

## Consequences of Stereotype Suppression: Stereotypes on AND Not on the Rebound

Margo J. Monteith, Clarence V. Spicer, and Gregory D. Tooman

*University of Kentucky*

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Past findings suggest that attempts to control stereotypic thinking result in a "rebound effect" (i.e., a paradoxical increase in stereotypic thoughts and responses following stereotype suppression attempts). The present research examined boundary conditions to stereotype rebound effects in the context of stereotypes of social groups for which there were personal and social concerns over the use of stereotypes. Two experiments revealed that participants (Ps) with low-prejudice attitudes toward gays were not prone to the rebound effect when it was assessed using an overt measure of stereotype use (Experiment 1) or in terms of stereotype accessibility (Experiment 2). High-prejudice Ps also did not show rebound when it was measured in terms of stereotype application, presumably due to salient social norms censuring stereotype use. However, stereotype suppression did result in a subsequent hyperaccessibility of stereotypes among the high-prejudice Ps. © 1998 Academic Press

The power of stereotypes in shaping impressions, judgments, evaluations, and behaviors has been demonstrated repeatedly in the social psychological literature. Classic works (Allport, 1954; Lippmann, 1922) emphasized the functional utility of categorization and stereotyping for simplifying social perception. More recently, research has empirically established the energy-saving and efficiency-enhancing properties of stereotypes (Macrae, Milne, & Bodenhausen, 1994). Moreover, recent findings have underscored the spontaneous and automatic manner in which stereotypes can be activated and then applied when responding to others (Banaji & Greenwald, 1995; Banaji, Hardin, & Rothman, 1993; Banaji & Hardin, 1996; Devine, 1989; Gilbert & Hixon, 1991; Perdue, Dovidio, Gurtman, & Tyler, 1990). Such findings have logically led researchers to question

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Address correspondence and reprint requests to Margo J. Monteith, Department of Psychology, 115 Kastle Hall, University of Kentucky, Lexington, KY 40506-0044. E-mail: [mjm01@pop.uky.edu](mailto:mjm01@pop.uky.edu).

whether conscious intentions to avoid the use of stereotypes can possibly meet with success (Bargh, in press; Banaji et al., 1993).

If the process of stereotyping is as natural and spontaneous as research findings suggest, can well-intentioned individuals who wish to avoid the use of stereotypes possibly do so? Although some research suggests that conscious efforts to control stereotypic thinking may meet with success (Devine, 1989; Monteith, 1993; see also Blair & Banaji, 1996), other research has much less favorable implications regarding the consequences of attempted stereotype control. In particular, Macrae, Bodenhausen and their colleagues' recent research (Macrae, Bodenhausen, & Milne, 1998; Macrae, Bodenhausen, Milne, & Jetten, 1994; see also Bodenhausen & Macrae, 1996) suggests that conscious attempts to control prejudice may not meet with success and, even worse, may backfire—creating an increase in stereotypic thoughts and responses beyond the level apparent before any attempt at control was made. In other words, this research suggests that the more people try to control their stereotypic thinking, the more they will fail to do so.

The theoretical basis for Macrae and Bodenhausen's research is Wegner's (1994; Wegner & Erber, 1992) model of mental control. According to the model, two cognitive processes function simultaneously during suppression attempts. First, an operating process attempts to replace the unwanted thought with a distracter. This process is thought to be governed by controlled, intentional processing; conscious effort and deliberate processing is required to keep the mind focused on thoughts other than those that are unwanted. Second, an ironic monitoring process simultaneously searches consciousness for any indication of the unwanted thought (i.e., searches for failures of the operating process). Theoretically, this "checking" process operates automatically and continuously.

According to Wegner (1994), intentions to suppress thoughts will be successful as long as the operating process effectively generates distracters. However, if the operating process is disrupted (e.g., by imposing a cognitive load; Wegner, 1994) or if the intention to suppress is relaxed (Macrae, Bodenhausen, et al., 1994), the unwanted thoughts may "return with a vengeance." Macrae, Bodenhausen, et al. (1994) maintain that this is because the ironic monitoring process repeatedly primes the unwanted thought as it attempts to check for its presence. In this way, unwanted thoughts actually can become *hyperaccessible* and result in a "rebound effect," or an increase in the frequency of occurrence of the unwanted thought, relative to if no attempt had been made to suppress the unwanted thought in the first place (Wegner, Schneider, Carter, & White, 1987).

Macrae, Bodenhausen, et al. (1994) reported three experiments that demonstrated the increased accessibility of and reliance on stereotypes following people's efforts to suppress stereotypes. In all three experiments, participants first completed a task in which they either were or were not asked to suppress stereotypes of skinheads. Specifically, participants wrote passages describing a day in the life of a person shown in a photograph, and this person was a skinhead. Half of the participants were asked to avoid thinking about stereotypes while writing their paragraphs (suppress condition), whereas no special instructions

about avoiding stereotypic thoughts were given to the other half of the participants (control condition).

In all three experiments, the suppression instructions were effective, in that participants wrote less stereotypic paragraphs in the suppress condition than in the control condition. The consequences of such suppression were observed in the context of subsequent tasks. Specifically, in Experiment 1, participants were asked to write another paragraph about another skinhead, and this time they were given no special instructions about avoiding stereotypic thoughts. Macrae, Bodenhausen, et al.'s findings demonstrated a stereotype rebound effect: Participants in the suppress condition now wrote passages that were *even more* stereotypic than passages written by participants who had never suppressed stereotypes in the first place (i.e., than passages in the control condition). Once the instruction to suppress stereotypes was relaxed, stereotypic thoughts "flooded" participants' minds. In Experiment 2, Macrae, Bodenhausen, et al. found that the suppress instructions caused participants to maintain greater distance from a seat that supposedly would soon be occupied by a skinhead. Thus, the initial act of suppressing stereotypes later resulted in behavior that appeared to be strongly influenced by stereotypes—more so than the behavior of participants who had not initially suppressed stereotypes. Experiment 3 provided direct evidence that the rebound effects observed in the first two experiments likely resulted because the act of suppressing stereotypes served to prime them. Using a reaction time task, this experiment revealed that stereotypes of skinheads were more accessible among the participants who had initially suppressed stereotypes than among participants in the control condition.

Subsequent research (Macrae et al., 1998) was designed to determine whether stereotype rebound effects would be observed when the intention to suppress stereotypes is activated spontaneously by situational cues, rather than being activated directly through an experimenter's instructions. An initial set of studies demonstrated that participants constructed less stereotypical passages when they were experiencing high as opposed to low self-focus, presumably because heightened self-focus increased the salience of internalized standards suggesting that stereotyping was inappropriate (e.g., Carver, 1975). A subsequent study demonstrated the same reduction in stereotyping under conditions of high, relative to low, self-focus. It further established the paradoxical effects of such spontaneously induced stereotype suppression activity. That is, when participants who initially had experienced high self-focus while constructing a passage about a male hairdresser later constructed a second passage about another male hairdresser, but this time under low self-focus, their second passages were highly stereotypical (i.e., a stereotype rebound effect was observed).

