p=.94, \eta^2=.02$ . In addition, participants in all conditions believed their partner did not value gender-nontraditional people (M=3.29, SD=1.08),  $F(3, 24)=0.545, p=.66, \eta^2=.06$ . A paired-samples t test confirmed that mean responses on these two items were significantly different from each other, t(27)=7.32, p<.001.

## Self-Evaluation

If a given motivation is the source of the antituning effects, participants in the correspondent condition should evidence the least stereotype-consistent self-evaluations. To examine whether one of the three primed motivations caused antituning, we conducted a series of planned orthogonal contrasts (see Abelson,

<sup>&</sup>lt;sup>2</sup> Fifty-seven participants pilot tested these scenarios prior to their use. Participants were given the same instructions and amount of time to respond to scenarios as in Experiment 4. We did not pretest the neutral scenarios. Two independent coders, unaware of prime type, coded participants' responses to the scenarios. Participants' written responses were coded in two ways. First, an overall judgment concerning whether participant responses reflected the primed goal was made. This was done on the following scale: 1 = social distancing only, 2 = reactance only, 3 = uniqueness only, 4 = combination of social distance and reactance, <math>5 =combination of social distance and uniqueness, 6 = combination of reactance and uniqueness, and 7 = combination of all three. Second, coders rated each response using the questions "To what extent does this response reflect a social distance motive?" "To what extent does this response reflect a reactance motive?" and "To what extent does this response reflect a need for uniqueness?" on a scale ranging from 1 = not at all to 7 = very much. Results from both coding strategies revealed that each scenario adequately primed the motivation it was intended to and did not prime an alternative motivation. The interested reader may contact Stacey Sinclair for more detailed information.

1995; Rosenthal & Rosnow, 1991). The order of conditions was as follows: social distancing, reactance, need for uniqueness, and neutral. The weights for the first contrast (a) compared social distancing to the other three conditions. The second contrast (b) compared reactance to the other three conditions. The third contrast (c) compared need for uniqueness to the other three conditions. Finally, the fourth contrast (d) compared the neutral condition to the other three conditions. See Table 1 for the contrast weights.

Consistent with the logic of shared reality theory, participants primed with the goal to achieve social distance reported the least stereotype-consistent self-evaluations (M = -0.50, SD = 0.86) of all four groups, reactance (M = 0.24, SD = 0.56), uniqueness (M = 0.26, SD = 0.69), and neutral (M = -0.005, SD = 0.70); contrast (a), t(24) = 2.08, p < .05 (see Figure 5). None of the other three contrasts (b–d) were significant (ps > .23).

# Discussion

These results support the hypothesis that the antituning effects found in Experiments 1–3, and other examples of affiliative social tuning (e.g., Higgins, 1992), were due to the motivation to create social distance between participants and other social actors rather than other plausible alternative motives. In addition, these results suggest that the goal to antitune is capable of operating outside of participants' awareness. During debriefing, no participants mentioned a connection between the scenario primes and their self-evaluations or the impending interaction. This suggests that participants were unaware of acting in terms of the primed goal to antitune. Therefore, restrictive conceptualizations of self-presentation seem to be unable to account for these results.

## General Discussion

Four experiments showed that individuals' self-evaluations fluctuate in response to the views others ostensibly have of their group in a manner consistent with shared reality theory. Experiments 1 to 3, using two social groups (i.e., women and African Americans), four operationalizations of affiliative motivation, and two operationalizations of partner's views, showed that individuals' self-evaluations became more consistent with the ostensible views of another social actor when affiliative motivation toward that person was high versus low. In Experiments 1 and 2, women interacted, or thought they were going to interact, with someone who had traditional or nontraditional views of women. Consistent with the affiliative social tuning hypothesis, their self-descriptions (Experiment 1 and 2) and behavior (Experiment 2) corresponded to the

