

Perspective-Taking: Decreasing Stereotype Expression, Stereotype Accessibility, and In-Group Favoritism

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Using 3 experiments, the authors explored the role of perspective-taking in debiasing social thought. In the 1st 2 experiments, perspective-taking was contrasted with stereotype suppression as a possible strategy for achieving stereotype control. In Experiment 1, perspective-taking decreased stereotypic biases on both a conscious and a nonconscious task. In Experiment 2, perspective-taking led to both decreased stereotyping and increased overlap between representations of the self and representations of the elderly, suggesting activation and application of the self-concept in judgments of the elderly. In Experiment 3, perspective-taking reduced evidence of in-group bias in the minimal group paradigm by increasing evaluations of the out-group. The role of self–other overlap in producing prosocial outcomes and the separation of the conscious, explicit effects from the nonconscious, implicit effects of perspective-taking are discussed.

Navigating the contemporary social world has become something of an obstacle course. Any interpersonal behavior, verbal or nonverbal, suggesting discrimination or favoritism based on group membership is subject to condemnation with the potential for public censorship and legal sanction, as well as internal compunction. How do individuals navigate their social world without displaying attitudes that could be the fodder for accusations? What strategies are effective in debiasing social thought, of calibrating one's actions with contemporary social mores? Take the situation of an individual interacting with an ethnic minority. An intuitively appealing strategy to prevent the group's stereotype from affecting the interaction is to actively try to prevent any references to that stereotype from entering into consciousness. Unfortunately, a recent line of research has shown that the intentional suppression of stereotypic thoughts ironically can produce the very thoughts one is suppressing (Macrae, Bodenhausen, Milne, & Jetten, 1994; Wegner, 1994). An alternative strategy for social maneuvering

involves the active consideration of alternative viewpoints, framings, hypotheses, and perspectives. Using three experiments, we explored the processes of perspective-taking in reducing the expression and accessibility of social stereotypes, in increasing the positivity of group-based judgments, and in eliminating in-group favoritism. The results suggest that perspective-taking can reduce the accessibility and application of stereotypic knowledge and that perspective-taking reduces stereotypic responding because of increased overlap between representations of the self and representations of the out-group.

Perspective-Taking

The ability to entertain the perspective of another has long been recognized as a critical ingredient in proper social functioning. Davis (1983) found that perspective-taking, as measured by an individual-difference measure, was positively correlated with both social competence and self-esteem. Piaget (1932) marked the ability to shift perspectives as a major developmental breakthrough in cognitive functioning, and Kohlberg (1976) recognized its importance in his classification of moral reasoning. The presence of perspective-taking can inspire great gestures of altruism (Batson, 1991, 1998), and its absence can incite the devastations of social aggression (Richardson, Hammock, Smith, Gardner, & Signo, 1994). Early studies of perspective-taking focused on the emotional reactions of participants induced to take the perspective of an individual in need; these experiments were concerned with demonstrating the existence of empathy. One could conclude from the early experiments that perspective-takers' emotional experience comes to resemble that of the targets (see Batson, 1991). The active consideration of imagining how a target is affected by his or her situation produces an empathic arousal that leads the perspective-taker to offer greater assistance to the target.

Perspective-taking also affects attributional thinking and evaluations of others. Jones and Nisbett (1971) noted that actors and observers differ in the attributions they make. Whereas actors are likely to recognize situational forces pulling and pushing behavior

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in systematic ways, observers rely on others' dispositions as the explanation for behavior. Although recognizing actors possess privileged information about how they have acted in similar situations in the past, Jones and Nisbett also suggested actors and observers process information differently because of divergent perspectives. For the observer, the behavior of the individual is salient; for the actor, attention is focused outward toward the environment. Storms (1973) reversed the normal perspective of actors through the use of a videotape; actors who observed their own part of the conversation produced causal attributions that were relatively more dispositional than situational. Regan and Totten (1975) extended the research by Storms to the psychological shifting of perspectives—they turned dispositional explanations into situational ones by asking participants to actively take the perspective of the person they were observing. Perspective-takers made the same attributions for the target that they would have made if they themselves had found themselves in that situation.

Perspective-Taking and the Egocentric Self

Perspective-taking has been shown to lead to a merging of the self and the other, in which the perspective-taker's thoughts toward the target become more "selflike" (Davis, Conklin, Smith, & Luce, 1996). After perspective-taking, there is a greater self-target overlap, such that a greater percentage of self-descriptive traits are ascribed to the target. The representation of the target constructed by the perspective-taker comes to resemble the perspective-taker's own self-representation.

Davis et al. (1996) found that ascription of self-descriptive traits to the target was not due to increased liking for the target but rather to the cognitive accessibility of the self-concept. Although perspective-takers felt the target was more similar to themselves than control participants and they liked the target more, these effects did not mediate the amount of self-target overlap. This suggests that there are two separate processes involved in perspective-taking: a conscious, explicit effect and a nonconscious, implicit effect. When perspective-takers are asked direct questions about the target person, then they will presumably feel that the perspective-taking manipulation is relevant to that judgment and consciously give responses that are consistent with that manipulation. However, during perspective-taking, the self-concept gets activated and applied toward the target. The activation and application of the self-concept, like other knowledge structures (see Bargh, 1997, for a review), occurs implicitly (at a nonconscious level). Further evidence for the nonconscious effect of perspective-taking manipulations on self-concept activation comes from the fact that self-target overlap is unaffected by dividing the attention of participants (Davis et al., 1996). Cognitive load interfered with the effortful act of perspective-taking (the general ascription of traits) but left the more automatic process (the ascription of self-relevant traits) intact. Davis et al. concluded that the processes of perspective-taking can be divided into more controlled and more automatic ones and that "the effect of perspective-taking instructions on the ascription of self traits results from differences in cognitive accessibility that are created by priming the self-concept" (p. 723).

In explaining the effects of perspective-taking, researchers have attempted to tease apart the differences between imagining how another person feels and imagining how you would feel if you were in the target's position. Stotland (1969) and Batson, Early,

and Salvarani (1997) found that although both types of perspective-taking are associated with increased empathic feelings, only the latter kind is associated with increased feelings of and physiological manifestations of distress. Batson, Early, et al. suggest that increases in feelings of distress are a sign of egoistic motivation, a motivation they claim is distinct from altruism (Cialdini et al., 1987).

Imagining the self in the target's perspective is more likely to spontaneously occur than imagining how another person is uniquely affected by the situation confronting that person. The probability of perspective-taking increases when one has endured the same slings and arrows as the target person. Clore and Jeffery (1972) found that traveling around campus in a wheelchair increased sensitivity to the plight of people with disabilities. Prior experience with a difficult situation or the realization that one will confront a similar situation in the future increases empathic responding (Batson et al., 1996). In addition, relationship closeness predicts perspective-taking and altruism; as relationship closeness increases, so too does empathic responding and willingness to help an individual in need (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997).

Increased self-target overlap occurs both when participants imagine themselves in the target's place and when they imagine what it would be like to be the target (Davis et al., 1996). Thus, although the emotional response does appear to be affected by the type of perspective-taking manipulation (Batson, Early, et al., 1997; Stotland, 1969), the cognitive consequences of perspective-taking appear to be independent of the type of experimental manipulation.

Perspective-Taking and Stereotyping

Given that perspective-taking produces many positive interpersonal benefits—even if egoistically motivated—these benefits may extend to intergroup judgments and interaction. Focusing on situational constraints and influences rather than relying on dispositionalism to explain the behavior of a stereotyped target might reduce the infiltration of stereotypes into judgments ranging from courtroom verdicts (Bodenhausen & Wyer, 1985) to employee promotion decisions (Fiske, Bersoff, Borgida, Deaux, & Heliman, 1991) to dispositional inference (Duncan, 1976).

The increased self-other overlap after perspective-taking has implications for intergroup relations because recent research has found that it is the in-group's association with the self that leads to ethnocentric responses in favor of the in-group (Cadinu & Rothbart, 1996; Smith & Henry, 1996). As the merging of self and in-group increases, so too does the favoritism toward the in-group (Turner, 1987). Just as the positive evaluation of the self extends to the in-group, the increased self-other overlap after perspective-taking could lead to more positive evaluations of the target, which, in turn, might then generalize to the group as a whole.

The increased accessibility of the self-concept after perspective-taking (Davis et al., 1996) might result in the use of the self-concept over the stereotypic construct when categorizing and evaluating a member of a stereotyped group. This should occur because categories in the mind compete with each other to win the metaphorical race to capture stimuli (Allport, 1954; Bruner, 1957). When two constructs are equally applicable for categorizing an individual, the more recently activated construct will be used. For example, seeing an Asian woman putting on makeup increases the

accessibility of the female stereotype while inhibiting the Asian stereotype (Macrae, Bodenhausen, & Milne, 1995). Thus, the increased accessibility of the self-concept might diminish the accessibility and application of the stereotype by becoming the dominant construct used to categorize ambiguous stimuli.

There is work to suggest that perceived connections to targets can affect the use of stereotypes (Brewer, 1988; Neuberg & Fiske, 1987). The more personalized the contact is to a target, the less likely it is that stereotypes will be used in the categorization process (Brewer, 1996). Research on outcome dependency, a situation in which mutual collaboration between two or more partners is essential for completing a task, has found a reduction in the reliance on stereotypic information when forming impressions of one's partners. According to Neuberg and Fiske (1987), outcome dependency promotes attribute-based processing of information with less reliance on stereotyped judgments because the cost of nonveridical perception increases when more precise prediction is sought.

It is possible that the positive benefits from outcome-dependency accrue by means of the perspective-taking process.¹ When placed in an outcome-dependent situation and desiring accurate assessment of their task partner, participants might attempt to take their partner's perspective in order to fully appreciate the characteristics that their partner possesses. There are differences, however, between perspective-taking and outcome dependency. The close analysis of individuating information triggered by outcome dependency is more resource dependent than is the ascription of self-traits to a target individual during perspective-taking (Davis et al., 1996). Because perspective-taking does not require the construction of an interdependent setting or creation of a superordinate goal (Neuberg & Fiske, 1987; Sherif, 1966) to exert its influence, it may function in more diverse domains than task interdependence. Even if the cognitive processes of outcome dependency and perspective-taking share significant overlap, it is important to demonstrate that perspective-taking can produce the same benefits as outcome dependency.

Thought Suppression

In the introduction, we mentioned that suppression is an intuitively appealing strategy for trying to prevent the accessibility and application of social stereotypes. Debiasing social thought generally involves attempts by the individual to exert control over the content and nature of cognitive processes. Mental control allows the individual to direct cognition in the service of currently held goals. Attempts at mental control, however, do not always meet with success (Macrae et al., 1994; Wegner, 1994). Because a representation of the to-be-suppressed thoughts must be held up as an object somewhere in awareness in order to deny such thoughts entrance into consciousness, the decision to engage in suppression ironically can increase the accessibility of the unwanted thoughts (Macrae et al., 1994). The continual search for instances of the suppressed thought also serves as a form of repetitive priming (Higgins, 1989; Macrae et al., 1994).

This heightened accessibility of a stereotype can manifest itself during suppression when the operating system is disabled by insufficient cognitive resources. Wegner, Erber, and Bowman (1993) demonstrated that when resource depletion is paired with intentions to suppress stereotypic thoughts, those very thoughts become more accessible. The ironic effects not only emerge when

cognitive resources are scarce because of performing multiple cognitive tasks, but the act of suppression itself is an effortful, resource-demanding mental process that can create the conditions facilitating these effects (Macrae, Bodenhausen, Milne, & Wheeler, 1996; Sherman, Stroessner, Loftus, & Deguzman, 1997).

Ironic effects also emerge once the intention to suppress is removed—these effects are known as *rebound effects* (Macrae et al., 1994). Like any opponent-process system that involves simultaneous excitation and inhibition, removing the restraining force leads to the temporary hyperaccessibility of the inhibited process or thought. Stereotype suppressors, despite showing reduction in stereotypic thoughts on a first task, subsequently produced more stereotypic thoughts, greater avoidance of stereotypic targets (measured through physical distancing), and faster response latencies in recognizing stereotypic words than did participants who had focused on the stereotype rather than suppressed it.