Macrae and Bodenhausen's findings have led them to question just how effective attempts to control stereotypic thinking will be in the long run. The dilemma, as summarized by Macrae, Bodenhausen, et al. (1994) is that "Although benefits are clearly to be accrued through the instigation of these inhibitory [i.e., stereotype suppression] mechanisms, most notably in the form of

a reduction in stereotyping and prejudice, the picture may not be as clear-cut as it first appears. . . . Once inhibitory mechanisms are relaxed, perceivers demonstrate a pervasive preoccupation with the formerly unwanted thought, with all the pernicious implications that this entails for their ensuing cognitions and behavior" (pp. 813-814).

## POSSIBLE LIMITATIONS TO THE STEREOTYPE REBOUND EFFECT

There may be qualifications to stereotype rebound effects that are related to the types of stereotyped groups targeted in stereotype suppression research to date (see also Monteith et al., 1998). Specifically, Macrae, Bodenhausen and their colleagues (Macrae, Bodenhausen, et al., 1994; Macrae, Bodenhausen, Milne, & Wheeler, 1996; Macrae et al., 1998) have examined the consequences of stereotype suppression in connection with social groups for which there are not strong personal and social norms against stereotyping (e.g., skinheads, male construction workers, yuppies, and politicians).<sup>1</sup> Such groups differ in important ways from other groups for which there are much stronger personal and social concerns over the application of stereotypes. For example, although individuals may feel that, in general, they should not stereotype others, it is not as likely that they will hold well-internalized personal beliefs against stereotyping skinheads or yuppies as it is that such beliefs will exist in relation to stereotyping other groups (e.g., Blacks or gays). Likewise, social norms against stereotyping skinheads or yuppies are not nearly as forceful as the norms against stereotyping certain other groups.

When individuals are instructed to suppress stereotypes in relation to groups for which they have either personal or social concerns about stereotyping, a subsequent rebound of stereotypes may not occur. Consider first the situation in which individuals have personal concerns over stereotype use because their own low-prejudice attitudes suggest that stereotyping is inappropriate. Among such low-prejudice individuals, stereotype activation itself may not occur (Lepore & Brown, 1997; Wittenbrink, Judd, & Park, 1997), so that the suppression-rebound cycle might be skirted entirely. Another possibility is that stereotypes initially come to mind among low-prejudice individuals but, as explained below, these people nevertheless are successful at avoiding stereotype rebound effects. This possibility requires some consideration, given findings that approximately 80% of low-prejudice individuals report that they are prone to having stereotypical feelings and thoughts (e.g., Devine, Monteith, Zuwerink, & Elliot, 1991; Monteith, Devine, & Zuwerink, 1993; Monteith, 1996a), presumably because well-learned stereotypic associations are automatically activated (Banaji et al., 1993; Banaji & Greenwald, 1995; Devine, 1989; Greenwald, McGhee, & Schwartz, in press).

Even if stereotypes do initially come to mind among people with low-prejudice

<sup>1</sup> Wegner, Erber, and Bowman (1993; reported in Wegner, 1994) did examine the effects of suppressing potentially more sensitive stereotypes (i.e., concerning women). However, there is some question as to whether their findings are consistent with a pattern of stereotype rebound (see Monteith, Sherman, & Devine, 1998).

attitudes, they may be successful at avoiding subsequent rebound effects for a variety of reasons. One important factor may be related to the psychological significance of having stereotypical thoughts among low-prejudiced persons. Although low-prejudice individuals are prone to stereotypical reactions, they are highly motivated to avoid such reactions, and they experience feelings of guilt when they fail to do so (Devine et al., 1991; Monteith et al., 1993; Monteith, 1993, 1996a, 1996b). According to Kelly and Kahn (1994), the suppression of personally unacceptable thoughts that one is motivated to avoid can occur without later resulting in rebound. In Kelly and Kahn's research, participants were asked to suppress and then express their "most frequently occurring intrusive thought" or to express and then suppress such thoughts. Frequency of occurrence of the intrusive thought was measured during all suppression and expression periods. If suppression of intrusive thoughts produces rebound, such thoughts should be expressed more frequently if they were suppressed first, relative to if they were expressed first. However, Kelly and Kahn found that the intrusive thoughts were expressed with the same frequency, regardless of whether they were initially suppressed or expressed. Thus, even if stereotypes are activated among low-prejudice individuals, they may be successful at suppressing them because of their personally intrusive nature.

Another factor that appears to enable individuals to avoid rebound effects is having a ready replacement for unwanted thoughts on which to concentrate. For example, the original "white bear" suppression research conducted by Wegner et al. (1987) demonstrated that participants who were asked to think about a red Volkswagen instead of a white bear after suppressing thoughts about a white bear showed no evidence of increased preoccupation with the initially suppressed (white bear) thoughts. (See Wegner, 1994, and Wegner & Wenzlaff, 1996, for more recent discussions of the effects of concentrating on alternatives to the to-be-suppressed thoughts.) Thus, even if stereotypes are activated and then suppressed among low-prejudice individuals, they may be able to avoid stereotype rebound by using their egalitarian beliefs as replacements for stereotypic thoughts (Devine, 1989; Devine & Monteith, 1993; Monteith, 1993).

In contrast to low-prejudice individuals, high-prejudice individuals' initial suppression of stereotypic thoughts may well be associated with a subsequent rebound effect. Stereotypes are easily activated among high-prejudice individuals (e.g., Lepore & Brown, 1997), and high-prejudice individuals experience little motivation to control their stereotypic reactions (e.g., Devine et al., 1991; Monteith, 1993; Monteith & Walters, 1998). Furthermore, because their personal beliefs are so strongly stereotypic (Devine, 1989; Devine & Elliot, 1995), high-prejudice individuals are left without ready replacements for stereotypic thoughts when they attempt to suppress such thoughts.

However, even among high-prejudice persons, suppression-activated stereotypes may not inevitably be applied if social norms prevent rebound in the form of stereotype application. More specifically, if there are strong social norms against stereotyping a particular group, those norms may remain salient beyond the initial

suppression period and continue to encourage a suppression of stereotypic responses. Indeed, previous research has established that norms against expressions of prejudice toward Blacks and gays are easily activated (at least on college campuses) and influence expressions of high-prejudice persons' prejudiced sentiments (Monteith, Deneen, & Tooman, 1996). Thus, unlike the situation for skinheads and other groups used in past stereotype suppression research, initial instructions to suppress stereotypes may activate social norms that ultimately serve to prevent stereotype rebound in terms of stereotype application.

In sum, there may be important boundary conditions to suppression-induced stereotype rebound both in terms of the activation and the subsequent application of stereotypes. Among low-prejudice individuals, stereotypes may not be activated in the first place or, even if they are, other factors (such as strong motivation and the availability of egalitarian replacement thoughts) may make rebound unlikely. More specifically, instructions to suppress stereotypes may not result in heightened accessibility of stereotypic thoughts or in a subsequent increased propensity to respond in stereotypic ways. Although the suppression of stereotypes among high-prejudice individuals is likely to cause stereotypes to become hyperaccessible, activated constructs need not be subsequently applied (Sedikides, 1990; Thompson, Roman, Moskowitz, Chaiken, & Bargh, 1994). Therefore, to the extent that an initial instruction to suppress stereotypes results in an increased and prolonged salience of social norms against stereotyping, rebound may not be observed in terms of stereotype application even among high-prejudice persons.