Table 1
Contrast Weights Used in Experiment 4

Contrast	Prime type			
	Social distance	Reactance	Uniqueness	Neutral
a	-3	1	1	1
b	1	-3	1	1
С	1	1	-3	1
d	1	1	1	-3

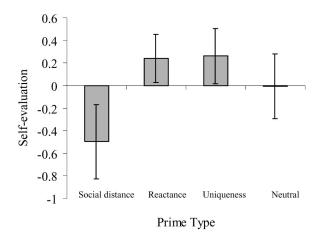


Figure 5. Female participants' stereotypicality of self-evaluation as a function of prime type.

ostensible views of their social interaction partner when they had high, versus low, affiliative motivation toward this person. Men's self-descriptions did not demonstrate comparable shifts, presumably because they had no information regarding the social interaction partners' ostensible views of men and thus nothing toward which to social tune (Experiment 1). African Americans thought they were going to interact with someone that was more or less likely to hold stereotypic views of African Americans in Experiment 3. Despite the negativity of relevant stereotypes, their self-descriptions also corresponded to the ostensible views of another social actor when affiliative motivation was high versus low.

In Experiments 1-3, we also found consistent evidence of antituning; that is, when affiliative motivation was low, participants' self-evaluations shifted away from the perceived views of another social actor. Although statements of shared reality theory do not explicitly make predictions regarding what will occur when affiliative motivation is low, the logic of this perspective suggests that such antituning may be a means of achieving social distance (see also Higgins, 1992). In other words, mirroring the tendency to social tune toward others to solidify social bonds via increased shared reality, people tune away from the perceived views of others to keep social interactions distant by avoiding shared reality. Experiment 4 examined whether antituning was a product of a social distance motive or due to other motives (e.g., reactance). Consistent with shared reality theory, this experiment demonstrated that individuals motivated to achieve social distance, as opposed to those subject to other motivations, shifted their evaluations away from the perceived views of another social actor (i.e.,

This set of findings represents the first explicit test of affiliative social tuning of the self. Research and theory on relational schemas and transference have shown that individuals' self-evaluations (Baldwin et al., 1990; Hinkley & Andersen, 1996) and behavior (Berk & Andersen, 2002) may shift in response to increased salience of important others (see Andersen & Chen, 2002; Baldwin, 1992, for reviews). Although consistent with shared reality theory, authors of this work contend that self-evaluative shift is predicated on differential salience of preexisting self-understandings developed within the context of long-standing re-

lationships. Our research, on the other hand, has expressly manipulated the ostensible views of a new relevant social actor and whether participants possess affiliative motivation toward this person. Thus, these experiments showed that individuals' self-evaluations and behavior shifted in response to the ostensible views of short-term interaction partners as a function of affiliative motivation, a finding that cannot be accounted for by relational schema or transference explanations.

We also believe that the affiliative social tuning hypothesis of shared reality theory provides a more compelling account of these data than does self-presentation. Although shared reality theory can provide a parsimonious explanation for all of the demonstrated findings, restrictive conceptions of self-presentation cannot explain why differences in self-descriptions emerged even when participants thought their responses would not be viewed by the other social actor (Experiment 2) or participants were not consciously aware of being subject to a particular affiliative goal (Experiment 4). Other research from our lab also indicates that people do not anticipate that their self-evaluations will shift to accommodate the stereotypic views of another social actor when affiliative motivation is high (Huntsinger & Sinclair, 2004). This lack of insight suggests that participants are not deliberately and strategically altering their self-descriptions. Finally, we have also found evidence for affiliative social tuning on measures of implicit prejudice, which are not subject to strategic manipulation (Lowery, Hardin, & Sinclair, 2001; Sinclair et al., in press). Although expansive notions of self-presentation do not require that selfevaluative shifts be consciously strategic, they are unable to predict a priori that social tuning would supersede self-enhancement or self-promotion in Experiment 3 or that antituning was a product of social distance motives (Experiment 4). Nevertheless, as others have noted (e.g., Tetlock & Manstead, 1985), it is often difficult, if not impossible, to definitively establish whether a phenomena is purely the result of impression management or intrapsychic motives (i.e., affiliative motivation).