Although suppression may intuitively seem to be a viable process for preventing stereotypic thoughts from emerging, the above review indicates three potential pitfalls in its effectiveness. First, an abundance of cognitive resources is required, without which, the monitoring system's scan across the mental landscape proceeds without restraint. Second, suppression can serve as a form of cognitive load, disabling processes of individuation (Neuberg & Fiske, 1987). Third, suppressed thoughts often become more, rather than less, salient after the termination of the suppression goal.

Experiment 1

Perspective-taking and suppression as goals for affecting the accessibility of constructs and interpersonal interactions differ in a number of important ways. On the one hand, perspective-taking leads to a more personalized approach to the target, which can be effective in reducing the accessibility of stereotypes (Brewer, 1996). On the other hand, suppression maintains focus on group-level characteristics and the target as an instantiation of the group. Perspective-taking covaries with perceived similarity with targets (Cialdini et al., 1997; Davis et al., 1996), whereas suppression leads to both psychological (Galinsky & Moskowitz, 1999) and physical distancing behaviors (Macrae et al., 1994). Perspective-taking leads to the accessibility of the self-concept (Davis et al., 1996), whereas suppression leads to the hyperaccessibility of the stereotype (Macrae et al., 1994). The first experiment was designed to investigate the processes associated with thought suppression and perspective-taking in the context of stereotypes. To explore the processes by which perspective-taking could affect stereotyping and intergroup relations, the first two experiments focused on both the explicit and implicit effects of perspective-taking.

To test whether perspective-taking could have positive intergroup, and not just interpersonal, consequences, we borrowed a paradigm that Macrae et al. (1994) used to explore the consequences of stereotype suppression. In the Macrae et al. experiment,

¹ Tetlock, Skitka, and Boettger (1989) suggested that accountability, the social pressure to justify one's views or decisions to others, leads to perspective-taking; accountability-induced perspective taking shifts an individual's information-processing strategy from a heuristic and peripheral one to a more central and systematic one (Chaiken, 1980; Petty & Cacioppo, 1986).

participants were shown a photograph of a person who fit the stereotype of a "skinhead" and asked to write a short narrative essay about a typical day in the life of the individual. Half of the participants were told to actively avoid using any stereotypical preconceptions in their narrative essay, whereas the other half were given no instructions. In a lexical decision task used to measure the accessibility of the stereotype, the stereotype was hyperaccessible for suppression participants relative to the control condition.

We posited that perspective-taking would produce the positive consequences of stereotype suppression (i.e., limiting the expression of stereotypical content) without the ironic side effect of hyperaccessibility. In our first experiment, participants were exposed to a photograph of an elderly man and asked to write an essay describing a day in his life. One third of the participants were given no explicit instructions, one third were asked to suppress any stereotypic preconceptions that might bias their narrative essays, and one third were told to take the perspective of the individual in the photograph when writing their narrative essay. After completing a lexical decision task, participants wrote a second narrative essay about a different elderly man. Finally, participants were shown a photograph of a young African American man and asked to write a third narrative essay. The third photograph was included to see whether the experimental instructions would generalize to a different social group.

We predicted that control participants would write narrative essays that contained more stereotypic content than both perspective-taking and suppression participants, who would not differ from each other. That is, on a conscious, explicit task, perspective-takers would inhibit the expression of stereotypic content. Further, only suppression goals should lead to stereotype hyperaccessibility on the lexical decision task. Perspective-taking should prevent the hyperaccessibility of stereotypes because the personalized approach toward the target reduces the focus on group-level characteristics that aid in the activation of stereotypes (Brewer, 1988, 1996) while simultaneously increasing trait overlap between representations of the self and of the group represented in the photograph. This increased accessibility of the self should direct the manner in which the target is categorized, reducing the impact of one's stereotype. The lexical decision task was used to demonstrate the effect of perspective-taking on tasks that do not allow for the operation of conscious goals.

Macrae et al. (1994) found that rebound effects emerged on a second narrative essay, in which no instructions on how to write the essay were provided. We were interested in whether perspective-takers as well as thought suppressors would continue to write less stereotypically based essays. We predicted that the effect of the perspective-taking instructions given before the first narrative essay would carry through to the later, related task. The combination of the explicit instructions and the similarities in the task should alert perspective-takers to continue to take the perspective when writing the narrative essays.

Because perspective-takers psychologically approach targets and suppressors distance themselves from targets (see Galinsky & Moskowitz, 1999), we expected that perspective-taking would affect not only the content expressed toward targets but also the evaluation expressed toward targets. Davis et al. (1996) found that perspective-taking led participants to like the target more. Perspective-takers were predicted to limit the expression of stereotypic content as suppressors did, while also expressing more favorable content about the target compared with suppressors.

Method

Participants and design. Participants were 37 undergraduates who were tested individually and received credit for participation as part of a course requirement. The study had a 3 (experimental condition: control vs. stereotype suppression vs. perspective-taking) \times 2 (word type: stereotype consistent vs. stereotype irrelevant) mixed design with repeated measures on the second factor.

Procedure. Participants arrived in the laboratory and were told that they were going to participate in a number of unrelated tasks that all involved language processing. Participants were then given instructions very similar to those given by Macrae, et al. (1994). The experimenter explained that he was interested in their ability to construct life-event details from visual information alone. All participants were then shown a black and white photograph (presented on a computer screen) of an older man sitting on a chair near a newspaper stand. Participants were then asked to write a short narrative essay about a typical day in the life of the individual. Before constructing their narrative essay, one third of the participants were randomly assigned to the control condition and were given no additional instructions. One third were randomly assigned to the suppression condition and were instructed that "previous research has demonstrated that thoughts and impressions are consistently influenced by stereotypic preconceptions, and therefore you should actively try to avoid thinking about the photographed target in such a manner." The final third of the participants were instructed to adopt the perspective of the individual in the photograph and "imagine a day in the life of this individual as if you were that person, looking at the world through his eyes and walking through the world in his shoes." Participants were asked to construct their narrative essay on a sheet of paper with 27 lines and told to take approximately 5 min to complete the task. With regard to the perspective-taking manipulation, Galinsky (1999a) presented evidence that this manipulation increased the type of perspective-taking that involves imagining how the self would feel and act. This perspective-taking manipulation evoked an increase in distress emotions, which have been shown to be associated with manipulations that instructed perspective-takers to imagine how the self would be affected by the target's situation (Batson, Early et al., 1997; Stotland, 1969).

To separate the lexical decision task from the narrative essay task, participants were given a series of math tasks, including circling numbers divisible by 7 and counting backward by 3s and 6s from a specified number. The experimenter explained that the math task was included because one of the professors in the department was interested in whether quantitative thinking and linguistic thinking composed one mental system or two separate mental systems. They were told that this relationship could be explored experimentally by having half of the participants, like themselves, do a math task before doing a language task, and the other half of the participants do only a language task; the researchers could then look at whether having done the math task facilitated or inhibited performance on the language task. In reality, all participants completed the math task, which took approximately 15 min to complete.²

When finished with the math task, participants were placed in front of a computer screen and told that the language task was called a lexical decision task. They were informed that several strings of letters were going

² The time between the narrative essay and the lexical decision time was longer in our experiment than in the experiment by Macrae et al. (1994). We increased this time for two reasons. First, pilot testing determined that this prevented any participants from becoming suspicious. Second, we wanted to find further support for Macrae et al.'s (1994) contention that rebound effects are the result of repetitive priming consistent with the synapse model of construct accessibility. Because the action potential of a repeatedly activated construct dissipates and decays more slowly over time than a less frequently activated construct, then stereotype suppressors should display evidence of stereotype activation even after a delay between the narrative essay task and the lexical decision task.

to flash briefly on the computer screen and that it was their job to determine, as quickly as possible, whether those letters composed a word in the English language. Participants were told to maximize both speed and accuracy (Fazio, 1990). Participants were given a short practice session consisting of nine trials to acquaint them with the task. After the practice session, participants were given the major experimental block, consisting of 10 words (5 of which were stereotype consistent and 5 of which were stereotype irrelevant) in a fixed, random order. Participants responded using a standard keyboard; one of the keys had been labeled *word* and the other key had been labeled *non-word*. For each trial, the string of letters appeared on the screen for 180 ms. After participants responded by hitting one of the two keys, a plus sign accompanied by a beep appeared on the screen to focus the participants' attention and to let them know the next trial was about to appear. After the last trial, participants were informed the task had concluded.

All of the words were evaluatively negative in implication, consistent with the procedures of Macrae et al. (1994). They were selected on the basis of previous pretesting in which 20 participants, other than the ones who participated in the experiment, rated 47 traits for how typical they were of elderly men. We pretested the typicality of the words only in reference to elderly men because the individual in the photograph was a man and because previous work by Brewer, Dull, and Lui (1981) suggested that the elderly stereotype could be separated into meaningful subcategories. The stereotype-consistent and stereotype-irrelevant words were matched on both valence and length. The stereotype-consistent words chosen represent the 5 traits rated as the most stereotypical of elderly men: *lonely*, *dependent*, *traditional*, *stubborn*, and *forgetful*. Only five words were chosen as stereotype-consistent words because only five words that were not related to the health or physical state of the elderly or not synonyms of already selected words were rated above the midpoint of the scale.³ The stereotype-irrelevant words chosen were the five words rated the least stereotypical (adjusting to ensure equal valence and word length): *jumpy*, *scheming*, *cowardly*, *envious*, and *deceptive*. There were an equal number of nonwords to prevent response biases.

After participants completed the lexical decision task, they were shown a photograph of a second elderly man and were asked to write a second narrative essay; following Macrae et al. (1994) they were told to write the narrative essay with no mention of the previous experimental instructions. Finally, participants were presented with a third photograph of an African American man who appeared to be in his late teens to early 20s and asked to write one final narrative essay. Participants were thoroughly debriefed and thanked for their participation.

Results

Stereotypicality and valence of first narrative essay. One rater blind to both experimental conditions and predictions and one rater blind only to experimental condition estimated both the overall stereotypicality of the contents of each passage and its overall valence. The raters used a 9-point scale for both judgments, with one scale anchored at 1 (*not at all stereotypical*) and 9 (*very stereotypical*) and the other anchored at 1 (*very negative*) and 9 (*very positive*). Macrae et al. (1994) measured only the overall stereotypicality of the essays. The rating of overall stereotypicality has been the standard rating method used in most articles on stereotype suppression that used this paradigm (Macrae et al., 1994; Wyer, Sherman, and Stroessner, 2000). The valence rating was included to explore whether stereotype suppression and perspective-taking instructions produce not only lower stereotypical contents of the essays, but also more positive evaluations of the target (Batson, 1991; Davis et al., 1996). Valence is important in understanding the consequences and dynamics of stereotype suppression with regard to the elderly because previous research has

found that college-age students automatically associate negative traits with the elderly (Perdue & Gurtman, 1990).

For the ratings of stereotypicality, interrater reliability was high, $r(37) = .84$, and therefore the ratings were averaged. A one-way analysis of variance (ANOVA) conducted on the averaged ratings of stereotypicality of the essays revealed a significant effect of condition, $F(2, 34) = 5.9, p < .01$. A planned contrast comparing the perspective-takers and the stereotype suppressors against participants from the control condition was significant, $F(1, 34) = 10.2, p < .003$. Both stereotype suppressors ($M = 5.4$) and perspective-takers ($M = 4.4$) wrote less stereotypical essays of the elderly than did participants in the control condition ($M = 6.8$).