We conducted two experiments to test these predictions. Experiment 1 was designed to examine whether a period in which participants were initially instructed to suppress stereotypes was followed by a subsequent rebound of stereotypic responses (i.e., increased stereotype application) among low- and high-prejudice individuals. Experiment 2 investigated whether ironic consequences occurred in terms of stereotype accessibility, rather than stereotype application, among low- and high-prejudice individuals.

## EXPERIMENT 1

Experiment 1 was designed to replicate Macrae, Bodenhausen, et al.'s (1994, Experiment 1) procedure using a stereotyped group for which there are potentially strong personal and social norms against stereotyping, rather than using skinheads as the stereotyped group. Specifically, gay men served as the target group, and we identified participants who had either low- or high-prejudice attitudes toward gays. Following Macrae et al., participants were given a picture of a gay male couple and were asked to write a passage about a typical day in the life of this couple under either suppress or control instructions. Then participants wrote another passage about another gay couple, and this time all subjects were simply told to use their imagination while writing the passage.

We expected that the low-prejudice participants would not include stereotypes in their first passage, regardless of whether they were in the suppress or control condition, because their personal beliefs suggest that such content is inappropri-

ate. If the lack of stereotypic content reflects suppression efforts at work and this suppression has the unfortunate consequence of priming stereotypic thoughts, the second passages participants write should be more stereotypical than the first. However, if our expectation that the low-prejudice participants would not show the typical stereotype rebound effect are supported, the second passages should be just as nonstereotypic as the first. Our predictions for high-prejudice participants were somewhat different. Because these individuals do not have strong personal objections to using stereotypes, but presumably will abide by instructions to suppress stereotypes when they are given, we expected the first passages written by high-prejudice participants to be more stereotypic in the control than in the suppression condition. Because an initial suppression of stereotypes is likely to prime stereotypes among our high-prejudice participants, we may observe the same pattern of rebound for the second passages as Macrae, Bodenhausen, et al. (1994) found. However, if the initial instruction to suppress stereotypes makes social norms against stereotyping gays salient, and these norms continue to be salient even after the experimenter's suppression instructions are relaxed, participants who initially suppressed stereotypes may not be any more likely than those in the control condition to use stereotypes in the passages they construct.

## Method

### *Participants*

Ninety-seven Introductory Psychology students who were heterosexual and who had either low- or high-prejudice attitudes toward gays participated for research credit. Prejudice level was determined based on responses to the Heterosexual Attitudes Toward Homosexuals (HATH) scale (Larsen, Reed, & Hoffman, 1980), which has a possible range of 20–140. In the present experiment, scores between 20 and 60 were defined as low-prejudice, and scores between 100 and 140 were defined as high-prejudice (i.e., the bottom and top thirds of the possible HATH distribution). Approximately equal numbers of males and females were either low or high in prejudice.

Participants' HATH scores were determined in one of two ways. Some of the participants ( $n = 62$ ) completed the HATH at the conclusion of the experiment (explained in greater detail below). After this initial data collection phase, other participants ( $n = 35$ ) were preselected for participation based on their HATH scores from a mass survey, so as to ensure that an approximately equal number of low- and high-prejudice male and female participants were in each of the experimental conditions. The method used to determine prejudice level did not affect the obtained results.

### *Design*

A 2 (Instruction: control versus suppress)  $\times$  2 (Prejudice Level: low versus high)  $\times$  2 (Gender)  $\times$  2 (Passage: first versus second) mixed model design was used, with repeated measures on the last factor only. Participants were assigned to one of the Instruction conditions based on random assignment, and the experimenter was kept blind to their prejudice levels.

### *Materials and Procedure*

Participants completed the experiment individually. They were informed that the study constituted pilot research aimed at obtaining a general idea of people's perceptions of different types of romantic relationships, and the results would be used to suggest directions for more specific research studies to be conducted in the future. After signing a consent form, the experimenter explained that there are many different types of couples: Some are the traditional opposite-sex, same-age couples, and other couples are more nontraditional, such as those of very different ages, interracial couples, and gay and

lesbian couples. Participants saw that the experimenter had twelve pictures of various couples, and each picture was marked with a number between 1 and 12. The experimenter explained that there was not time for participants to consider all of the couples, so a procedure for randomly determining the couples to be considered by a given participant was being used. Then participants chose a chip from a bag that was marked with a number that matched one of the numbers on the pictures. The experimenter explained that he/she was supposed to be blind to which picture participants "chose," and the experimenter had participants locate the appropriate picture while he/she was turned away. Although participants believed that the chips were marked with a number between 1 and 12, in actuality all of the chips were marked with a number that corresponded to a picture of a gay male couple.

The experimenter then instructed participants to imagine a typical day in the life of the couple, and to spend 5 minutes writing a passage describing the details of the day, such as activities the members of the couple might do together or individually. Following Macrae, Bodenhausen, et al. (1994), participants in the suppress instruction condition were told that "Psychological research has established that our impressions and evaluations of others are consistently biased by stereotypes. So, you should actively try to avoid thinking about the target couple in stereotypic ways." No such instructions were given to participants in the control instruction condition. All participants were informed that they would place their passage through a slot of a closed box when finished, so that their responses would remain anonymous. The experimenter explained that he/she would return after 5 minutes.

After the first passage-writing task, participants chose another couple to write about through the supposedly random procedure described above. The procedure was rigged so that all participants chose another gay male couple. (The order of presentation of the couples was counterbalanced across participants.) This time, the experimenter simply emphasized that participants should use their imagination when writing their passage, and no mention of stereotypic thinking was made in either the suppress or control condition.

Participants who had been preselected were questioned with the aim of ensuring that they had believed the cover story, debriefed, and dismissed after the second passage-writing task. However, when preselection had not been used, the experimenter explained that participants would complete a variety of questionnaires concerning their own perceptions of romantic relationships. Participants were given the first questionnaire, the Love Attitudes Scale (Hendrick & Hendrick, 1989), which was included merely to support the cover story. The experimenter instructed participants to let him/her know when they had completed the scale and placed it in the slotted box. Then participants were given the second (and actually the last) questionnaire, which was the HATH.<sup>2</sup> After completing the HATH, participants were probed for suspicion, provided with a full explanation of the research, and dismissed.

## Results

### *Coding of Stereotypic Thoughts*

Participants' passages were examined for their stereotypical content by individuals who were blind to which passages corresponded to which experimental conditions. First, one of the authors and a research assistant examined the passages with the aim of generating an exhaustive list of stereotypes that appeared in the essays (e.g., "artsy" activities, stereotypically gay professions). Second, a

<sup>2</sup> We have suggested the possibility that the suppression instructions would result in the activation of social norms against stereotyping. Readers may wonder why these norms would not also affect responses to the HATH when it was completed at the conclusion of the experiment. There are several reasons to suspect that HATH responses would not be affected. First, the stereotype suppression instructions were provided in the context of responses to the passage writing task, and not in the context of completing the HATH. Second, the HATH instructions encouraged participants to be completely open and honest in their responses. Third, the HATH assesses fairly stable and global attitudes that Monteith, Deneen, and Tooman (1996) found were not affected by the activation of social norms against prejudice.

judge parsed the passages into thought units (i.e., any complete thought was counted as one unit) and coded each unit according to whether it reflected one of the stereotypes.<sup>3</sup> Another judge coded 15% of the passages, and interjudge agreement (computed as the proportion of agreements) was found to be acceptably high (.95).<sup>4</sup>

