

Saying no to negativity: The effects of context and motivation to control prejudice on automatic evaluative responses

William W. Maddux,* Jamie Barden, Marilynn B. Brewer, and Richard E. Petty

Department of Psychology, The Ohio State University, 1885 Neil Ave., Columbus, OH 43210, USA

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Abstract

The current research explored the interaction of context and motivation to control prejudice reactions (MCPR) on automatic evaluative responses toward individuals of different races. Three studies incorporated contextual backgrounds into an evaluative priming procedure. Across all three studies, White participants low in MCPR demonstrated automatic ingroup biases when threatening contexts were presented. However, in contexts where targets could be construed as threatening, Whites high in MCPR showed automatic *outgroup* biases in favor of Blacks over Whites. Importantly, this outgroup bias was driven by an automatic inhibition of negative responses toward Blacks. The results indicate that even at the automatic level, people high in motivation to control prejudice can inhibit negative responses toward Blacks in contexts that have cues associated with prejudice.

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“Especially when inner conflict is present, people put the brakes upon their prejudices. . . To be sure, the inner check operates differently in different circumstances. . . Brakes may be applied anywhere, according to the strength of counterforces (inner and outer).” (Allport, 1954, pp. 332–333).

Nothing is more painful to me at this stage in my life than to walk down the street and hear footsteps and start thinking about robbery. Then look around and see somebody White and feel relieved. . . — Jesse Jackson

Certain contexts can exert a strong biasing influence on our social judgments. Even civil rights leader Jesse Jackson noted that he unwittingly finds himself fearing Blacks when walking down a dark alley. Similarly, in the aftermath of the events of September 11th, 2001, it may be quite difficult for many people to prevent prejudiced thoughts from entering their minds when encountering Middle Eastern men in airports or aboard airplanes. Based on existing cultural stereotypes or recent negative events, certain contexts can cue more negativity toward some groups than others. Thus, eliminating racial pro-

filings of Blacks by the police, or “passenger profiling” of Middle Eastern men by the airlines may be quite difficult, even if it is expressly forbidden.

In modern day America, it is socially undesirable to express prejudice against any group of people, regardless of the situation. However, America has a long history of prejudice and discrimination against a variety of groups, including racial minorities, women, homosexuals, foreigners, and people of various religious denominations. As a result, the evidence that Americans are indeed slowly becoming more overtly egalitarian in their thinking over time (Dovidio & Gaertner, 1986; Sears, Hetts, Sidanius, & Bobo, 2000) is tempered by additional evidence that prejudice and negative stereotypes continue to linger, especially at the automatic level (e.g., Devine, 1989; Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Fazio, Jackson, Dunton, & Williams, 1995; Greenwald, McGhee, & Schwartz, 1998).

Nevertheless, recent research suggests that certain contextual variations are powerful enough to moderate what was previously thought to be a ubiquitous automatic racial preference for the ingroup (e.g., Blair, Ma, & Lenton, 2001; Dasgupta & Greenwald, 2001; Lowery, Hardin, & Sinclair, 2001; Wittenbrink, Park, & Judd,

* Corresponding author.

E-mail addresses: maddux.4@osu.edu, w-maddux@kellogg.northwestern.edu (W.W. Maddux).

2001a; for a review, see Blair, 2002). In particular, White participants' typical pattern of automatic preference for Whites over Blacks may be partially or completely attenuated in different contexts (Dasgupta & Greenwald, 2001; Lowery et al., 2001; Wittenbrink et al., 2001a), or even reversed (Barden, Maddux, Petty, & Brewer, 2004). For example, Wittenbrink et al. (2001a) showed that although White participants demonstrated automatic ingroup biases when Black and White faces were presented in a ghetto context, no automatic biases were observed when the same faces were presented in a church context. Thus, the ghetto context served as a contextual cue that facilitated automatic prejudice, while the church context cued more egalitarian automatic responses. In addition, Barden et al. (2004) showed that if the social roles implied by specific contexts are relatively more positive for Blacks than Whites (e.g., factory worker, lawyer), White participants may even demonstrate a complete reversal of the ingroup bias, showing automatic *outgroup* biases in favor of Blacks over Whites. Overall, then, a variety of research has demonstrated that automatic ingroup biases are not ubiquitous or typical effects; instead, automatic expressions of racial bias can show a great deal of variation depending on the salient context.