In addition to providing support for shared reality theory, these findings fit into the self and social stigma literatures in interesting ways. Unlike perspectives that imply that self-stereotyping is virtually unavoidable (Allport, 1954; Cartwright, 1950; Mead, 1934), we contend that self-stereotyping is situationally contingent on the perceived views of salient social interaction partners and the affiliative motivation directed toward them. Consideration of the role of affiliative motivation in the translation of the view of others into self-views may also serve to elucidate extant findings in the stigma literature. For example, it may serve to explain when exposure to social interactions characterized by stereotyping and prejudice decreases stigmatized group members' self-esteem (Branscombe, Schmitt, & Harvey, 1999; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002) versus when this exposure protects it (Crocker & Major, 1989; Major, Quinton, & McCoy, 2002). This is a worthy avenue for future research.

Although some argue that the self is a stable and enduring construct that is difficult to change (Swann, 1990; see Baumeister, 1998, for a review), the present research fits nicely with work suggesting that the self is malleable (Kunda, Fong, Sanitioso, & Reber, 1993; Markus & Kunda, 1986; see Andersen & Chen, 2002; Banaji & Prentice, 1994, for reviews). On its surface, stability and malleability of the self-seem incompatible, but they can both be explained within the shared reality framework (Hardin & Conley,

2001; Hardin & Higgins, 1996). Just as affiliative social tuning can lead to distinctly different selves within social interactions in which the content of the shared reality differs, it can also lead to stability of the self if one's social world is consistent and stable. If one inhabits a social world that entails interactions and the formation of social bonds with individuals who hold very different views, then the self should be quite plastic. However, if one's social world entails frequent interaction with the same people or if the content of the shared understandings about the self do not differ across social interactions, the self will be largely stable. Future research should examine individuals' self-evaluations as a function of their natural social milieu.

Although this research focuses on affiliative social tuning of the self, we think that affiliative social tuning can be evidenced with respect to a number of different outcomes. As mention earlier, there is evidence of affiliative social tuning of attitudes about others (Higgins & McCann, 1984; McCann & Hancock, 1983; Sinclair et al., in press). One could also interpret the tendency to mimic the nonverbal behaviors of one's interaction partner as an expression of affiliative social tuning (Chartrand & Bargh, 1999; Lakin & Chartrand, 2003; van Baaren, Holland, Kawakami, & van Knippenberg, 2004; van Baaren, Holland, Steenaert, & van Knippenberg, 2003). When affiliative goals are activated or individuals desire to have smooth and pleasant interactions with others, people are more apt to nonconsciously display the same nonverbal behaviors as their interaction partners (Cheng & Chartrand, 2003; Lakin & Chartrand, 2003), thus implying shared internal states, traits, or motives (DePaulo, 1992; DePaulo & Friedman, 1998).

Although we have yet to examine the intrapsychic processes involved in affiliative social tuning, we believe connectionist models of mental representation (see Smith, 1996, 1998, for reviews) or research on autobiographical memories (Baumeister & Newman, 1994; Rubin, 1990; Sanitioso, Kunda, & Fong, 1990; see also Markus & Wurf, 1987) may serve to elucidate the cognitive underpinnings of this phenomenon. These perspectives suggest that mental representation or memory is highly flexible and dependent on immediate experiences, motives, and so forth (i.e., they are temporary constructions). Thus, they both suggest that affiliative motivation and perceptions of others' views can work in concert to shape the construction of the self that is elicited in a given interpersonal context, consistent with the affiliative social tuning hypothesis.