### *Instructions Manipulation Check*

We initially examined the first passages written by participants to determine whether they had abided by the experimenter's instructions to avoid stereotypical thoughts in the suppress condition. Thus, a  $2 \times 2 \times 2$  ANOVA was performed on the proportion of stereotypic thoughts (i.e., number of stereotypic thoughts divided by total thought units) expressed in Passage 1. The between-subject factors were prejudice level, instruction condition, and gender. The analysis revealed a significant main effect for instruction,  $F(1, 89) = 5.46, p < .03$ . As would be expected given the instructions participants received, participants in the suppress condition included fewer stereotypes in their passages ( $M = .09$ ) than did participants in the control condition ( $M = .14$ ). In addition, the main effect for prejudice was significant, such that low-prejudice participants included fewer stereotypic thoughts in their passages ( $M = .06$ ) than high-prejudice participants ( $M = .18$ ),  $F(1, 89) = 16.89, p < .001$ . The interaction between prejudice and instructions approached significance,  $F(1, 89) = 2.64, p = .10$ . This effect suggested a tendency for low-prejudice participants' passages to include little stereotypic content regardless of their instructions condition (control  $M = .07$ , suppress  $M = .05$ ), but high-prejudice participants' passages included greater stereotypic content in the control condition ( $M = .24$ ) than in the suppress condition ( $M = .11$ ).

<sup>3</sup> To determine whether participants wrote more or less depending on their experimental condition, a  $2 \times 2 \times 2 \times 2$  mixed model ANOVA was performed on the number of idea units, treating prejudice, instruction condition, and gender as between-subject factors and passage (first versus second) as a within-subject factor. The only significant effect was a Condition  $\times$  Passage interaction,  $F(1, 89) = 6.05, p < .02$ . Control participants' first passages had slightly more idea units ( $M = 10.05$ ) than suppress participants' first passages ( $M = 9.65$ ), whereas the reverse pattern was obtained for the second passages ( $M_s = 9.67$  and  $9.90$  for the control and suppress groups, respectively). Post hoc comparisons revealed that none of these comparisons was statistically significant. A parallel analysis performed in relation to the passages in Experiment 2 revealed no significant effects.

<sup>4</sup> Macrae, Bodenhausen, et al.'s (1994) measure of the stereotypicality of the passages consisted of the average of two judges' ratings on a scale ranging from 1 (not at all stereotypical) to 9 (very stereotypical). Although we also employed this strategy in Experiment 1, we prefer and report the content analysis method and results for two reasons. First, theoretical interest lies in the frequency of stereotypical thoughts, which can be most directly assessed with an actual count of the number of stereotypes used. Second, our judges found the task of making stereotypicality ratings to be ambiguous and difficult, and interjudge reliability was not acceptable. Nevertheless, when these ratings were analyzed, the same patterns as those reported in the text emerged, although significance levels differed.

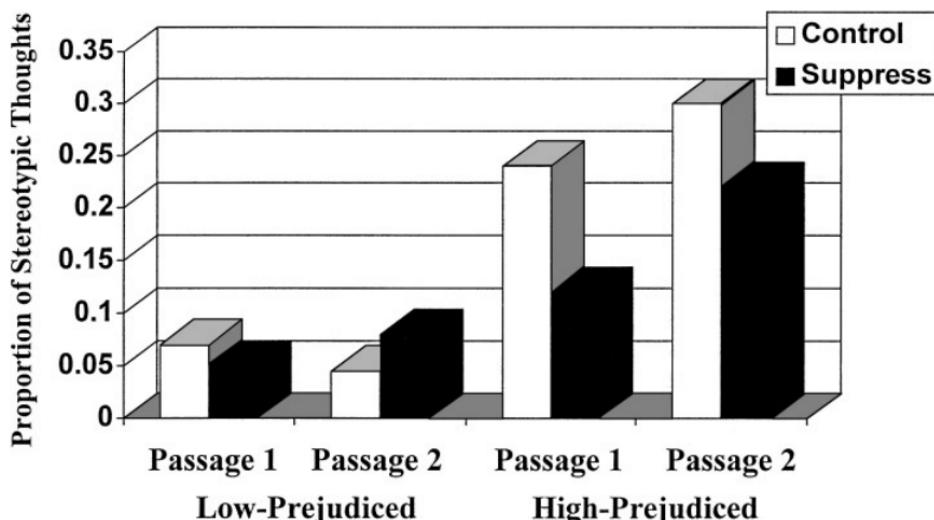


FIG. 1. Cell means for Proportion of Stereotypic Thoughts in Experiment 1.

### Testing for Stereotype Rebound

All cell means, collapsing across gender, are shown in Fig. 1. A  $2 \times 2 \times 2 \times 2$  mixed model ANOVA was performed on the proportion of stereotypic thoughts, treating prejudice, instruction condition, and gender as between-subject factors, and passage (first or second written) as a within-subject factor. The analysis revealed several significant effects. First, high-prejudice participants' passages included considerably more stereotypical content ( $M = .22$ ) than did passages written by low-prejudice participants ( $M = .06$ ),  $F(1, 89) = 27.16, p < .001$ . Second, participants used more stereotypes in the second passage ( $M = .16$ ) than in the first ( $M = .12$ ),  $F(1, 89) = 6.10, p < .02$ . Third, a significant Prejudice Level  $\times$  Passage interaction was obtained,  $F(1, 89) = 4.74, p < .04$ . As can be seen in Fig. 2, very little stereotypical content was found in either passage written by low-prejudice participants, but high-prejudice participants used more stereotypes in Passage 2 than in Passage 1.

If the stereotype suppression instructions that were delivered in connection with the construction of Passage 1 had caused stereotypes to be on the rebound for Passage 2, significant effects involving the instruction manipulation should emerge. Importantly, none of the effects that would point to evidence of stereotype rebound was significant. First, the Passage  $\times$  Instruction interaction was not significant,  $F(1, 89) = 2.33, p = .13$ .<sup>5</sup> Thus, collapsing across prejudice level, we

<sup>5</sup> Readers who interpret this interaction as approaching significance should note that the pattern of means was not suggestive of a rebound effect. For the first passage, stereotype content was greater in the control ( $M = .16$ ) than in the suppress condition ( $M = .08$ ). For the second passage, stereotype content in the suppress condition ( $M = .15$ ) approached that of the control condition ( $M = .17$ ), but clearly did not surpass that of the control condition—as would be expected in the case of a stereotype rebound effect.