Motivation to control prejudice and context effects

While the evidence for contextual influences on automatic processes continues to grow, researchers have yet to investigate individual differences as potentially interacting with contextual influences on automatic prejudice. In paradigms involving automatic measures of prejudice, it seems likely that people who vary in their motivation to control prejudiced reactions (MCPR) may respond differently to contextual manipulations. For example, when a salient context implies that prejudice is especially likely (e.g., when encountering Blacks in a dark alley or in a ghetto), such strong prejudice-facilitating cues may activate MCPR, leading highly motivated people to try to prevent the possibility of prejudiced responses. Although both MCPR and contextual cues are usually explicit variables (i.e., people are aware of them and can consciously report them), it is plausible that if contextual cues are sufficiently strong, and if one's motivation to prevent prejudice is sufficiently high and well practiced, even automatic responses toward Blacks and Whites may be affected. Thus, although some people may indeed show automatic prejudice toward Blacks in the context of a ghetto or dark alley, highly motivated people may be able to prevent automatic prejudice in such contexts.

Findings from previous research certainly suggest the possibility that MCPR and context could interact to influence automatic prejudice. First, a variety of re-

search has demonstrated that MCPR can influence race-relevant responses on controlled or explicit measures (e.g., Dunton & Fazio, 1997; Olson & Fazio, 2004; Plant & Devine, 1998; Towles-Schwen & Fazio, 2003). For example, Towles-Schwen and Fazio (2003) showed that on a questionnaire involving hypothetical interactions, high MCPR individuals were more likely than low MCPR individuals to say they would be willing to interact with a Black person (versus a person of unspecified race) in certain situations. However, recent evidence suggests that MCPR can reliably influence responses on automatic measures of racial prejudice as well (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002). In this research, people with internalized motivation consistently showed less automatic prejudice (on both a sequential priming task and an Implicit Association Test) than people with externally driven motivation, as well as compared to people who were less motivated to control prejudice. This research provided the first evidence that MCPR can reliably influence automatic prejudice.

Thus, although context and MCPR are variables that usually operate at the controlled/explicit level, findings from recent research have made it clear that both can affect automatic responses. Therefore, there is reason to think that the MCPR and context could interact to produce meaningful effects on automatic measures of prejudice. The current research sought to explore this possibility for the first time. We expected that when salient contexts contained strong prejudice-facilitating cues (e.g., ghetto or dark alley), such contexts might activate MCPR, leading to moderation of automatic responses depending on participants' level of MCPR. In prior research on people's attempts to de-bias their explicit judgments, making a possible biased reaction salient has been instrumental in producing corrective action (see Wegener & Petty, 1997, for a review). Similarly, we expected that in bias-salient contexts, high MCPR people would show less automatic prejudice than low MCPR people. However, in contexts where prejudice cues were largely absent (e.g., church), MCPR was not expected to be activated, and thus no moderation of automatic responses was expected based on MCPR.

Study 1

Study 1 served as an initial investigation into the possibility that context and MCPR can interact to affect automatic racial biases. The current research used an evaluative priming procedure (Fazio et al., 1995) to measure automatic evaluative responses to Black and White stimuli. Estimates of racial prejudice are indicated by the differences in response latencies to positive and negative target adjectives when Black faces versus White faces serve as primes. For example, if participants

exhibit significantly more facilitation when White faces precede positive adjectives and when Black faces precede negative adjectives, this indicates an automatic evaluative response favoring Whites over Blacks. The evaluative priming measure is considered an automatic measure because the presentation time of the face primes followed by the target adjectives is below the 500 ms threshold at which conscious responses have been shown to be possible (Neely, 1977; Posner & Snyder, 1975). Below the 500-ms threshold, people are not able to consciously alter their automatic responses, even when instructed to do so (Neely, 1977).¹

Recent work has found that integrating background settings into evaluative priming procedures can reliably moderate automatic responses toward race-related targets (Barden et al., 2004; Wittenbrink et al., 2001a). For example, although White participants showed automatic racial prejudice when Black versus White faces were presented in a ghetto context, they showed no biases when the same faces were presented in a church context (Wittenbrink et al., 2001a). In the current research, we tested the idea that prejudice-facilitating contextual cues might activate MCPR, leading to different automatic responses depending on individuals' level of MCPR.

For Study 1, an evaluative priming measure was modified so that the background consisted of one of two visual settings—a prison cell, or the inside of a church—which appeared continuously in the background for the duration of each block of around 40 trials. The church was expected to be a non-biasing context, because it is generally associated with positive roles and positive Black and White stereotypes. The jail context was included to include potential prejudice-facilitating cues, including negative roles and negative Black stereotypes (e.g., criminal), as well as the element of fear or threat (Barden et al., 2004). Thus, the two contexts were chosen to include one context that had no prejudice-facilitating cues (church), and one context that contained a number of prejudice-facilitating cues (jail). Contexts used in all studies are presented in Fig. 1.