For valence ratings, interrater reliability was high, $r(37) = .79$, and therefore the ratings were averaged. A one-way ANOVA conducted on the rated valence of the essays revealed a marginal effect of condition, $F(2, 34) = 3.1, p < .057$. A planned contrast comparing the perspective-taking condition against the other two conditions was significant, $F(1, 34) = 5.3, p = .03$. Perspective-takers ($M = 6.8$) expressed more positive evaluations of the target individual than did stereotype suppressors ($M = 5.8$) and participants in the control condition ($M = 5.2$). These results suggest that stereotype suppression can reduce the expression of stereotypical content, but this does necessarily translate into the expression of more positive content. Perspective-taking, on the other hand, both reduced the expression of stereotypical content and increased the expression of positive content relative to the control condition. The more favorable evaluations produced by perspective-takers is similar to the increased liking of targets found by Davis et al. (1996).

Lexical decision latencies. The principal dependent measure was the mean time to respond to stereotype-consistent words relative to stereotype-irrelevant words (see Figure 1). Incorrect classifications (i.e., calling a letter string that was a word a non-word) were excluded from the statistical analyses; there was an 8.9% error rate across the trials. Reaction times for each trait were examined for outliers and those reaction times that were more than three standard deviations away from that trait's mean were eliminated; outliers were quite rare and accounted for less than 0.1% of responses. To remove skewness, the raw responses were transformed using a square-root transformation; this transformation most closely approximated a normal distribution (Fazio, 1990). Participants' transformed lexical decision latencies were submitted to a 3 (experimental condition: control vs. stereotype suppression vs. perspective-taking) \times 2 (word type: stereotype consistent vs. stereotype irrelevant) mixed-model ANOVA with repeated measures on the second factor. As expected, only an Experimental Condition \times Word Type interaction emerged from the analysis, $F(2, 34) = 4.7, p = .02$. One-way ANOVAs were conducted on each of the word types across experimental condition to explicate the interaction. The one-way ANOVA conducted on the transformed response latencies to stereotype consistent words was marginal, $F(2, 34) = 3.1, p = .058$; a planned contrast comparing the reaction times of stereotype suppressors to those of perspective-takers and control participants was significant, $F(1, 34) = 5.8, p = .02$. Stereotype suppressors ($M = 451$ ms) were faster to respond to stereotype-consistent words compared with the

³ Pilot testing found that the health-related and physically related words increased suspicion over connections between the narrative essay task and the lexical decision task. Therefore no health-related words were included.

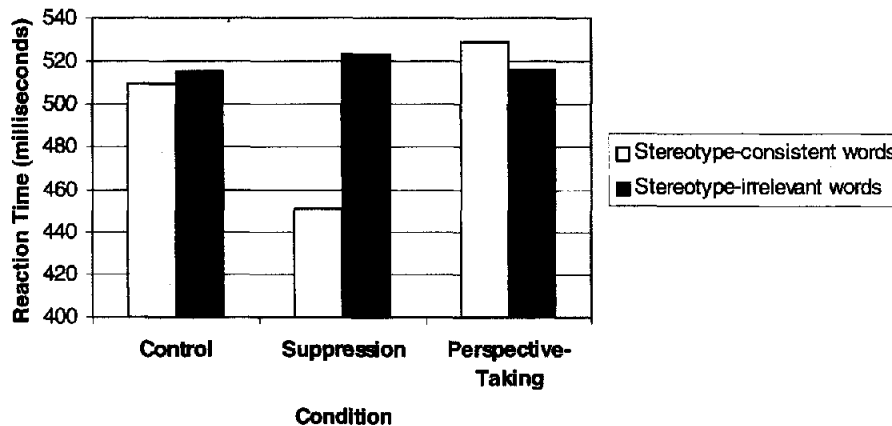


Figure 1. Response time measure to stereotype-consistent and stereotype-irrelevant words by experimental condition.

perspective-takers ($M = 529$ ms) and the control condition ($M = 510$ ms). The one-way ANOVA conducted on the transformed response latencies to stereotype-irrelevant words was not significant, $F(2, 34) < 1$. Stereotype suppressors ($M = 523$ ms) were not faster to respond to stereotype-irrelevant words relative to perspective-takers ($M = 516$ ms) and the control condition ($M = 515$ ms). In addition, within-condition analyses found that only stereotype suppressors demonstrated facilitation for stereotype-consistent words relative to stereotype-irrelevant words, $t(11) = 2.6, p < .03$. Perspective-takers displayed the reverse pattern, responding marginally slower to stereotype-consistent words relative to stereotype-irrelevant words, $t(11) = 1.6, p < .13$. Control participants did not differ in their latencies to stereotype-consistent and stereotype-irrelevant words, $t(12) < 1$. These results lend support to the hypothesis that perspective-taking would not lead to the hyperaccessibility of the stereotype despite reduced expression of stereotypic content in the narrative essay. The fact that suppression led to evidence of hyperaccessibility even when stereotype accessibility was measured after a delay supports Macrae et al.'s (1994) assertion that increased accessibility of suppressed stereotypes are due to repetitive priming during the narrative essay task. The search for failures of suppression increases attention to the suppressed stereotype and thus it gets more frequently activated. This increase in the frequency of activation leads to greater action potential of the construct, which dissipates and decays more slowly over time (Higgins, 1989).

Stereotypicality and valence of second narrative essay. The ratings of stereotypicality ratings, $r(37) = .82$, and the ratings valence, $r(37) = .74$, were each averaged across coders. Although a one-way ANOVA was marginal for the stereotypicality ratings, $F(2, 34) = 2.4, p < .10$, a contrast comparing the perspective-takers and the suppressors against the control condition was significant, $F(1, 34) = 4.4, p < .05$. Both perspective-takers ($M = 4.3$) and suppressors ($M = 4.2$) wrote less-stereotypically based essays than did control participants ($M = 6.1$). Although the one-way ANOVA for the valence ratings was marginal, $F(2, 34) = 3.2, p = .055$, a contrast comparing the perspective-takers against the suppressors and participants in the control condition was significant, $F(1, 34) = 6.2, p < .02$. Perspective-takers expressed more positive evaluations of the target ($M = 5.8$) than did suppressors ($M = 4.9$) and control participants ($M = 4.7$). Al-

though Macrae et al. (1994) found suppression of the skinhead stereotype was followed by increased expressions of stereotypic content, the current experiment revealed suppression of the elderly stereotype led to the continued inhibition of stereotypic expression in a subsequent task. This inhibition of stereotypic expression (an explicit measure of stereotype control), along with evidence of stereotype hyperaccessibility (an implicit measure of stereotype accessibility), supports theories that discuss a distinction between implicit and explicit evidence for stereotyping and prejudice (Devine, 1989).

Stereotypicality and valence of third narrative essay. The third photograph that participants wrote narrative essays about was of an African American man in his late teens to early 20s. Interrater reliabilities for stereotypicality and valence were acceptable, $r(36) = .72$, and $r(36) = .75$, respectively.⁴ Thus, the ratings for each measure were averaged across coders. Unlike the previous two narrative essays, no differences were found between experimental conditions on the averaged ratings of essay stereotypicality, $F(2, 33) = 1.5, p > .20$. All participants wrote essays that did not rely on the stereotype for African Americans ($GM = 2.6$). Participants commented during postexperimental debriefing that they were careful to not stereotype this target. The conscious regulation that control participants described suggests that the socially sensitive nature of the stereotypes triggered spontaneous efforts at suppression. For valence ratings, the one-way ANOVA was marginal, $F(2, 33) = 3.1, p = .058$. A planned contrast comparing the perspective-taking condition against the suppression and control conditions was significant, $F(1, 33) = 5.8, p < .02$. Perspective-takers ($M = 7.0$) continued to express more positive evaluations of the target than did either suppressors ($M = 5.7$) or control participants ($M = 6.1$). Overall, participants expressed more positive evaluations toward the African American target compared with the elderly targets.

⁴ One participant failed to write the final narrative essay, and thus the degrees of freedom for these analyses differ from the analyses of the first two narrative essays.

Discussion

Although stereotype suppressors were able to restrict the expression of stereotypic content in their narrative essays, they responded significantly faster to stereotype-consistent words in a lexical decision task. Perspective-takers, however, restricted their expression of stereotypic content without displaying facilitation for stereotype-consistent words on the lexical decision task. Perspective-takers also expressed more positive attitudes toward the target in their essays than did either stereotype suppressors or control participants across all three essays.

Our results indicated that suppressors did not show evidence of rebound effects on an explicit, obtrusive measure, unlike the results of Macrae et al. (1994). Recent research both by Monteith, Spicer, and Tooman (1998) and by Wyer, Sherman, and Stroessner (2000) failed to find rebound effects on explicit measures of stereotype expression and application. In the Wyer et al. experiment when race was kept constant across two tasks (a narrative essay about an African American as Task 1 and impressions of an African American as Task 2), no rebound effects were found. When race was made ambiguous on the second task, suppressors (vs. control participants) showed greater accessibility effects—rebound effects—for the stereotype. In the Monteith et al. study, no rebound effects occurred for either high- or low-prejudiced participants when the second task was an obtrusive measure of stereotype application and it resembled the first task (both were narrative essays); when the second task was an unobtrusive measure of stereotype accessibility, high-prejudice suppressors did show evidence of hyperaccessibility of the stereotype. Thus, it is not surprising that stereotype suppressors in our Experiment 1 continued to exert control over their responses on the explicit measure, even after having demonstrated hyperaccessibility in the previous, unobtrusive lexical decision task.

Davis et al. (1996) presented evidence that the effects of perspective-taking can be divided into consciously controlled effects and more implicit effects not under direct conscious control. In the Davis et al. study, increased liking due to perspective-taking did not mediate increases in self-target overlap. In addition, the increases in self-target overlap were generally impervious to depletions of cognitive resources. We found that perspective-taking increased evaluations of the very targets of perspective-taking. In addition, perspective-takers showed evidence of implicit stereotype control rather than stereotype hyperaccessibility. Like the findings of Davis et al., however, we found that these conscious effects of increased evaluations did not mediate the nonconscious effect of decreased stereotype accessibility. Covarying out the effect of the evaluations expressed in the first narrative essay increased, rather than decreased, the effect of the experimental conditions on the transformed response latencies, $F(2, 33) = 4.5$, $p = .02$. We have suggested that the nonconscious effect of decreased stereotype accessibility is mediated by activation of the self-concept. However, we did not measure self-concept accessibility in Experiment 1. The next experiment more directly tests this assumption.

Experiment 2

In the second experiment, we sought to more clearly explicate the process by which the positive benefits of perspective-taking occur. Davis et al. (1996) found that perspective-taking led par-

ticipants to ascribe self-descriptive traits to a target person. In other words, they saw more of themselves in that person. This suggests that perspective-taking activates a stored representation of the self, which then gets used in the process of categorization and exerts an influence on the interpretation of later ambiguous events and behaviors (Higgins, 1996). Thus, perspective-taking increases the accessibility of the perspective-taker's self-knowledge. In addition, research on categorization suggests that knowledge structures compete with each other to win the metaphorical race toward categorization; only one category tends to be dominant at a time, even when another category is equally applicable (Macrae et al., 1995). If the self-concept gets activated and brought on line then it, rather than the stereotype, could be used to categorize the target.

In the Davis et al. (1996) study, self-descriptive traits were ascribed to a target person who did not belong to a stereotyped group (male participants took the perspective of a male target and female participants took the perspective of a female target). Would the ascription of self-relevant traits occur not only for target individuals but also for the group to which the target belonged? And would it occur if the target were a member of an out-group?

To explore this question the next experiment followed the methodology of Smith and Henry (1996) and Aron, Aron, Tudor, and Nelson (1991). The Smith and Henry study had participants describe themselves, their in-group, and an out-group according to 90 heterogeneous traits. They found that participants responded more quickly and with fewer errors to words that both the self and the in-group possessed. In our next experiment we had participants rate themselves on the 90 traits that Smith and Henry used. After completing that task, participants completed the same narrative essay task that we used in Experiment 1; participants in one of three experimental conditions (control, stereotype suppression, and perspective-taking) wrote a narrative essay about an elderly man. After a few filler tasks, participants were shown the same 90 traits with which they had rated the self and were asked to provide their personal opinions about the general characteristics of the elderly using those traits. We predicted that perspective-takers would show greater overlap between the representations of the self and representations of the elderly compared with the other two conditions. Because we wanted to show that the ascription of self-relevant traits to the group was an implicit effect of perspective-taking (Davis et al., 1996), great care was taken to separate the narrative essay task from the task in which they assigned traits to the group. Experiment 1 showed that when a subsequent task is very similar to the task in which perspective-taking is manipulated, then participants continue to pursue that goal. Thus, we attempted to prevent participants from continuing to consciously pursue the perspective-taking goal so that we could look at the nonconscious consequences of that goal—activation and application of the self-concept.