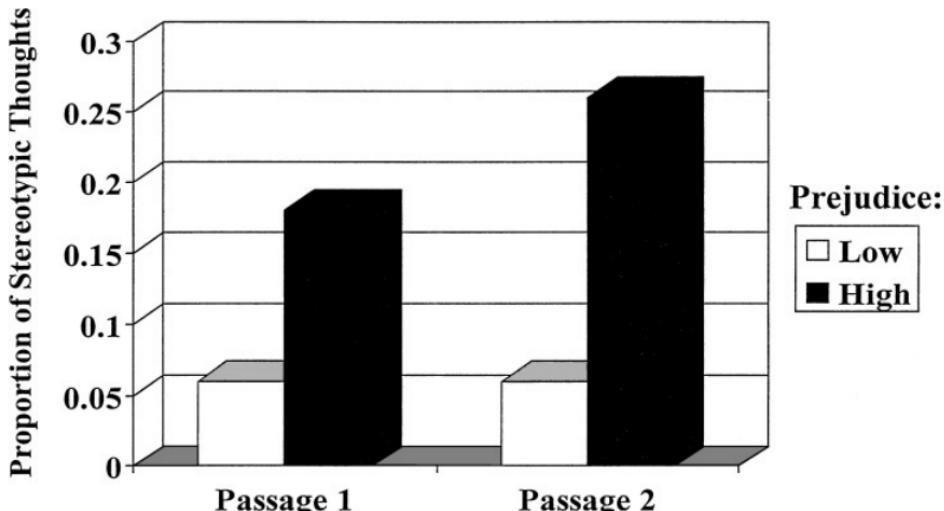


FIG. 2. Proportion of Stereotypic Thoughts as a Function of Prejudice Level and Passage in Experiment 1.

did not obtain evidence that Passage 2 was unusually stereotypic for participants in the suppression condition. Second, the Passage  $\times$  Instruction  $\times$  Prejudice Level interaction was negligible,  $F < 1$ , suggesting that stereotypes were not on the rebound even among the high-prejudice participants.

In sum, the findings point to a consistent, infrequent use of stereotypes among the low-prejudice participants. They were less likely to rely on stereotypes than were high-prejudice participants for both Passage 1 and 2 (see Fig. 2), and there was no evidence that instruction condition had a moderating effect. High-prejudice participants were more likely to rely on stereotypes for Passage 2 than 1, but again there was no evidence that participants who initially suppressed stereotypes were more likely to use them in Passage 2 than participants who had not initially suppressed stereotypes. These findings indicate that stereotypes were not on the rebound for low- or high-prejudice participants.

Two interactions involving gender also were obtained, although these interactions did not qualify the conclusions reached above. Specifically, an Instruction  $\times$  Gender interaction,  $F(1, 89) = 5.21, p < .03$ , was further qualified by an Instruction  $\times$  Gender  $\times$  Prejudice interaction,  $F(1, 89) = 6.74, p < .02$ . The pattern of means indicated that, regardless of gender or instruction condition, low-prejudice participants used equally few stereotypes in their passages (relevant cell means ranged from .05 to .07). Among high-prejudice participants, there was a greater difference between the control and suppress conditions for males ( $M_s = .35$  and  $.10$ , respectively) than for females ( $M_s = .24$  and  $.18$ , respectively).

We also performed analyses to determine whether there were systematic differences based on the type of stereotype content included in the passages. For example, perhaps the high-prejudice, suppress participants used especially nega-

tive stereotypes for Passage 2 (e.g., describing the couple as contracting AIDS versus describing them as having jobs as hairstylists), so that stereotype rebound occurred in terms of overall negativity rather than in terms of frequency of stereotype use. These analyses did not reveal any tendencies toward different stereotype content across the experimental conditions.

### Discussion

In contrast to Macrae, Bodenhausen, et al.'s (1994) findings, Experiment 1 provided no evidence of stereotypes being on the rebound. As expected, the low-prejudice participants simply did not include stereotypes in their passages, and they did not show evidence of rebound even when conditions favorable to the rebound effect were established. Also in contrast to Macrae, Bodenhausen, et al.'s findings, the high-prejudice participants did not show evidence of a rebound effect after suppressing stereotypic thoughts. While writing their first passage about a gay couple, these participants did refrain from their typical reliance on stereotypes when the experimenter instructed them to do so. However, this initial suppression did not have the consequence of increasing stereotype content in the second passage beyond the level observed in the control condition.

The pattern of findings for low-prejudice participants seems quite sensible. Stereotypes either may not be activated among low-prejudice participants, or—once activated—stereotypic thoughts may be suppressed without producing rebound (e.g., because such thoughts are personally intrusive, Kelly & Kahn, 1994, or because egalitarian thoughts can serve as replacements, Wegner et al., 1987). However, why did the high-prejudice participants fail to show the same rebound effect that Macrae, Bodenhausen, et al.'s (1994) participants exhibited?

Perhaps a ceiling effect can account for the findings. We are skeptical about this possibility, because there was plenty of "room" left in the passages for additional stereotypical content. Another possibility is that the initial instructions to suppress stereotypes activated social norms against the use of stereotypes in relation to gays. These norms appear to be quite strong on college campuses (Monteith et al., 1996), so that they may have remained salient during the second passage-writing task. Unlike the case when individuals are instructed to suppress the types of stereotypes typically used in stereotype suppression research (e.g., skinheads and male construction workers), when other groups about which there are strong social and political concerns over stereotyping are used, initial stereotype suppression may not inevitably result in a subsequent rebound of stereotypes. Indeed, perhaps even the low-prejudice participants experienced a rebound in stereotypic thoughts, but the deliberate and intentional nature of the passage-writing task enabled them to inhibit stereotypic responses based on such thoughts (Devine, 1989; Kruglanski & Freund, 1983).

Of course, we cannot determine whether any of the participants were suppressing stereotypes during the second passage-writing task based on the results of Experiment 1. The absence of a stereotype rebound effect does not establish that stereotypes were accessible but not used. Therefore, the next important question

to ask is whether the initial suppression of stereotypes does, in fact, increase the accessibility of stereotypes among low- and high-prejudice individuals.

## EXPERIMENT 2

### Method

#### *Participants*

The participants were 104 undergraduate, heterosexual students (20 male, 83 female, and 1 who failed to indicate his/her gender on the materials) who participated for research credit in their Introductory Psychology course. The participants were identified as being either low or high in prejudice toward gays based on their responses to the HATH (Larsen et al., 1980), which they completed during the context of the experiment (as explained below). Individuals with HATH scores less than 56 were defined as low-prejudice, and high-prejudice individuals were defined as those with HATH scores greater than 83. These groupings reflect the lower and upper thirds, respectively, of the obtained HATH distribution.

#### *Design*

A 2 (Instruction: control versus suppress)  $\times$  2 (Prejudice Level: low versus high)  $\times$  2 (Order: HATH completed before or after the key experimental tasks) between-subjects design was used. Participants were randomly assigned to the Instruction and Order conditions.

#### *Procedure*

Between 10 and 12 participants completed the experiment at a time. Upon entering the laboratory, participants were given a consent form to read and sign. They were told that they would be involved in two unrelated studies that were being sponsored by two different researchers who were sharing the time slot. (It is not uncommon for researchers to share time slots at the present University.) All participants completed several tasks, although the order in which these tasks were completed varied depending on the order condition to which participants had been assigned. Participants recorded the last six digits of their student identification number on all of the materials they completed throughout the experiment, so that data from the various tasks later could be appropriately identified as being from a given participant.

*“Before” condition.* Participants in the “before” condition were initially given a battery of questionnaires concerning “various social and political issues.” The HATH was included in the questionnaire packet. After everyone had completed their questionnaires, the experimenter departed and a different experimenter entered.

The next two experimental activities constituted the stereotype suppression and accessibility tasks. As in Experiment 1, participants were asked to write an essay about a gay couple under either suppress or control instructions. The cover story was modified slightly from that of Experiment 1, this time emphasizing that the research concerned imagination and creativity in writing tasks. The experimenter explained that everyone would be given a folder with a picture of a couple in it, although different people would have pictures of different types of couples. In fact, all participants received a picture of the same gay couple. The experimenter explained that participants should spend 5 minutes writing a passage that described a typical day in the life of the couple. The instructions provided in the suppress and control condition were identical to the instructions provided in Experiment 1.