On the basis of shared reality theory, we also suspect that affiliative social tuning is predicated on the desire and ability to take the perspective of another person. In other words, we expect that affiliative motivation leads individuals to take the perspective of social interaction partners and this, in turn, leads to social tuning of self-evaluations. It would be interesting to test the mediational role of perspective taking by examining whether interfering with it (e.g., via cognitive load) eliminates affiliative social tuning. It would also be interesting to determine whether the difficulty with accurate perspective taking demonstrated in previous research (see Nickerson, 1999, for a review) extends to situations in which affiliative motivation is high, and if so, how this difficulty influences the process and content of social tuning. In sum, the cognitive and psychological mechanisms underlying social tuning warrant further examination.

Finally, this research also identifies interesting challenges for stereotype targets and the people who interact with them. It sug-

gests that individuals who interact with stereotype targets need not hold, or overtly express, stereotypes for self-evaluative shift among stereotype targets to occur. Stereotypes may influence the self-evaluations of stereotyped persons if they merely believe that the other social actor holds stereotype-consistent views of their group and high affiliative motivation toward that social actor is warranted. This poses a challenge for people who interact with stereotype targets. To avoid influencing their social interaction partners in potentially detrimental ways, it is not sufficient for them to simply avoid endorsing stereotypes. They must also actively seek to convey that they do not harbor stereotypic views. This may be especially difficult given that stereotyped individuals can often detect the implicit stereotypes and prejudices that individuals are unaware of holding (e.g., Dovidio, Kawakami, & Gaertner, 2002). Our findings also pose a challenge for stereotype targets. Although others may portray a dual image of themselves during interaction with stereotype targets, stereotype targets must seek to accurately perceive the stereotype-relevant views of others and strive to keep emotionally distant from individuals they think hold stereotypes—even if the situation calls out for fostering a social bond.

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# Appendix

# Example Scenarios (Experiment 4)

# Scenario 1: Social Distance

Imagine that you have just returned from a weekend camping trip with a group of friends. Although you certainly had a good time, the constant presence of other people around you has made you feel a bit overwhelmed by the social contact. Once you return home, you feel as though you need some time to yourself. All you really want to do is sit in front of the TV, eat some dinner and relax for a night without anyone around. However, within hours of returning home, a friend calls and asks if you would like to go see a movie that evening. You really don't want to go and would rather be by yourself given that you spent a great deal of time with other people over the past few days. What might you say to your friend? How would you convey to your friend that you need some time on your own to unwind and stop feeling socially overburdened from the weekend's events?

#### Scenario 2: Reactance

Imagine that you are at a family gathering where you are in the middle of a conversation with a close family member (a parent, older sibling) and another family member that you haven't seen in a number of years. During the course of this conversation, the close family member keeps answering the other person's questions about what types of things you are doing, the things you like, and your plans for the future. All of this occurs without this person even consulting you about what your opinions are on these topics. It's as if you are not even there. During the course of this conversation, you come to feel as though you have no freedom to say what you really think or express who you really are. How might you try to clear up the situation and retain some sense of control over how you would like yourself to be known? What types of thoughts and feelings might come to mind as you are in the midst of this situation? What kinds of things would you say to

correct the close family member's portrayal of you? How would you reassert your sense of being able to think or do what you would like?

## Scenario 3: Uniqueness

Imagine that you are having a conversation at a party with a group of people you don't know. During the course of the conversation, you notice that the person to your right seems to have exactly the same opinions as you about most everything. When the group asks for your opinion, you have generally agreed with what this person has said. After a few minutes, you fear that you appear to the others to be a carbon copy of the person to your right. After realizing this, you make a decision to reassert your uniqueness, to show everyone that you are different from this person. How would you go about conveying that you are different from the person to your right? What thoughts and feelings would come to mind as you are confronted with this situation? What things may come to mind as you formulate a means of showing the other people in the group that you are unique and different from this other person?

## Scenario 4: Neutral

Please imagine you are at the National Zoo (located in Washington, DC). It is a nice day, the sun is shining and it is not too warm. Please describe the types of exhibits (i.e., animals) that you would visit and your reactions to each. In addition, please describe why you want to visit each exhibit and which ones you would visit first.

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