In addition, a few of the 90 traits are relevant to the stereotype of the elderly. These traits were a measure of the stereotypicality of the participants' representation of the elderly. We predicted that perspective-takers would attribute fewer stereotypic traits to the elderly.

Finally, Davis et al. (1996) found increased self-target overlap on positive traits only—there was no effect on negative traits. Like Smith and Henry (1996) and Smith, Coats, and Walling (1999), we separated the words into positive and negative subgroups to test whether valence interacted with the experimental conditions. Ap-

proximately half of the traits used were positive and the other half, negative.

Method

Participants and design. Participants were 85 undergraduates who were paid for their participation. They were tested in groups of 3 to 6. The design of the study was a single-factor, between-participants design with three levels of the manipulated variable (condition: control vs. stereotype suppression vs. perspective-taking). Three participants were removed for failing to write the narrative essay, leaving 82 participants in the final analysis.

Procedure. Participants arrived in the laboratory and were told that they were going to participate in a number of unrelated tasks, some of which involved language processing and others that involved perceptions of the self and others. Participants were first given the list of 90 traits from Smith and Henry (1996) and asked to rate how well each trait described them using a scale anchored at 1 (*extremely unlike*) and 7 (*extremely like*). Next, participants completed the narrative essay task in which they were presented with the same photograph and instructions from Experiment 1. This task was emphasized as dealing with language processing and linguistic expression. Participants were given a series of attitudes and personality questionnaires that took approximately 15 min. The filler tasks were included to separate the narrative essay task from the trait assignment to the elderly. After these filler tasks, participants were given the same list of 90 traits and asked to

Please rate how well each trait describes the elderly using the following scale. Although not all group members are exactly alike, group members tend to be similar on many traits and you should provide your personal opinions about the general characteristics of the elderly.

These were the same instructions that Smith and Henry (1996) used.

Great care was made to separate the trait assignment task from the narrative essay task. We wanted to ensure that any increased overlap between participants' own self-concept and representations of the elderly was not the result of participants thinking that they were to continue actively taking the perspective of the elderly. First, participants were told that the two tasks were completely separate experiments. The narrative essay task was described as part of the language processing study and the trait ratings were described as part of a study on representations of groups. Second, the social group to which the person in the photograph used in the narrative essay belonged was never mentioned; by not providing a label, participants would be less likely to connect the two tasks. Third, none of the participants expressed an effect of the narrative essay on their judgments of the elderly. Fourth, pilot testing demonstrated that participants do not associate the applying of self-relevant traits as an effect of perspective-taking. Finally, because approximately half of the words were positive and half of the words were negative, one might expect that the increased overlap should occur only for positive traits if participants were strategically using perspective-taking. In the Davis et al. (1996) experiment, participants assigned traits to the target of perspective-taking immediately after taking the perspective. They found no effect of perspective-taking on the ascription of negative words. This suggests some motivation to assign positive traits when perspective-taking is being strategically used. For all these reasons we are confident that any increase in self-group overlap for perspective-takers is not an artifact or due to demand characteristics. After rating the elderly, participants were debriefed.

Results and Discussion

Stereotypicality and valence of narrative essay. Two raters blind to both predictions and experimental conditions estimated the overall stereotypicality of the contents of each passage and its valence using the same scales as Experiment 1. For ratings of

stereotypicality and valence, interrater reliability was acceptable, $rs(82) > .67$, and therefore the ratings were averaged across coders. A one-way ANOVA conducted on the averaged ratings of stereotypicality of the essays revealed a significant effect of condition, $F(2, 79) = 4.6, p = .01$. A planned contrast comparing the perspective-takers and the stereotype suppressors against participants from the control condition was significant, $F(1, 79) = 9.0, p < .01$. Both stereotype suppressors ($M = 4.8$) and perspective-takers ($M = 5.0$) wrote less stereotypical essays of the elderly than did participants in the control condition ($M = 6.0$).

For valence ratings, the one-way ANOVA was significant, $F(2, 79) = 5.9, p < .01$. A contrast comparing the perspective-taking condition against the suppression and control conditions was significant, $F(1, 79) = 7.3, p < .01$. Perspective-takers ($M = 6.0$) expressed more positive evaluations of the target compared with participants in the control participants ($M = 4.9$) and the suppressors ($M = 5.6$). These results replicate the pattern found in Experiment 1 in which perspective-takers and suppressors both restricted the expression of stereotypic content, but only perspective-takers expressed more positive evaluations of the target.

Stereotypical trait attributions to the elderly. Five traits were selected that were stereotypical of the elderly: *weak*, *dependent*, *self-reliant* (reverse coded), *worrier*, and *dull*. These traits were chosen because they were in the upper quarter of the traits used in pretesting for Experiment 1. A one-way ANOVA conducted on the attributions to the elderly using the stereotypical traits was significant, $F(2, 79) = 3.5, p < .04$. A planned contrast comparing the stereotypical ratings of the perspective-takers ($M = 3.99$) against the control participants ($M = 4.53$) and suppressors ($M = 4.35$) was significant, $F(1, 79) = 6.3, p < .02$. Perspective-takers rated the elderly less stereotypically than did participants in the other two conditions.

Degree of overlap between representations of the self and the elderly. To assess degree of overlap between representations of the self and representations of the elderly, the absolute value was taken of the difference between ratings for the elderly and ratings for the self for each of the 85 nonstereotypic traits (a smaller number means greater self-group overlap).⁵ These 85 traits were divided into negative and positive subgroups on the basis of the valence ratings of 10 independent participants who judged whether the trait was positively valenced or negatively valenced using a 7-point scale anchored at 1 (*negative*) and 7 (*positive*). Using a median split, 43 of the words were coded as negative and 42 of the words were coded as positive.

The absolute value of the difference between self-ratings and ratings for the elderly were submitted to a 3 (experimental condition: control vs. stereotype suppression vs. perspective-taking) \times 2 (word type: positive vs. negative) mixed-model ANOVA with repeated measures on the second factor.

There was a significant main effect for experimental condition, $F(2, 79) = 3.6, p = .03$. The interaction testing whether there were any differences between the positive and negative traits across the experimental conditions was not significant, $F < 1$. A planned contrast comparing the degree of overlap between representations

⁵ The pattern of the data remain the same (and the effect is stronger) when the stereotypical traits are included in the average of all the traits, but to provide a more conservative test of our hypothesis we present the average of the 85 traits that were not stereotypic of the elderly.

of the self and of the elderly of the perspective-takers against those of the control participants and suppressors was significant, $F(1, 79) = 6.8, p = .01$. Perspective-takers ($M = 1.66$) displayed more overlap between their representations of the self and their representations of the elderly than both participants in the control condition ($M = 1.91$) and suppressors ($M = 1.86$). Our results indicate that not only do perspective-takers ascribe self-descriptive traits to a target (see also Davis et al., 1996), but this ascription extends to the social group the person represents.

We next tested whether it was the increased self-group overlap that diminished the degree of stereotypical responding by perspective-takers. An analysis of covariance (ANCOVA) was conducted across the experimental conditions on the ratings of the stereotypical traits with the degree of self-group overlap covaried out. The subsequent ANCOVA revealed a significant effect of the covariate, $F(1, 78) = 4.6, p < .04$. The introduction of the covariate also eliminated the significant effect of experimental condition on the ratings for the stereotypical traits, $F(2, 78) = 1.9, p = .15$. Perspective-takers were attributing self-descriptive traits to the elderly, and this increased self-group overlap in representations resulted in less stereotypical ratings.

The ascription of self-descriptive traits to the elderly occurred for both positive and negative words. Davis et al. (1996) did not find reliable ascription of negative traits to the target of perspective-taking. Finding the effect on both positive and negative words suggests that participants were not strategically using the perspective-taking manipulation when ascribing traits to the elderly. If this were true, it would have been predicted that the ascription would have occurred only for positive traits as it did in the Davis et al. experiments. These results suggest that participants were not conscious of ascribing self-relevant traits in constructing a representation of the elderly as a social group. The self-concept, both its positive and negative elements, got activated and applied (Higgins, 1996). In addition, we performed an ANCOVA similar to the one we performed in Experiment 1. Although controlling for the effect of the evaluations expressed in the narrative essay in the degree of self-group overlap did reduce the effect to nonsignificance, $F(2, 78) = 2.6, p = .078$, the effect of experimental conditions was still marginal. This finding replicates the pattern of results from Davis et al. (1996) in which the majority of self-target overlap effects remained at least marginal when controlling for liking toward the target. Like in Experiment 1, the nonconscious effects of perspective-taking, increased overlap between self and group caused by activation of the self-concept, appear to be distinct from the more conscious effects of expressing positive evaluations in the narrative essays.

One problem with the conclusion that perspective-taking is a constructive alternative to suppression is that Experiments 1 and 2, like most previous experiments on stereotype suppression, used a stereotype that is not particularly socially sensitive ("the elderly") and one that most participants do not feel the need to inhibit under ordinary conditions (Macrae et al., 1996). Evidence from the third narrative essay of Experiment 1 supports the contention that as the socially sensitive nature of the stereotype increases so do spontaneous efforts at suppression. Wyer, Sherman, and Stroessner (1998) led participants to spontaneously suppress stereotypes by stating that an attitude survey concerning African Americans was for a political group entitled "African Americans for Intellectual Understanding" compared with a control condition who were not told for which group the survey was intended and who were simply

told to be honest and accurate in their surveys. Macrae, Bodenhausen, and Milne (1998) found that conditions that result in heightened self-focus induce spontaneous efforts at suppression. The Wyer et al. experiment and our Experiment 1 suggest that the likelihood of spontaneous suppression increases not only when self-focus is high, but also when social and political discussion surrounding the group is particularly incendiary.

Galinsky and Moskowitz (1999) demonstrated both that rebound effects, as measured by an unobtrusive, lexical decision task, occur even when the stereotype being suppressed is socially sensitive and that the benefits of perspective-taking survive exposure to a socially sensitive stereotype. They used the African Americans stereotype and the methodology closely followed that of Experiment 1 reported here. Participants wrote narrative essays from a photograph of an African American and then completed a lexical decision task. Because the third narrative essay from Experiment 1 found that the socially sensitive nature of the stereotype leads to spontaneous suppression, Galinsky and Moskowitz had control participants rely on the stereotype in constructing their narrative essays—participants were in a stereotype expression condition. Forcing participants to express the stereotype is analogous to the original manipulations on thought suppression (e.g., the "think about white bears" vs. "suppress thoughts about white bears" instructions used by Wegner, Schneider, Carter, & White, 1987) and provided a stronger test of the hypothesis that suppression makes the stereotype hyperaccessible. Results showed that suppressors responded more quickly to stereotype-consistent words even when compared with stereotype expressers, demonstrating hyperaccessibility as it is classically defined. In addition, their experiment used a no-narrative essay control. The response latencies of perspective-takers were almost identical to the latencies of the no-essay control, suggesting that perspective-taking had inhibited the activation of the stereotype.