After the passage-writing task, the experimenter indicated that participants now would complete a word-recall task. The experimenter explained that this task was designed to assess short-term memory capacity among college students, who—“due to their mature level of cognitive development and their frequent use of long-term memory”—might be expected to perform especially well on short-term memory tasks. In actuality, this task served to measure stereotype accessibility. Participants were shown a series of nine lists of words, presented in a fixed order across participants. Each list included 10 words, and each list was projected for 6 s on a screen at the front of the room. On the first trial, none of the words was stereotypical. However, on the remaining eight trials, two words (always in the fourth

and sixth positions in the list) were related to stereotypes of gays. The 16 words used were: disease, artistic, disgust, feminine, rejected, sexual, unnatural, hairstylist, immoral, designer, harassed, neat, promiscuous, activist, sinful, and fashion. After each list was presented, participants were given 45 s to write down as many of the words as they could recall. Our reasoning was that, if the stereotype suppression task served to prime stereotypes, encoding and retrieval of the stereotypic words should be enhanced (Fyock & Stangor, 1994; Macrae et al., 1996).

Following the recall task, participants were asked to write a sentence or two describing their reactions to the recall task and the words that were included in that task. These were examined later to ensure that no participants realized the connection between the two portions of the experiment or that some of the words were stereotypes of gays (see footnote 7). Participants then completed a task that was designed to determine whether the 16 stereotype words included in the recall tasks actually were perceived to be part of the cultural stereotype by our participants. The experimenter explained that some people in the experiment had previously been given a picture of a gay couple to write about and that cultural stereotypes might affect what they wrote. Thus, the experimenter explained that he was interested in learning about what people perceive the cultural stereotype of gay men to be. Participants then were given a "stereotype knowledge" form, and they were asked to indicate the extent to which 35 characteristics or traits (including the 16 words from the stereotype recall task) were part of the cultural stereotype of gay men. Responses were made using a scale ranging from 1 (not at all part of the stereotype) to 7 (very much part of the stereotype). The instructions emphasized that we were not interested in the extent to which participants believed the stereotypes to be accurate, but rather in how much each trait seemed to be part of what is generally considered to be the stereotype of gay males within our society.

*"After" condition.* Participants in the after condition completed the stereotype suppression and accessibility tasks first, following the same procedure that was described above. Then the first experimenter departed and a second experimenter arrived to administer the battery of "social and political questionnaires" that included the HATH scale. The final form in this packet was the stereotype knowledge questionnaire.

*Appended "neutral passage" control condition.* Given the possibility that writing a passage about a gay couple might increase the accessibility of stereotypes among low- and high-prejudice participants alike, we collected control data from an additional 19 individuals. These participants were asked to write a passage describing their last vacation, after which they completed the word-recall task.

## Results

All analyses were first performed including Order (HATH completed before versus after the other experimental tasks) as a factor. Overall, this factor had little effect, and we collapsed across it for reported analyses when it was not associated with any significant effects. There were too few male participants to include gender as a factor in the analyses.

### *Coding of Stereotypic Thoughts*

As in Experiment 1, the essays were parsed into thought units and each unit was coded for its stereotypic content. A second judge coded a random 15% of the passages, and the proportion of agreements (.93) was found to be acceptably high.

### *Instructions Manipulation Check*

A 2 (Instruction: suppress versus control)  $\times$  2 (Prejudice Level: low versus high) between-subjects ANOVA was performed on the proportion of stereotypic thoughts (i.e., number of stereotypic thoughts divided by total thought units). This analysis revealed significant main effects for Instruction (control  $M = .20$ ;

suppress  $M = .11$ ) and Prejudice Level (low-prejudice  $M = .09$ ; high-prejudice  $M = .22$ ),  $Fs(1, 103) = 6.38$  and  $11.50$ , respectively,  $ps < .01$ . These main effects were qualified by a significant Instruction  $\times$  Prejudice Level interaction,  $F(1, 100) = 4.89$ ,  $p < .03$ . High-prejudice participants in the suppress condition included significantly fewer stereotypes in their passages ( $M = .13$ ) than did high-prejudice participants in the control condition ( $M = .30$ ). In contrast, low-prejudice participants' passages included little stereotypic content, regardless of whether these participants were in the suppress or control condition ( $Ms = .09$  and  $.10$ , respectively).

### *Testing For Stereotype Rebound*

*Formation of recall indices.* A measure of stereotype accessibility was formed by adding together the number of stereotype words participants recalled during the word recall task. However, we initially performed analyses to determined the appropriateness of each of the stereotype words for assessing stereotype accessibility. First, we sought to determine whether certain words were likely to be recalled for reasons other than stereotype accessibility, as evidenced by an unusually high likelihood of recall. Four words (promiscuous, feminine, hairstylist, and sexual) were recalled far more often than other words—by between 62% and 78% of the participants. (The remaining 11 stereotype words were recalled by between 25% and 47% of the participants.) Furthermore, recall for these four words was also unusually high in the appended control group, in which participants had written about their last vacation prior to performing the word-recall task (recall rates between 63% and 84%). These findings suggest that recall for the four words was caused by factors other than stereotype accessibility, such as the length or salience. Thus, these words were not included in the stereotype recall measure.

Second, ratings from the stereotype knowledge questionnaire were analyzed to determine whether participants thought each word was part of the cultural stereotype of gays. The mean stereotypical rating for one word fell below the criterion we had set, which was a mean stereotypical rating of at least 5.5 on the 7-point scale. This word was "neat," and its mean stereotypic rating was 4.97,  $SD = 1.86$ . (The average of the mean stereotypicality ratings for all other words was 5.94, average  $SD = 1.44$ .) Thus, "neat" was omitted from the recall index. We also analyzed the stereotypicality ratings for each stereotype word in a series of ANOVAs including Instruction, Prejudice Level, and Order as between-subject factors. Although an occasional main effect or interaction was obtained, in no case did any cell mean drop below our 5.5 criterion.<sup>6</sup> Thus, low- and high-prejudice participants were equally knowledgeable of the stereotype, and neither the instruction nor order condition affected the stereotype knowledge ratings.

<sup>6</sup> "Designer" was associated with a significant Prejudice Level main effect,  $F(1, 100) = 5.56$ ,  $p < .02$ . "Disgust" was associated with a significant Order main effect,  $F(1, 100) = 5.61$ ,  $p < .02$ . Finally, an Instruction  $\times$  Prejudice Level interaction was found for "Sinful,"  $F(1, 100) = 7.66$ ,  $p < .01$ .

TABLE 1

EXPERIMENT 2: PROPORTION OF NONSTEREOTYPE AND STEREOTYPE WORDS RECALLED AS A FUNCTION OF PREJUDICE LEVEL AND INSTRUCTION CONDITION

Type of Words	Low-Prejudiced		High-Prejudiced	
	Control	Suppress	Control	Suppress
Nonstereotype	.40a	.44a	.40a	.41a
Stereotype	.34a	.34a	.31a	.42b

*Note.* Within word type, cell means with different subscripts differ significantly from each other by Fisher's Least Significance Difference tests.