Method

Participants

Sixty-three male and female introductory psychology students at Ohio State University voluntarily participated in return for partial course credit. Participants

were recruited via the psychology department's online research participation program. Data from 9 minority participants were not included in the analyses, as were data from 2 participants whose error rates approached 50%, indicating random responding. This left the data from 52 White participants for formal analysis.

Stimulus materials

Priming stimuli consisted of 6 color photographs of college-aged White and Black males with neutral expressions. Photos were selected so that they did not include any jewelry or facial hair. Photo editing software was used to remove the background and shirt from each photo, leaving the face and the neck. Two digital pictures (800 × 600 pixels) were used as contextual backgrounds, one of the inside of a church, and one of a prison cell (see Fig. 1). Contexts were selected so that a face could plausibly appear in the bottom center of the photo.

Six adjectives were selected from Anderson's (1968) list of trait adjectives to serve as targets for the priming task. Three positive adjectives (pleasant, likeable, and wonderful) and 3 negative adjectives (offensive, repulsive, and annoying) were used for the critical trials. To obtain as accurate a measure of participants' pure evaluative responses towards the primes as possible, these target adjectives were chosen based on their absence of specific stereotype-relevant content. Within each context, the 6 adjectives were fully crossed with the 6 primes, resulting in a total of 36 critical trials per context. Four faces (2 White and 2 Black) and 4 target adjectives (2 positive and 2 negative) were used in "filler" trials to increase the variety of primes and targets. Six filler trials were included for each context, but these trials were not included in the final analysis because they were not completely counterbalanced with adjectives and contexts, and thus responses toward these faces could not be generalized across contexts. This resulted in 42 trials presented in each of the 2 contexts, for a total of 84 trials being presented during the critical priming phase of the experiment, 72 of which were critical trials.

Procedure

Participants were led into the laboratory by a White male experimenter and randomly assigned to one of several IBM-compatible computers. Participants were told that the experiment dealt with performance on automatic tasks, and that it would consist of several varieties of the same basic reaction-time test. The experimenter then told participants to turn on their computer monitors and follow the instructions on the screen, and then left the room.

With a few modifications, the procedure follows the standard evaluative priming procedure designed to assess automatic evaluative responses (Fazio et al., 1995). The experiment was presented using MediaLab and

¹ It should be noted that the evaluative priming procedure is not considered a measure of automatic stereotype activation. Research has demonstrated that the conceptual 'word/not word' judgments in a lexical decision task are considered a better measure of automatic stereotype activation (Wittenbrink, Park, & Judd, 2001b), rather than the more evaluative judgments made in the evaluative priming procedure. Rather, the current measure is considered an estimate of individuals' automatic evaluative responses toward targets (Wittenbrink et al., 2001b).