Experiment 3

In the final experiment, we explored the role of perspective-taking in affecting attitudes and evaluations of out-groups. The experiment was also conducted to find further evidence that self-concept activation and application are integral components of the effectiveness of perspective-taking in affecting intergroup evaluations. The experiments already presented have compared suppression and perspective-taking as two potential strategies used to exert control over stereotyping. Suppression, however, may not be a viable strategy when no content is known about a group, or when there is not an integrated construct used to describe the group; without known content there is nothing to suppress. Such a situation exists when groups are differentiated and created on the basis of responses to a novel situation. The use of perspective-taking, unlike suppression, does not depend on an integrated construct. Perspective-taking is still a viable strategy for reducing intergroup bias in this situation because the activation and application of the self should occur regardless of whether an integrated construct exists. Seeing the self in the other should lead to more positive out-group evaluations, an essential component of decreasing in-group favoritism. Using the next experiment, we examined whether perspective-taking can decrease the in-group favoritism that often results from heightened group distinctiveness.

For Experiment 3, we relied on the minimal group paradigm, where the mere categorization of people into groups, even when

the "group" is defined by a trivial distinction, has been shown to be sufficient to create in-group biases. Such biases range from favoring the in-group when allocating points or money (Tajfel, Billig, Bundy, & Flament, 1971), to differential evaluations of in-group and out-group members on evaluative traits (Locksley, Ortiz, & Hepburn, 1980), to both attributional and memorial biases (Howard & Rothbart, 1980) such as the ultimate attribution error (Pettigrew, 1979; Taylor & Jaggi, 1974).

Past research has examined forces that attenuate such biases. Locksley et al. (1980) showed that by providing individuals with information about allocation decisions and trait ratings by other members of the in-groups and out-groups, in-group favoritism was eliminated only when the out-group was more rewarding (e.g., offered more points) than the in-group. Thompson (1993) found that an integrative negotiation that produces a mutually beneficial agreement eliminated in-group favoritism as measured by trait ratings; specifically the positivity of the out-group evaluations was increased. Wilder (1986) noted that processes that diminish the salience of the in-group/out-group distinction, or that lead to the individuation of out-group members, reduce biases. Some of these processes are disclosure of personal information about out-group members (Wilder, 1978), removal of cues that highlight dissimilarity between the groups, and recognition of overlapping social identities. Wilder (1986) explains that the effectiveness of these manipulations results from the perceiver taking the perspective of the out-group while focusing on contextual features other than category membership. In the next experiment, we explored this proposed mediational role of perspective taking in bias reduction.

Experiment 2 established that taking the perspective of an individual member of a social group increases the overlap between representations of the self and representations of the target's group. Perspective-taking may be a useful strategy for reducing in-group favoritism because inclusion of representations of the in-group within representations of the self have been shown to mediate the bias. That is, one explanation for the psychological favoring of a minimal in-group is that participants extend their positive self-representations to encompass their group (Cadinu & Rothbart, 1996; Smith & Henry, 1996). Recent research using the minimal group paradigm suggests that the in-group favoritism effects are produced by an automatic evaluation effect in which the in-group label acquires its positive meaning because of its association with the self (Otten & Moskowitz, 2000; Otten & Wentura, 1998). Cadinu and Rothbart (1996) presented evidence consistent with the hypothesis that in-group favoritism is a self-anchoring effect. Participants in their study demonstrated a stronger correlation between the self and in-group ratings when the self-ratings preceded the in-group ratings and they were more likely to generalize from the self to the in-group than vice versa. The process of taking the perspective of what it is like to be a member of the opposite group should lead to a creation of a cognitive representation of the other group that now overlaps with the participants' own self-representation (Davis et al., 1996). As the level of overlap between the self and out-group increases so should the positivity of out-group evaluations (Thompson, 1993).

It remains possible that perspective taking may affect intergroup evaluations in the minimal group paradigm not just through increasing self/out-group overlap in representations, but also by calling into question the group label. In minimal group settings, participants are likely to selectively recruit memories consistent with the feedback label (Ross, Lepper, & Hubbard, 1975). By

taking the perspective of an individual with the opposite estimation tendency, perspective-takers might recognize the presence of their own past behaviors that are consistent with the opposite estimation tendency. To test whether perspective-taking simply works through calling into question the label through recruitment of memories that are inconsistent with the label rather than increasing the overlap between representations of the self and representations of the out-group, another condition, in addition to the perspective-taking manipulation, was included. These participants were asked to recall a recent experience where they estimated something in the direction opposite to their estimation tendency.

One final way in which perspective taking might reduce in-group favoritism could be through promoting thoughts about dimensions on which the in-group and out-group are similar to each other. Some researchers have found that when separate groups are recategorized as one group, recategorized participants decrease bias by increasing their ratings of former out-group members because former out-group members are now considered to be part of the larger, more inclusive in-group; that is, they are considered to be in-group members (Gaertner, Mann, Murrell, & Dovidio, 1989). In the Gaertner et al. experiment, participants were merged into one group and worked on a problem-solving task. In the current experiment, any merging of the groups through contemplating areas of similarity would be purely psychological. Any perceptions of similarity also could be independent of the self, a link we hypothesize to be crucial in increasing evaluations of the out-group. In addition, Davis et al. (1996) found that increased liking after perspective-taking was independent of self-other overlap; although thinking of similarities may increase liking, it would not be necessarily expected to increase self-other overlap. Therefore, in addition to the perspective-taking manipulation and the recalling-of-past-behavior manipulation, in Experiment 3 we also examined whether thinking about similarities between the groups would eliminate in-group favoritism.

Participants not only rated how well each trait described both the in-group and the out-group, but they also assigned a valence or "favorability rating" to each trait. The favorability rating was used because Esses and Zanna (1995) found that evaluative meaning of traits can change when describing out-group members. For example, the trait intelligence when describing Jews (when they are an out-group) may be interpreted negatively as conniving. With regard to group-based evaluations (Brewer, 1979), loyal may be considered positively when describing the in-group, but take on negative connotations, such as clannish or exclusionary, when describing the out-group. No previous experiment has investigated the use of favorability ratings in the context of the minimal-group paradigm.

We predicted that only perspective-taking, which would involve an increase in self/out-group overlap, would increase evaluations of the out-group. Perspective-takers would be more likely to assign favorable traits to the out-group and also maintain the positive connotations of the group-relevant words in the context of the out-group.

Method

Participants and design. Participants were 40 undergraduates who received credit for participation as part of a course requirement. The design of the study was a 4 (experimental condition: control vs. perspective-taking vs. behavioral recall vs. perceived similarity) \times 2 (ratings: in-group vs. out-group) mixed design with repeated measures on the second factor.

Procedure. After arriving at the laboratory, participants were told that they would be participating in two separate tasks. The first task was a dot estimation task in which participants were asked to estimate the number of dots presented on a computer. After this task, the computer provided feedback informing participants that they consistently tended to overestimate the number of dots presented. They were further told that each style of estimation does not relate to the accuracy of judgments, but simply represents different patterns of responding.

After the feedback, the primary experimental manipulation took place. One fourth of the participants were told to write a short narrative essay about a day in the life of an underestimator, to "go through the day as if you were an underestimator, walking through the world in their shoes and looking at the world through their eyes." One fourth of the participants were asked to "recall a time in the past two weeks when you underestimated something. Try to recall when and where this underestimation occurred, concentrating on how you felt and reacted." If perspective-taking simply involved providing access to a range of experiences that would call into question the strength and direction of the estimation tendency label, there would be no differences between the perspective-taking and behavioral recall task. One fourth of the participants were asked to write a short narrative essay about the ways in which overestimators and underestimators are similar to each other. The final one fourth of the participants did not write a narrative essay and went straight to the dependent measures.

After writing the narrative essays (or after receiving the feedback for control participants), participants were told

We are interested in the intuitions lay individuals have about the characteristics of the different estimation tendencies. The measures will explore your intuitions and expectations about the psychological construct of perceptual style and estimation tendency. Although psychologists know a lot about what perceptual style relates to, little research has been done on what individuals think this construct relates to.

The judgments involved rating the two different estimation tendencies on 10 different positive dimensions (considerate, cooperative, friendly, generous, honest, kind, loyal, sincere, trustworthy, understanding) considered to be desirable in a valued group member (Brewer, 1979) using a 7-point scale anchored at 1 (*never true*) and 7 (*always true*). Participants were asked to indicate their expectations about the personality characteristics of each group. They first rated the in-group (i.e., overestimators) along all 10 dimensions and then rated the out-group (i.e., underestimators) along all 10 dimensions. Participants not only rated how well each trait describes both groups, but they also assigned a valence or "favorability rating" to each trait. The favorability rating was used because Esses and Zanna (1995) found that evaluative meaning of traits can change when

describing out-group members. Participants were asked to assign a valence to each characteristic using the following scale: --, -, 0, +, ++. Participants first rated the valence of the traits in the context of the in-group (i.e., overestimators) along all 10 dimensions and then rated the valence of the traits in the context of the out-group (i.e., underestimators) along all 10 dimensions. The measure used by Esses and Zanna combined (multiplicatively) both the valence rating with ratings of the percentage of the group to which each trait applied. Participants were therefore asked to rate the percentage of both in-group members and out-group members for which each trait applied; participants first made percentage ratings for the in-group for all 10 traits and then they made ratings for the out-group.

Next, participants answered a number of questions that examined how much they perceived their estimation tendency influenced their lives. They were first asked to rate what percentage of their daily activities was affected by their estimation tendencies. After that question, the activities were broken down into different types, which included academic tasks and personal tasks (e.g., hobbies, friendships, athletics, and value of possessions); specifically, participants were asked "what effect does your estimation tendency have on the following activities" and they answered for each activity using a 7-point scale anchored at 1 (*no effect*) and 7 (*complete effect*). Participants then rated the percentage of their friends that shared their estimation tendency. Finally participants rated how satisfied they were with their estimation tendency using another 7-point scale anchored at 1 (*very unsatisfied*) and 7 (*very satisfied*).

Results and Discussion

Assignment of traits to the in-group and the out-group. Ratings of the traits for the in-group were combined into one summated index, as were the ratings for the out-group (yielding a range of possible scores from 10 to 70). These indices were submitted to a 4 (experimental condition: control vs. perspective-taking vs. behavioral recall vs. similarity) \times 2 (group: in-group vs. out-group) mixed-model ANOVA with repeated measures on the second factor (see Figure 2). A significant main effect for group, $F(1, 36) = 26.1, p < .001$, was qualified by the predicted Condition \times Group interaction, $F(3, 36) = 4.3, p = .01$. Level of in-group favoritism was tested within each condition. Participants in the control condition rated the in-group ($M = 52.8$) more favorably than the out-group ($M = 42.8$), $t(9) = 5.3, p < .001$. Participants in the similarity condition rated the in-group ($M = 45.6$) more favorably than the out-group ($M = 41.2$), $t(9) = 2.6, p < .03$. Participants in the behavioral recall condition rated the in-group ($M = 48.8$) marginally more favorably than the

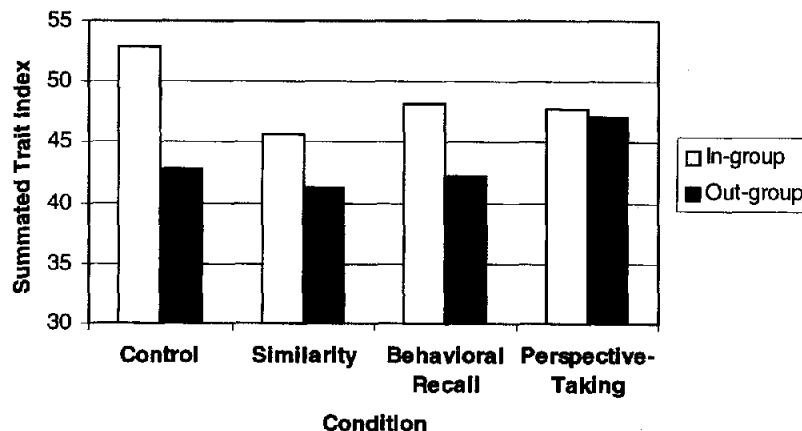


Figure 2. Trait ratings of the in-group and the out-group.

out-group ($M = 42.2$), $t(9) = 2.1$, $p = .06$. However, participants in the perspective-taking condition did not rate the in-group ($M = 47.8$) any higher than the out-group ($M = 47.0$), $t(9) < 1$.