Given these initial analyses, the final stereotype recall index included 11 possible items, which we divided by 11 to yield the proportion of stereotype words recalled. We also formed an index representing recall for the remaining 64 nonstereotypic words by adding together the number of words that were correctly recalled and dividing by 64.

*Stereotype and nonstereotype recall.* The proportion of stereotype and nonstereotype words recalled was analyzed using a  $2 \times 2 \times 2$  ANCOVA.<sup>7</sup> Instruction and Prejudice Level were the between-subjects factors, and word type (stereotype versus nonstereotype) was treated as a within-subject factor. Because there was individual variability in recall ability, the proportion of words recalled during the first recall trial (which had not included any stereotype words) was used as a covariate. Scores on the covariate did not vary as a function of experimental condition,  $F_s < 1.66$ ,  $ps > .20$ .

The analysis revealed a significant effect for the covariate,  $F(1,97) = 11.20$ ,  $p < .001$ . Of greater theoretical importance, the analysis also revealed two main effects and a higher-order interaction. First, a significant main effect for instruction was obtained, such that recall was greater in the suppress ( $M = .39$ ) than control ( $M = .36$ ) condition,  $F(1, 97) = 10.27$ ,  $p < .01$ . Second, a main effect for word type was obtained, such that participants recalled more nonstereotype ( $M = .42$ ) than stereotype words ( $M = .36$ ),  $F(1,98) = 12.79$ ,  $p < .001$ . This finding carries little meaning, given the two sets of words were not matched for length or valence.

More importantly, the Instruction  $\times$  Prejudice Level  $\times$  Word Type interaction was significant,  $F(1, 98) = 4.18$ ,  $p < .05$ . The means are shown in Table 1. The nature of this interaction was examined by performing separate ANCOVAs for each word type. The covariate was significant in both analyses,  $F_s > 4.62$ ,  $ps < .04$ . In the analysis of the nonstereotypic words, the only other significant effect

<sup>7</sup> Data from five participants were excluded from analyses of the recall data. Four participants were excluded because they were privy to the relation between the passage-writing task and the recall task, which was apparent based on their written description of their reaction to the recall task. Data from the remaining participant were excluded because he/she apparently had unusual difficulty completing the recall task (e.g., few words were recalled and most words recalled were misspelled).

was for instruction,  $F(1, 97) = 4.66, p < .04$ . Overall, recall was greater among participants in the control ( $M = .43$ ) than suppress ( $M = .40$ ) condition, although, as shown in Table 1, none of the cell means differed significantly from each other. In contrast, the ANOVA performed on the proportion of stereotypic words recalled revealed a significant main effect for instruction,  $F(1, 97) = 5.30, p < .03$ , which was qualified by an interaction between instruction and prejudice level,  $F(1, 97) = 3.63, p = .06$ . As shown in Table 1, high-prejudice participants in the suppress condition recalled significantly more stereotype words than participants in the other conditions. The high-prejudice, suppress participants thus appeared to be at an advantage with respect to recall for the stereotype words, relative to participants in all other conditions. This presumably occurred because these words were unusually accessible, which enabled participants to notice and recall them in addition to recalling nonstereotype words.<sup>8</sup>

Further analyses involving the appended control group, in which a separate group of participants wrote a passage about their last vacation and then performed the recall task, lend additional support to the notion that stereotypes were on the rebound among the high-prejudice, suppress participants only. Recall of the nonstereotype words in the appended control group was .41, which did not differ significantly from any of the nonstereotype recall means shown in Table 1. Recall for the stereotype words was .30, which differed only from recall among high-prejudice participants in the suppress condition,  $t(43) = 2.78, p < .01$ . These findings further corroborate the conclusion that recall for the stereotype words was enhanced among high-prejudice participants in the suppress condition only. Stereotypes appeared to be on the rebound, but only among some participants.

### Discussion

Experiment 2 reinforces the conclusion from Experiment 1 that stereotypes do not become highly accessible after certain social perceivers, namely low-prejudice individuals, are instructed not to think about them. The second experiment indicated that this is not the case for high-prejudice individuals. Specifically, the relatively high recall of stereotype words among high-prejudice participants in the suppress condition suggests that these words were unusually accessible. This state of enhanced accessibility potentially will be associated with a surge of stereotypic responses, unless high-prejudice individuals are monitoring their responses and moderating expressions of prejudice because of salient social

<sup>8</sup> One might expect stereotypes to be somewhat more accessible among high-prejudice participants in the control condition also, given that these participants wrote passages that included stereotypes. Perhaps shifting from one task to a supposedly entirely different and unrelated task (i.e., from the passage-writing to the recall task) constituted a shift in context that was large enough to allow stereotypes to become less accessible. Indeed, even in the computer-controlled lexical decision task used by Macrae, Bodenhausen, et al. (1994, Experiment 3) for assessing stereotype accessibility, reaction times to stereotypes were not significantly faster among control condition participants who had just recently constructed stereotypic passages, relative to baseline reaction times for the words (although there was a tendency in this direction).

norms (as appeared to occur in Experiment 1, for the second passage). The findings from Experiment 2 parallel Macrae, Bodenhausen, et al.'s (1994, Experiment 3) results nicely, but extend them by demonstrating the different pattern obtained for low versus high-prejudice participants.

## GENERAL DISCUSSION

Previously obtained stereotype suppression effects (Macrae, Bodenhausen, et al., 1994; see also Wegner & Wenzlaff, 1996) have raised the possibility that even well-intentioned people may not be successful at exerting control over prejudiced responses and that, in fact, their best efforts will be realized in the worst possible outcomes (i.e., an increase in the frequency of prejudiced responses). However, we found that people with low-prejudice attitudes toward gays did not show the usual pattern of stereotype rebound. Whether low-prejudice participants were initially instructed to avoid stereotypic thoughts or not, they subsequently did not show an increase in stereotypic responses (Experiment 1) or heightened accessibility of stereotypes (Experiment 2).

In contrast, participants who held negative attitudes toward gays were more preoccupied with stereotypic thoughts. However, in contrast to Macrae, Bodenhausen, et al.'s (1994, Experiment 1) findings when skinheads were used as the stereotyped group, we did not find that high-prejudice participants who initially suppressed stereotypes later used them even more than their control counterparts. Reasoning that social norms made salient by the initial instructions to suppress stereotypes may have led high-prejudice participants not to apply stereotypes, we examined the level of stereotype accessibility in Experiment 2. Here we found that stereotypes were indeed highly accessible among the high-prejudice participants who had initially suppressed stereotypes (as evidenced in superior recall for stereotype words in the recall task), relative to high-prejudice participants who previously had freely expressed their stereotypes.

Overall, our results imply that postsuppression periods sometimes will and sometimes will not be associated with a rebound of stereotypic thoughts. We turn now to a more detailed consideration of each of these possible outcomes of attempts to control stereotypes through suppression.

### *Stereotypes Not on the Rebound*

Our findings indicate that, when people are equipped with the personal motivation and desire to avoid stereotypic thinking, they will be able to do so, and they will not incur subsequent costs in the form of heightened stereotype accessibility or increased stereotype use. Precisely how low-prejudice individuals are able to do this will be important to explore in future investigations. One possibility is that low-prejudice individuals do not experience stereotype activation. Two recent studies suggest that this may be the case. First, Wittenbrink et al. (1997) demonstrated a correspondence between explicit racial attitudes and implicit stereotypic associations, which suggests that stereotypes are less likely to be automatically activated among low- than high-prejudice individuals. Second,

Lepore and Brown (1997) found that low-prejudice participants did not show evidence of negative stereotype activation when stereotypes of Blacks were subliminally primed.

Another possibility is that stereotypes are briefly activated among low-prejudice persons, but then they are efficiently and effectively suppressed without later resulting in a rebound effect. A large body of literature has demonstrated that even low-prejudice individuals show evidence of implicit stereotyping effects (Banaji & Greenwald, 1995; Banaji et al., 1993; Bargh, Chen, & Burrows, 1996, Experiment 3; Devine, 1989; Dovidio, Kawakami, Johnson, & Howard, 1997; Fazio, Jackson, & Dunton, & Williams, 1995). Furthermore, a majority of low-prejudice individuals report that they are prone to having stereotypic thoughts and reactions (e.g., Devine et al., 1991; Monteith et al., 1993). The possibility that stereotypes are activated but then successfully suppressed thus also needs to be considered.

If low-prejudice individuals do experience stereotype activation, how would they be able to avoid the paradoxical effects of thought suppression that have been observed in a variety of domains, from suppressing secrets (Lane & Wegner, 1995), to thoughts about white bears (Wegner et al., 1987) and past romantic partners (Wegner & Gold, 1995)? A combination of factors could contribute to such an ability (Monteith et al., 1998). Low-prejudice individuals do not wish to have stereotypic responses, and they experience guilt when they do engage in stereotypic responses (Monteith, 1993). The fact that stereotypic thoughts are personally intrusive may enable people to suppress unwanted thoughts without experiencing rebound (Kelly & Kahn, 1994). Furthermore, low-prejudice individuals may process or gather individuating information to serve as a replacement for stereotypic thoughts (Brewer, 1988; Fiske & Neuberg, 1990), or individuals' low-prejudice egalitarian beliefs may be used as a replacement for stereotypic thoughts (Devine, 1989). For example, thoughts of a gay man having a stereotypic profession may momentarily occur to low-prejudice persons, but such thoughts then can be replaced by nonstereotypic thoughts. This is akin to the "compound strategy" for thought suppression that Wegner (1994; Wegner & Wenzlaff, 1996) discussed, whereby the availability of a replacement thought effectively prevents rebound from occurring. Furthermore, low-prejudice individuals' goal to be nonprejudiced likely has made them accustomed to suppressing stereotypic thoughts, which may facilitate mental control (Kelly & Kahn, 1994).

Whatever mechanisms are at work, the present findings indicate that reminding low-prejudice individuals to avoid stereotypic thinking does not have the dreaded paradoxical effects that could serve as obstacles to even well-intentioned persons' ability to control their prejudice. Whether there are important limitations to this conclusion will need to be investigated in the future. For example, Wegner and his colleagues (e.g., Wegner & Erber, 1992; Wegner, Erber, & Zanakos, 1993) often observe rebound effects when participants' ability to focus on material other than the unwanted thought is undermined through the imposition of a cognitive load. Are low-prejudice individuals able to avoid the paradoxical effects of thought

suppression even if they are experiencing a cognitive load? A scarcity of cognitive resources should increase the likelihood of stereotypic responses among low-prejudice participants who are not reminded to avoid stereotypic thinking (e.g., Higgins & King, 1981; Kruglanski & Freund, 1983; Pratto & Bargh, 1991), but what would be expected for participants under suppress instructions? If the experimenter's reminder to avoid stereotypic responses helps low-prejudice persons to concentrate on nonstereotypic information or to generate nonprejudiced responses, one would expect fewer intrusions of stereotypic thoughts under suppress than control instructions. Such a pattern would have favorable implications indeed, suggesting that the conscious intent to avoid stereotypic thinking—introduced by an external agent's reminder to avoid stereotypes—can prevent the sort of "mindless" reliance on stereotypes that has been observed in previous research. However, if suppression instructions do result in ironic monitoring processing activity (see Wegner, 1994) that serves to increase stereotypic thoughts, rebound may be observed under a cognitive load.

Along with low-prejudice participants, high-prejudice participants also did not show the usual pattern of rebound under certain circumstances (Experiment 1). Specifically, our findings suggested that, even if one is not personally motivated to control one's prejudiced responses, rebound will not occur as long as social norms against the use of stereotypes remain salient. Saliency may depend, in part, on the potency of the social norms. For example, current social norms against expressing prejudice toward gays on college campuses appear to be quite strong, and the activation of such norms serves as a powerful force in curbing expressions of prejudice about gays (Monteith et al., 1996). Social norms against expressing prejudice against Blacks may be even stronger (e.g., Gaertner & Dovidio, 1986), so that—had we used Blacks as the target group in Experiment 1—even high-prejudice participants may have been especially disinclined to include stereotypes in their passages. Conversely, social norms against the use of stereotypes about skinheads and other groups typically used in stereotype suppression research may be extremely weak, so that stereotypic thoughts will be freely and abundantly expressed after the instructions to suppress stereotypes have been relaxed (as in Macrae, Bodenhausen, et al., 1994; Macrae et al., 1998). In sum, although stereotypes may be made accessible following instructions to suppress them, expression of stereotypes may continue to be inhibited (or not), depending on the nature of salient social norms.

### *Stereotypes on the Rebound*

Our findings highlight a situation in which stereotypes are likely to be on the rebound, which is when one's true desire is to have stereotypic responses but external constraints prohibit such responses. High-prejudice persons who endorse stereotypes, who are not personally opposed to responding in stereotypic ways, and whose entire repertoire of typical behaviors toward the stereotyped group includes little more than stereotypic patterns of responding are willing to follow an experimenter's instructions to avoid stereotypic responses. However, at a later

time, high-prejudice persons' minds are likely to be highly preoccupied with stereotypic thoughts, creating heightened potential for prejudiced responses (unless the situation threatens social disapproval for such responses).

Does the potential for an escalation in prejudiced responses mean that messages against stereotypes and prejudice should not be communicated? Although possibly having undesirable effects, such messages may have the positive consequences of giving prejudice a "bad name," and creating a normative environment that discourages prejudice and helps to control its influence on people's opinions and behavior. Thus, although we would not argue that such messages will produce actual changes in high-prejudice people's beliefs, other potentially positive effects should be weighed against the possibility of rebound.

### Conclusions

Recent, compelling demonstrations of stereotype rebound effects (Macrae, Bodenhausen, et al., 1994; Macrae et al., 1998; see also Wegner & Wenzlaff, 1996) have indicated that stereotype suppression is an ineffective and counterproductive form of mental control. However, the present findings point to important boundary conditions to the stereotype rebound effect. When suppression is examined in the context of stereotypes of social groups for which there are strong personal and social concerns over the use of stereotypes, the usual patterns of stereotype rebound effects are not always observed. Some individuals (i.e., those whose personal attitudes do not condone stereotyping) showed no evidence of rebound in terms of stereotype activation or application; other individuals (i.e., those whose personal attitudes sanction stereotyping) showed evidence of stereotype rebound only in terms of stereotype accessibility, and not in terms of stereotype application. Additional investigations are needed that continue to go beyond establishing that stereotype rebound can occur to provide insight into when and for whom stereotype rebound is and is not likely to occur.

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