One-way ANOVAs were conducted separately for the ratings of the in-group and the out-group across experimental condition in order to address the question of the process by which bias was reduced in the perspective-taking condition. The one-way ANOVA for the in-group was significant, $F(3, 36) = 2.8$, $p = .05$. Participants in each of the experimental conditions rated the in-group less favorably compared with those in the control condition; a contrast comparing the three experimental conditions against the control condition was significant, $F(1, 36) = 7.3$, $p = .01$. Although the one-way ANOVA was not significant for the out-group evaluations, $F(3, 36) = 1.3$, $p > .30$, a planned contrast comparing the perspective-taking condition against the other three conditions was marginal, $F(1, 36) = 3.6$, $p = .07$. The combination of this contrast along with the lack of difference between in-group and out-group evaluations for perspective-takers, suggests that taking the perspective of what it is like to be an out-group member increased ratings of the out-group to a level comparable to that of the in-group.

Assignment of trait valence to the in-group and the out-group. Valence values were transformed into numbers ranging from 2(--) to 2(++). Like Esses and Zanna (1995), the valence of each trait was combined with the percentage of group members to which each characteristic was attributed using the formula,

$$S_g = \sum_{i=1}^{10} (V_{ig} \times P_{ig}),$$

where S = sum, V = valence, P = percentage, and g = group. (The same pattern emerges when only valence is investigated independent of percentages.) The valence scores for the in-group and out-group were submitted to a 4 (experimental condition: control vs. perspective-taking vs. behavioral recall vs. similarity) \times 2 (group: in-group vs. out-group) mixed-model ANOVA with repeated measures on the second factor. A significant main effect for group, $F(1, 36) = 23.2$, $p < .001$ was qualified by the predicted Condition \times Group interaction, $F(3, 36) = 3.2$, $p < .04$. As with trait ratings, level of in-group favoritism was tested within each condition. Participants in the control condition rated valence of words in the context of the in-group ($M = 7.2$) more positively than in the context of the out-group ($M = 2.7$), $t(9) = 4.0$, $p < .003$. Participants in the similarity condition rated the connotative meaning of the words marginally more positively in relation to the in-group ($M = 4.8$) than in relation to the out-group ($M = 2.9$), $t(9) = 2.1$, $p < .067$. Participants in the behavioral-recall condition rated the words in the context of the in-group ($M = 5.6$) marginally more favorably than in the context of the out-group ($M = 3.3$), $t(9) = 2.1$, $p = .06$. However, participants in the perspective-taking condition did not differentiate the connotative meaning of the words between the in-group ($M = 6.1$) and the out-group ($M = 5.6$), $t(9) < 1$.

One-way ANOVAs were conducted separately for the ratings of the in-group and the out-group across experimental condition. Unlike the trait ratings, no significant difference emerged when looking only at the valence scores for in-group ratings; the one-way ANOVA was not significant, $F(3, 36) < 1$. Although the one-way ANOVA did not reach significance for the out-group evaluations, $F(3, 36) = 1.9$, $p = .15$, a contrast testing our specific

hypothesis that perspective-taking would increase the valence and connotative meaning of words in the context of the out-group compared with the other three conditions was significant, $F(1, 36) = 2.3$, $p = .02$. For out-group ratings, perspective-takers had higher valence scores compared with the other three conditions. The assignment of both traits and the valence of those traits, their connotative meaning, in the context of the in-group and the out-group suggests that perspective-taking decreased bias in the minimal group paradigm by increasing the evaluation of the out-group.

Satisfaction with group membership and perceived influence of estimation tendency. No significant main effects emerged for the items measuring perceived influence of estimation tendency on daily life. Although perspective-takers did not show the same level of in-group favoritism, they were just as satisfied with their estimation tendency and they saw it as equally influential in their daily activities as participants in the other conditions.

Given that perspective-takers did not show any reduction on the valence ratings of traits when evaluating the in-group, the main conclusion from this experiment is that the perspective-taking reduced bias by increasing evaluations of the out-group. This benefit appears to occur independently of the recall of autobiographical memories that contradict the implications of group membership. The results demonstrate the success of perspective-taking at alleviating intergroup bias, even when there is no known content of the stereotype of the out-group or a specific target individual whose perspective one has taken (as participants were told to take the perspective of "an underestimator," not a specific individual). The results, along with those of Experiment 2, suggest that perspective-taking increased the evaluations of the out-group through the creation of a cognitive representation of the out-group that now overlaps with the participants' own self-representation. This is consistent with the work of Otten and Wentura (1998), Cadinu and Rothbart (1996), and Smith and Henry (1996), all of whom presented evidence that in-group favoritism is created and perpetuated by extending positive self-representations to encompass the in-group. These results also extend those of Experiment 2, which demonstrated that taking the perspective of a specific individual can affect representations of the out-group.

In addition, the experiment demonstrated for the first time in the minimal group paradigm that the evaluative meanings of group-relevant traits (see Brewer, 1979) differ when placed in the context of in-group evaluations than when placed in the context of out-group evaluations. Participants in the non-perspective-taking conditions rated the evaluative meaning of group relevant traits (e.g., loyal, cooperative, kind) more positively when rating the traits' meanings in relation to the in-group than in relation to the out-group. This evaluative shift has important implications for intergroup relations. The in-group may be suspicious and have tacit distrust of any positive behaviors by the out-group, regardless of their genuineness. Research on minority influence has also demonstrated such attributional shifts in connotative meaning when a majority group member judges a fellow majority group member versus a minority group member (see, e.g., Clark & Maass, 1988). Perspective-taking eliminated this shift, maintaining the positive implications of the words when rating valenced meaning in the context of the out-group. For perspective-takers, kind behaviors by the out-group or minority in-group might be taken at face value, as a sign of authentic positive regard.

General Discussion

In the three experiments, we focused on the role of perspective-taking in reducing a number of biases that have implications for stereotyping and intergroup relations. The results support the contention that perspective-taking is a successful strategy for debiasing social thought. Perspective-taking tended to increase the expression of positive evaluations of the target, reduced the expression of stereotypic content, and prevented the hyperaccessibility of the stereotype construct. These positive consequences occur regardless of whether the stereotype under consideration is not very socially sensitive (e.g., the elderly) or, as Galinsky and Moskowitz (1999) found, particularly socially sensitive (e.g., African Americans). Group-based judgments became more positive even when stereotypic content about an out-group was unknown. Perspective-taking decreased differential treatment of in-groups and out-groups in the minimal group paradigm by increasing the applicability of positive traits and the evaluative meaning of those traits when judging the out-group.

Increasing Self-Other Overlap Through Perspective-Taking

The pattern of data across all the experiments support recent theorizing that perspective-taking produces positive consequences—from shifting attributions to sympathy to providing help to those in need—by increasing the overlap between the self and the target of perspective-taking (Cialdini et al., 1997; Davis et al., 1996; Regan & Totten, 1975). Experiment 2 provided direct evidence that the positive effects of perspective-taking occur through increasing the overlap between representations of the self and the target group. Representations of the group are assimilated to the activated self-concept and this process decreased stereotypic responding. Previous research documenting self-other overlap after perspective-taking (Cialdini et al., 1997; Davis et al., 1996; Neuberg et al., 1997) have looked only at the overlap between the self and individual targets. Wright, Aron, McLaughlin-Volpe, and Ropp (1997) found that knowledge of an in-group member's close relationship with an out-group member improved attitudes toward the out-group. Wright et al. (1997) proposed, but did not provide evidence, that this effect is mediated by the processes of self-other overlap:

In an observed in-group/out-group friendship, the in-group member is part of the self, the out-group member is part of that in-group member's self, and hence part of myself... then to some extent the out-group is part of myself. (p. 76)

Our research demonstrates that this increase in overlap extends to include the group that the target represents. Perspective-taking changes representations of the group to be more self-like. The self was applied to representations of the elderly and of African Americans in Galinsky and Moskowitz (1999), and even underestimators. Increasing the overlap between representations of self and representations of the out-group may go a long way in alleviating out-group hostilities and promoting minority influence.

The results also support the distinction between conscious, explicit processes and nonconscious, implicit processes. In Experiment 1, perspective-taking decreased bias on a conscious task related to the perspective-taking manipulation; participants limited the expression of stereotypic content and expressed more positive

evaluations toward the target in their narrative essays. Perspective-taking also prevented hyperaccessibility of the stereotype on a task that prevented the conscious use of the perspective-taking goal—participants responded more slowly to stereotype-consistent words compared with suppressors in a lexical decision task. In addition, the effects on the lexical decision latencies were independent of the evaluations participants expressed in their essays. Davis et al. (1996) suggested that increased self-other overlap was a nonconscious effect of perspective-taking that was independent of liking or perceived similarity. Experiment 2 extended Davis et al.'s finding of increased self-other overlap to the situation in which the self now overlaps more with the out-group. Similar to Davis et al.'s findings, the results of increased self-group overlap were mostly independent of the evaluations expressed in the essays. The combination of Experiments 1 and 2 suggest that perspective-taking nonconsciously increases the accessibility of the self-concept, which then diminishes the accessibility and application of the stereotype because only one construct tends to be dominant at any one time (Allport, 1954; Bruner, 1957; Macrae et al., 1995).

Self-Other Overlap and Prosocial Behavior

The increased self-other overlap has important implications for the on-going debate over whether increased helping after perspective-taking is truly altruistic or egoistically motivated (Batson, 1997; Batson, Sager, et al., 1997; Cialdini et al., 1997; Neuberg et al., 1997). Cialdini et al. presented evidence that the conditions that increase empathic concern also increase self-other target overlap. In addition, the relationship between empathy and willingness to help was eliminated when the degree of self-other overlap was statistically controlled. Cialdini et al. claimed that helping follows empathy because empathy serves as an emotional signal of oneness. Thus, there is evidence that self-other merging can reliably mediate the link between perspective-taking and helping.

Cialdini et al. (1997) raised the question that if empathy-induced helping is caused by increased self-other overlap, then seemingly altruistic acts may be selfishly motivated. If perspective-taking blurs the distinction between self and other, then it becomes harder to distinguish the selflessness of altruism from a more selfish motivation. Cialdini et al. discuss the possibility that it is not just the seeing more of the other in oneself that increases helping, but also seeing more of oneself in the other. Given that humans are driven by inclusive fitness concerns (Hamilton, 1964), the desire to ensure the welfare and survival of their genes above and beyond self-survival concerns, then feelings of oneness increase the belief that the self really is in the other and therefore activates the motivation to help.

Batson, Sager, et al. (1997) suggested that the effects of perspective-taking on helping are independent of self-other overlap. In their studies, participants took either the perspective of a student from their university or the perspective of a student from a rival university. The link between empathy and helping was unqualified by the group membership of the target. They suggested that this lack of difference, along with failures to find any mediation for their measures of self-other merging, demonstrates that perspective-taking is independent of perceived connections to targets. The research presented here suggests that although perspective-taking may not depend on shared group memberships,

the degree of self–target overlap is a critical determinant of whether perspective-taking will be effective.

Gestures of altruism, of heroic helping, may be selfishly motivated. Recognizing the contemporary discrimination against disadvantaged groups after perspective-taking (Galinsky, 1999a) may depend on seeing the self as a potential victim. If we see more of ourselves in the elderly, then we will be kinder to them and less likely to activate stereotypic representations of that group. The paradox is that selfishly motivated acts can produce positive social consequences.

Perspective-Taking and Stereotype Accessibility

The results of Experiment 1 and those of Galinsky and Moskowitz (1999) suggest that perspective-taking can be a useful strategy for decreasing the accessibility of stereotypes. Galinsky and Moskowitz (1999) found no differences in stereotype accessibility between a perspective-taking condition and a no-prime control, suggesting that perspective-taking prevented the activation of the stereotype. In the present article, we have argued that increased self–outgroup overlap diminishes the accessibility of the stereotype. Given that knowledge structures compete for the right to categorize a stimulus (Bruner, 1957) and that only one category tends to be dominant at a time (Macrae et al., 1995), the activation of the self-concept wins the battle for categorization over the stereotype.

With the accessibility of the stereotype curtailed, stereotypes are less likely to color perceptions, memory, and judgment or to be used to categorize ambiguous behaviors (for reviews of stereotype effects, see Stangor & Lange, 1994; von Hippel, Sekaquaptewa, & Vargas, 1995). Because perceived differences and self-threats (Fein & Spencer, 1997; Spencer, Fein, Wolf, Hodgson, & Dunn, 1998) can increase the accessibility of stereotypes, the self–target (Davis et al., 1996) and self–group overlap (Experiment 2) associated with perspective-taking can help diminish the tendency to activate stereotypes. As Brewer (1988, 1996) noted, stereotypes are less likely to be activated when a strong interpersonal orientation characterizes the relationship between a perceiver and a target; relationship-based and situationally relevant traits are more likely to become activated rather than the stereotype.

Recent research suggests that the automatic activation of stereotypes does not occur for all individuals. Fazio, Jackson, Dutton, and Williams (1995), Lepore and Brown (1997) and Moskowitz, Gollwitzer, Wasel, and Schaal (1999) have all shown that a select group of participants do not demonstrate automatic activation effects. The Lepore and Brown study showed that a group representation is automatically activated by racial primes but that there is variability in the amount of overlap between the group representation and the stereotype. Those studies suggested that for some individuals the negative stereotype for a group can be controlled and replaced with a more positive representation. In the studies presented here, the increase in self–outgroup overlap changes the representation of the group to be more positive. There is now more overlap between the representation of the group with the self than with the stereotype.

Other research has looked at situations and temporary goals that reduce the accessibility of stereotypes. Gilbert and Hixon (1991) and Spencer et al. (1998) found that cognitive load disrupted stereotype activation. Macrae et al. (1997) demonstrated that processing goals focused on content irrelevant to social categorization

(e.g., looking for a dot on a picture of a woman) prevented the activation of stereotypes. Kawakami et al. (1998) found the link between the group representation and the stereotype can be severed by training participants to replace the stereotype with different beliefs. Gollwitzer, Schaal, Moskowitz, Hammelbeck, and Wasel (1999) demonstrated that the intention to be egalitarian, supplemented by practicing an egalitarian response to stereotypic targets, can control the activation of stereotypes.

Perspective-taking is perhaps another useful processing strategy that temporarily dissipates the strength of the links between group representations and the stereotype. In fact, perspective-taking may be a particularly pragmatic strategy because attentional focus remains on the individual. Perspective-taking allows for the individual to diminish the level of stereotype accessibility by remaining present in an interracial or intergender interaction rather than requiring psychological disengagement and withdrawal.

Perspective-Taking and Suppression: Approach and Avoidance

Stereotype suppression is effective at controlling responses on explicit, obtrusive measures of stereotyping but has deleterious, unintended consequences on nonconscious, implicit stereotyping. Consistent with previous research (Monteith et al., 1998; Wyer et al., 2000), rebound effects did not emerge in our research on measures (e.g., narrative essays) that alerted suppressors to keep the goal of suppression active. When response assessment appeared to have no relevance to stereotypes or suppression (lexical decision task), rebound effects emerged (see also Monteith et al., 1998).

Perspective-taking and thought suppression are strategies that can be used to decrease the accessibility and application of stereotypes. An important difference between these strategies is how one navigates toward that goal. Stereotype suppression can be conceived of as an avoidance- or prevention-oriented strategy and perspective-taking as an approach- or promotion-oriented strategy. Higgins (1998) pointed out that goals can be framed either in terms of prevention or promotion; an individual taking a test may be concerned with not getting a bad grade (prevention) or with striving toward a good grade (promotion). Similarly, Wegner and Wenzlaff (1996) discussed the distinction between strategies of mental control geared toward approaching a particular mental state and strategies aimed at avoiding a particular mental state. Moskowitz (1996) and Devine (1998) used a similar distinction in distinguishing between internally motivated control of prejudice, in which an individual approaches the goal of being nonprejudiced, and externally motivated control of prejudice, in which an individual retreats from being or appearing prejudiced.

Suppression of stereotypic knowledge is a strategy designed to avoid the state of prejudice. The activation of the avoidance or prevention regulatory system produces a general tendency to avoid intergroup interactions (Devine, 1998) and to display distancing behaviors in intergroup interactions (Macrae et al., 1994; Word, Zanna, & Cooper, 1974). Suppression affects not only the accessibility of stereotypes, but also the immediate and delayed motivations of the suppressor.

Perspective-taking focuses attention outward toward the target individual. The potential activation of an approach or promotion focus by perspective-taking might have a number of beneficial effects that could contribute to the reduction of stereotyping. An

approach or promotion focus can affect persistence at a task in the face of potential failure and, if failure has occurred, can produce feelings of guilt and recrimination (Devine, Monteith, Zuwerink, & Elliot, 1991) that aid in the establishment of coping strategies used to respond more effectively in the future (Monteith, 1993; Monteith & Voils, in press; Moskowitz, in press). The approach orientation of perspective-taking may lead to increased intergroup contact; creation of more interdependent, ethnically mixed groups; more positive interactions; and a reduction in mistrust (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978; Sherif, 1966).

Limits of and Biases Inherent in Perspective-Taking

Experiments presented by Galinsky (1999a, 1999b) also established some boundary conditions for the effects of perspective-taking to emerge. First, the effects appear to be group specific; in Galinsky's (1999a) study, taking the perspective of an African American target increased awareness of continued discrimination directed toward African Americans but taking the perspective of that target did not increase, but decreased, sensitivity to discrimination directed toward women. The consequences of taking the perspective of a member of one social group do not seem to generalize beyond that group. Second, Galinsky (1999b) found that the beneficial outcomes of perspective-taking required instructions that are especially vivid, process oriented, and descriptive.

Other research has found that perspective taking may not always prove successful. Dovidio, Allen, and Schroeder (1990) found that, after inducing empathy, assistance only increased for the problematic situation for which empathy was induced and did not activate a more general tendency to help. Thompson (1993) found that when a mutually beneficial outcome to a negotiation was not possible, no attenuation of in-group favoritism occurred. Perspective-taking can also conflict with other beliefs and norms, such as justice, fairness, and equity. Because the target of perspective-taking gets accorded "favored" status, perspective-taking can lead to preferential treatment of the targets of perspective-taking (Batson, Klein, Highberger, & Shaw, 1995). Batson, Klein, et al. argued that empathy-induced altruism (the increased concern for the welfare of another) and morality (defined as the upholding of a given moral principal) should be considered independent social motives because their participants altered a system of equal distribution to preferentially allocate resources to the target of empathy. In addition, perspective-taking can reduce overall contributions to the collective in a social dilemma paradigm by preferentially allocating resources to the target of empathy (Batson, Batson, et al., 1995).

Conclusion

Despite the progressive drive toward equality in the United States at both the philosophical and constitutional level, negative stereotypes persist. These stereotypes are known, if not applied, by the vast majority of the populace (Devine, 1989). The entrenchment of stereotypes makes social relations potentially problematic and can infuse interactions with palpable feelings of unease and discomfort. How can one defend egalitarian principles against the everyday activation of stereotypes? The current research explored two different strategies for debiasing social thought—stereotype suppression and perspective-taking. Stereotype suppression appears to be an effective strategy for reducing the expression of

stereotypes, but it not only fails to reduce but can exacerbate bias where stereotyping is most insidious and invidious, at the implicit, nonconscious level. Perspective-taking, however, appears to diminish not just the expression of stereotypes but their accessibility. The constructive process of taking and realizing another person's perspective furthers the egalitarian principles themselves; perspective-taking is an effective reinforcement of contemporary admonitions to consider previously ignored or submerged perspectives as a routine part of social interchange and inquiry.

References

- Allport, G. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including the other in the self. *Journal of Personality and Social Psychology, 60*, 241–253.
- Aronson, E., Blaney, N., Stephan, L., Sikes, J., & Snapp, M. (1978). *The jigsaw classroom*. Beverly Hills, CA: Sage.
- Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer, Jr. (Ed.), *Advances in social cognition: Vol. 10. The automaticity of everyday life* (pp. 1–61). Mahwah, NJ: Erlbaum.
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Erlbaum.
- Batson, C. D. (1997). Self–other merging and the empathy–altruism hypothesis: Reply to Neberg et al. (1997). *Journal of Personality and Social Psychology, 73*, 517–522.
- Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, pp. 282–316). Boston: McGraw Hill.
- Batson, C. D., Batson, J. G., Todd, M. R., Brummett, B. H., Shaw, L. L., & Aldeguer, M. R. (1995). Empathy and the collective good: Caring for one of the others in a social dilemma. *Journal of Personality and Social Psychology, 68*, 619–631.
- Batson, C. D., Early, S., & Salvarani, G. (1997). Perspective taking: Imagining how another feels versus imagining how you would feel. *Personality & Social Psychology Bulletin, 23*, 751–758.
- Batson, C. D., Klein, T. R., Highberger, L., & Shaw, L. L. (1995). Immorality from empathy-induced altruism: When compassion and justice conflict. *Journal of Personality and Social Psychology, 68*, 1042–1054.
- Batson, C. D., Sager, K., Garst, E., Kang, M., Rubchinsky, K., & Dawson, K. (1997). Is empathy-induced helping due to self–other merging? *Journal of Personality and Social Psychology, 73*, 495–509.
- Batson, C. D., Symptom, S. C., Hindman, J. L., Decruz, P., Todd, R. M., Weeks, J. L., Jennings, J., & Burris, C. T. (1996). "I've been there, too": Effect on empathy of prior experience with a need. *Personality & Social Psychology Bulletin, 22*, 474–482.
- Bodenhausen, G. V., & Wyer, R. S. (1985). Effects of stereotypes on decision-making and information-processing strategies. *Journal of Personality and Social Psychology, 48*, 267–282.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive–motivational analysis. *Psychological Bulletin, 86*, 307–324.
- Brewer, M. B. (1988). A dual process model of impression formation. In K. T. Srull & R. S. Wyer, Jr. (Eds.), *Advances in social cognition* (Vol. 1, pp. 1–36). Hillsdale, NJ: Erlbaum.
- Brewer, M. B. (1996). When stereotypes lead to stereotyping: The use of stereotype in person perception. In C. N. Macrae, C. Stangor, & M. Hewstone (Eds.), *Stereotypes and stereotyping* (pp. 254–275). New York: Guilford Press.
- Brewer, M. B., Dull, V., & Lui, L. (1981). Perceptions of the elderly: Stereotypes as prototypes. *Journal of Personality and Social Psychology, 41*, 656–670.
- Bruner, J. S. (1957). On perceptual readiness. *Psychological Review, 64*, 123–152.

- Cadinu, M. R., & Rothbart, M. (1996). Self-anchoring and differentiation process in the minimal group setting. *Journal of Personality and Social Psychology, 70*, 661-677.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*, 752-766.
- Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997). Reinterpreting the empathy-altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology, 73*, 481-494.
- Cialdini, R. B., Schaller, M., Houlihan, D., Arps, K., Fultz, J., & Beaman, A. L. (1987). Empathy-based helping: Is it selflessly or selfishly motivated? *Journal of Personality and Social Psychology, 52*, 749-758.
- Clark, R. D., III, & Maass, A. (1988). Social categorization in minority influence: The case of homosexuality. *European Journal of Social Psychology, 18*, 347-364.
- Clore, G. L., & Jeffery, K. M. (1972). Emotional role playing, attitude change, and attraction toward a disabled person. *Journal of Personality and Social Psychology, 23*, 105-111.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology, 70*, 713-726.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*, 5-18.
- Devine, P. G. (1998). Beyond the isolated social perceiver: Why inhibit stereotypes? In R. S. Wyer, Jr. (Ed.), *Advances in social cognition: Vol. 11. Stereotype activation and inhibition* (pp. 69-81). Mahwah, NJ: Erlbaum.
- Devine, P. G., Monteith, M. J., Zuwerink, J. R., & Elliot, A. J. (1991). Prejudice with and without compunction. *Journal of Personality and Social Psychology, 60*, 817-830.
- Dovidio, J. F., Allen, J. L., & Schroeder, D. A. (1990). The specificity of empathy-induced altruism: Evidence of altruistic motivation. *Journal of Personality and Social Psychology, 59*, 249-260.
- Duncan, B. L. (1976). Differential social perception and attribution of intergroup violence: Testing the lower limits of stereotyping of blacks. *Journal of Personality and Social Psychology, 34*, 590-598.
- Esses, V. M., & Zanna, M. P. (1995). Mood and the expression of ethnic stereotypes. *Journal of Personality and Social Psychology, 69*, 1052-1068.
- Fazio, R. H. (1990). A practical guide to the use of response latency in social psychological research. In C. Hendrick & M. Clark (Eds.), *Research methods in personality and social psychology. Review of personality and social psychology* (Vol. 11, pp. 74-97). Newbury Park, CA: Sage.
- Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology, 69*, 1013-1027.
- Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through negative evaluations of others. *Journal of Personality and Social Psychology, 73*, 31-44.
- Fiske, S. T., Bersoff, D. N., Borgida, E., Deaux, K., & Helman, M. E. (1991). Social science research on trial: The use of sex stereotyping research in *Price Waterhouse v. Hopkins*. *American Psychologist, 46*, 1049-1060.
- Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology, 57*, 239-249.
- Galinsky, A. D. (1999a). *Perspective taking: Debiasing social thought*. Unpublished doctoral dissertation, Princeton University.
- Galinsky, A. D. (1999b). *The benefits and limits of perspective taking in decreasing the solicitation of expectancy-consistent information*. Manuscript submitted for publication.
- Galinsky, A. D., & Moskowitz, G. B. (1999). *Stereotype suppression and perspective-taking in debiasing social thought: The role of stereotype and counterstereotype accessibility*. Manuscript submitted for publication.
- Gilbert, D. T., & Hixon, J. G. (1991). The trouble of thinking: Activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology, 60*, 509-517.
- Gollwitzer, P. M., Schaal, B., Moskowitz, G. B., Hammelbeck, H. J. P., & Wasel, W. (1999). *Implementation effects on stereotype and prejudice activation*. Manuscript submitted for publication.
- Hamilton, W. D. (1964). The genetic evolution of social behavior. *Journal of Theoretical Biology, 7*, 1-52.
- Higgins, E. T. (1989). Knowledge accessibility and activation: Subjectivity and suffering from unconscious sources. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 75-123). New York: Guilford Press.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). New York: Guilford Press.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 1-41). San Diego, CA: Academic Press.
- Howard, J. W., & Rothbart, M. (1980). Social categorization and memory for in-group and out-group behavior. *Journal of Personality and Social Psychology, 38*, 301-310.
- Jones, E. E., & Nisbett, R. E. (1971). *The actor and the observer: Divergent perceptions of the causes of behavior*. Morristown, NJ: General Learning Press.
- Kawakami, K., Dion, K. L., & Dovidio, J. F. (1998). *Kicking the habit: The effects of suppression training on stereotype activation*. Unpublished manuscript, University of Nijmegen, the Netherlands.
- Kohlberg, L. (1976). Moral stages and moralization: The cognitive-developmental approach. In T. Lickona (Ed.), *Moral development and behavior* (pp. 31-53). New York: Holt, Rinehart & Winston.
- Lepore, L., & Brown, R. (1997). Category and stereotype activation: Is prejudice inevitable? *Journal of Personality and Social Psychology, 72*, 275-287.
- Locksley, A., Ortiz, V., & Hepburn, C. (1980). Social categorization and discriminatory behavior: Extinguishing the minimal intergroup discrimination effect. *Journal of Personality and Social Psychology, 39*, 773-783.
- Macrae, C. N., Bodenhausen, G. V., & Milne, A. B. (1995). The dissection of selection in person perception: Inhibitory processes in social stereotyping. *Journal of Personality and Social Psychology, 69*, 397-407.
- Macrae, C. N., Bodenhausen, G. V., & Milne, A. B. (1998). Saying no to unwanted thoughts: Self-focus and the regulation of mental life. *Journal of Personality and Social Psychology, 74*, 578-589.
- Macrae, C. N., Bodenhausen, G. V., Milne, A. B., & Jetten, J. (1994). Out of mind but back in sight: Stereotypes on the rebound. *Journal of Personality and Social Psychology, 67*, 808-817.
- Macrae, C. N., Bodenhausen, G. V., Milne, A. B., Thorn, T. M. J., & Castelli, L. (1997). On the activation of social stereotypes: The moderating role of processing objectives. *Journal of Experimental Social Psychology, 33*, 471-489.
- Macrae, C. N., Bodenhausen, G. V., Milne, A. B., & Wheeler, V. (1996). On resisting the temptation for simplification: Counterintentional effects of stereotype suppression on social memory. *Social Cognition, 14*, 1-20.
- Monteith, M. J. (1993). Self-regulation of prejudiced responses: Implications for progress in prejudice-reduction efforts. *Journal of Personality and Social Psychology, 65*, 469-485.

- Monteith, M. J., Spicer, C. V., & Tooman, G. D. (1998). Consequences of stereotype suppression: Stereotypes on AND not on the rebound. *Journal of Experimental Social Psychology, 34*, 355-377.
- Monteith, M. J., & Voils, C. I. (in press). Exerting control over prejudiced responses. In G. B. Moskowitz (Ed.), *Cognitive social psychology: On the tenure and future of social cognition*. Hillsdale, NJ: Erlbaum.
- Moskowitz, G. B. (1996). The mediational effects of attributions and information processing in minority social influence. *British Journal of Social Psychology, 35*, 47-66.
- Moskowitz, G. B. (in press). On preconscious control: Compensatory cognition and the implicit regulation of goal pursuit. In G. B. Moskowitz (Ed.), *Cognitive social psychology: On the tenure and future of social cognition*. Hillsdale, NJ: Erlbaum.
- Moskowitz, G. B., Gollwitzer, P. M., Wasel, W., & Schaal, B. (1999). Preconscious control of stereotype activation through chronic egalitarian goals. *Journal of Personality and Social Psychology, 77*, 167-184.
- Neuberg, S. L., Cialdini, R. B., Brown, S. L., Luce, C., Sagarin, B. J., & Lewis, B. P. (1997). Does empathy lead to anything more than superficial helping? Comment on Batson et al. (1997). *Journal of Personality and Social Psychology, 73*, 510-516.
- Neuberg, S. L., & Fiske, S. T. (1987). Motivational influences on impression formation: Outcome dependency, accuracy-driven attention, and individuating processes. *Journal of Personality and Social Psychology, 53*, 431-444.
- Otten, S., & Moskowitz, G. B. (2000). Evidence for implicit evaluative in-group bias: Affect-biased spontaneous trait inference in a minimal group paradigm. *Journal of Experimental Social Psychology, 36*, 77-89.
- Otten, S., & Wentura, D. (1998). *About the impact of automaticity in the minimal group paradigm: Evidence from an affective priming task*. Unpublished manuscript.
- Perdue, C. W., & Gurtman, M. B. (1990). Evidence for the automaticity of ageism. *Journal of Experimental Social Psychology, 26*, 199-216.
- Pettigrew, T. F. (1979). The ultimate attribution error: Extending Allport's cognitive analysis of prejudice. *Personality and Social Psychology Bulletin, 5*, 461-476.
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 123-205). New York: Academic Press.
- Piaget, J. (1932). *The moral judgment of the child*. London: Kegan, Paul, Trench & Trubner.
- Regan, D. T., & Totten, J. (1975). Empathy and attribution: Turning observers into actors. *Journal of Personality and Social Psychology, 32*, 850-856.
- Richardson, D. R., Hammock, G. S., Smith, S. M., Gardner, W., & Signo, M. (1994). Empathy as a cognitive inhibitor of interpersonal aggression. *Aggressive Behavior, 20*, 275-289.
- Ross, L., Lepper, M. R., & Hubbard, M. (1975). Perseverance in self-perception and social perception: Biased attributional processes in the debriefing paradigm. *Journal of Personality and Social Psychology, 32*, 880-892.
- Sherif, M. (1966). *Group conflict and co-operation: Their social psychology*. London: Routledge & Kegan Paul.
- Sherman, J. W., Stroessner, S. J., Loftus, S. T., & Deguzman, G. (1997). Stereotype suppression and recognition memory for stereotypical and nonstereotypical information. *Social Cognition, 15*, 205-215.
- Smith, E. R., Coats, S., & Walling, D. (1999). Overlapping mental representations of self, in-group, and partner: Further response time evidence and a connectionist model. *Personality & Social Psychology Bulletin, 25*, 873-882.
- Smith, E. R., & Henry, S. (1996). An in-group becomes part of the self: Response time evidence. *Personality & Social Psychology Bulletin, 22*, 635-642.
- Spencer, S. J., Fein, S., Wolf, C. T., Hodgson, H. L., & Dunn, M. A. (1998). The automatic activation of stereotypes: The role of self-image threat. *Personality and Social Psychology Bulletin, 24*, 1139-1152.
- Stangor, C., & Lange, J. (1994). Mental representations of social groups: Advances in understanding stereotypes and stereotyping. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 26, 357-416). San Diego, CA: Academic Press.
- Storms, M. D. (1973). Videotape in the attribution process: Reversing actors' and observers' points of view. *Journal of Personality and Social Psychology, 27*, 165-175.
- Stotland, E. (1969). Exploratory studies in empathy. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 271-313). San Diego, CA: Academic Press.
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behavior. *European Journal of Social Psychology, 1*, 149-178.
- Taylor, D. M., & Jaggi, V. (1974). Ethnocentrism and causal attribution in a South Indian context. *Journal of Cross-Cultural Psychology, 5*, 162-171.
- Tetlock, P. E., Skitka, L., & Boettger, R. (1989). Social and cognitive strategies for coping with accountability: Conformity, complexity, and bolstering. *Journal of Personality and Social Psychology, 57*, 632-640.
- Thompson, L. (1993). The impact of negotiation on intergroup relations. *Journal of Experimental Social Psychology, 29*, 304-325.
- Turner, J. C. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Basil Blackwell.
- von Hippel, W., Sekaquaptewa, D., & Vargas, P. (1995). On the role of encoding processes in stereotype maintenance. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 26, pp. 177-254). San Diego, CA: Academic Press.
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review, 101*, 34-52.
- Wegner, D. M., Erber, R., & Bowman, R. E. (1993). *On trying not to be sexist*. Unpublished manuscript.
- Wegner, D. M., Schneider, D. J., Carter, S., III., & White, L. (1987). Paradoxical effects of thought suppression. *Journal of Personality and Social Psychology, 58*, 409-418.
- Wegner, D. M., & Wenzlaff, R. M. (1996). Mental control. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 466-492). New York: Guilford Press.
- Wilder, D. A. (1978). Reduction of intergroup discrimination through individuation of the out-group. *Journal of Personality and Social Psychology, 36*, 1361-1374.
- Wilder, D. A. (1986). Social categorization: Implications for creation and reduction of intergroup bias. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 293-355). San Diego, CA: Academic Press.
- Word, H. H., Zanna, M. P., & Cooper, J. (1974). The nonverbal mediation of self-fulfilling prophecies in interracial interaction. *Journal of Experimental Social Psychology, 10*, 109-120.
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology, 73*, 73-90.
- Wyer, N. A., Sherman, J. W., & Stroessner, S. J. (1998). The spontaneous suppression of racial stereotypes. *Social Cognition, 16*, 340-352.
- Wyer, N. A., Sherman, J. W., & Stroessner, S. J. (2000). The roles of motivation and ability in controlling the consequences of stereotype suppression. *Personality and Social Psychology Bulletin, 26*, 13-25.

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