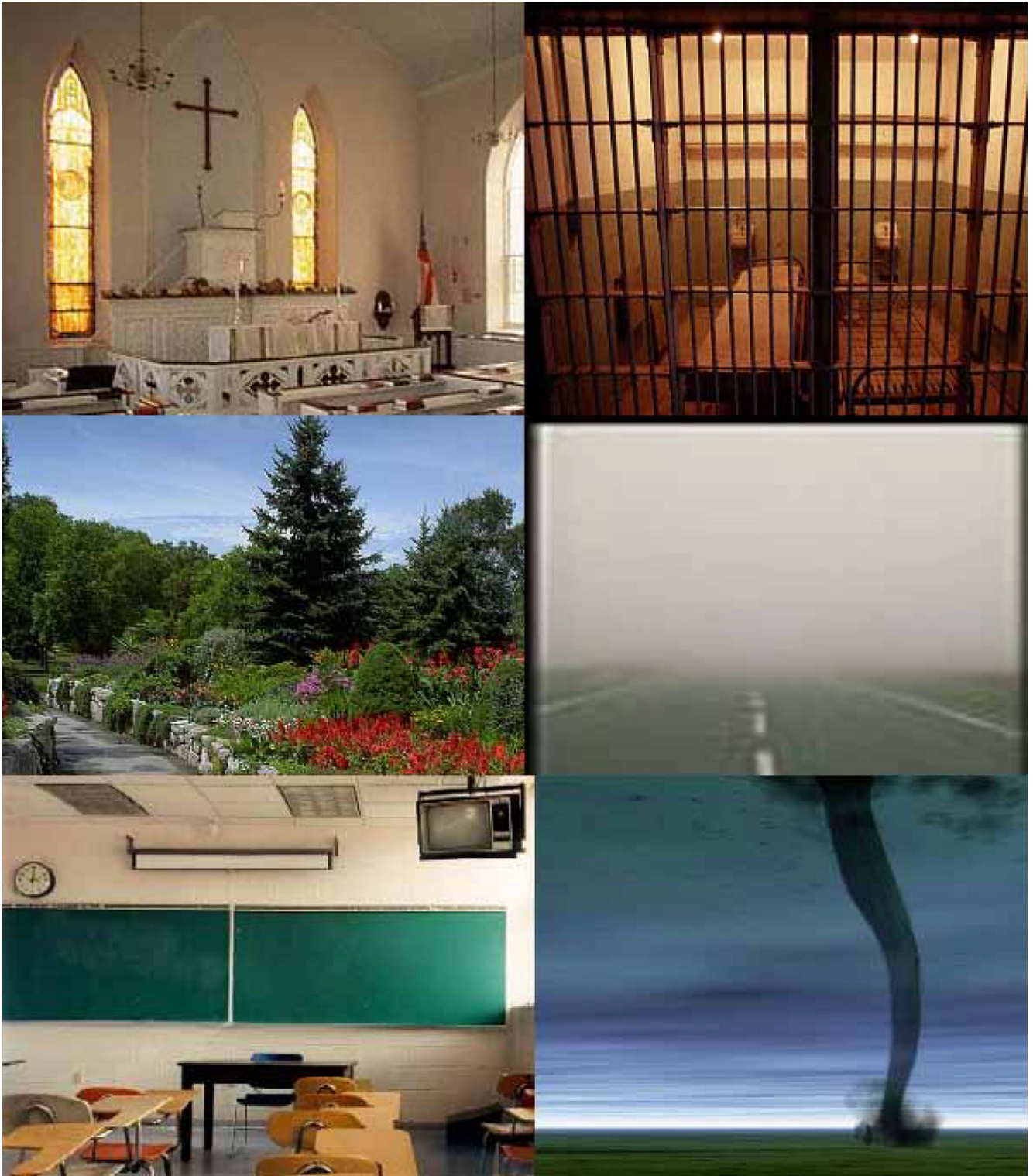


Fig. 1. Contextual backgrounds: Study 1, Church/Jail; Study 2, Garden/Foggy Street; and Study 3, Classroom/Tornado/Jail.

DirectRT software (Jarvis, 2002a, 2002b). Participants were instructed that the first task of interest was to see how fast they could categorize adjectives as good or bad. This first phase of the experiment was designed to obtain participants' baseline response rates to each of several

adjectives that would be used as targets in a subsequent priming procedure. For this task, several adjectives, either positive or negative in meaning, were presented, and participants were told to press a key on the left labeled "bad" and a key on the right labeled "good" to

indicate their evaluative judgment of each adjective. Participants were told to respond as quickly as possible while being as accurate as possible.

Six practice trials consisting of filler adjectives were presented in order to familiarize participants with the task. The beginning of each trial was signaled by the presentation of a row of asterisks in the center of the computer screen for 500 ms. The asterisks were replaced by a blank screen for 100 ms, after which the adjective appeared on the screen and remained until the participant responded. An inter-trial delay of 3 s followed each response. After the practice trials, the 6 target adjectives were randomly presented twice each in the same manner. Latencies were recorded for these trials to the nearest millisecond to provide baseline response times for each participant.

The second part of the experiment involved familiarizing participants with a face recognition task, and participants were told that this was the second task in which we were interested. Participants were instructed to pay attention to several faces that were to appear briefly on the screen, as they would later be tested for recall of these faces. Eight non-target male faces of Whites and Blacks were then presented one by one on the screen for 215 ms, followed by an inter-trial delay of three seconds. All faces appeared in the bottom center of the screen, with the neck terminating on the bottom of the screen. Sixteen trials (two of each face) were presented in random order.

Part three of the experiment consisted of familiarizing participants with the actual priming task. This involved the combination of the previous two tasks. As part of the cover story, the instructions indicated that we were now interested in how well participants could perform both the face recognition and word judgment tasks simultaneously. We told participants that if word-categorization and face-recognition were truly automatic tasks, then performance should not be affected when doing both tasks simultaneously. However, if the tasks were not automatic, then performance might be affected. At the beginning of each trial, a row of asterisks appeared for 500 ms. The asterisks were followed by a blank screen for 100 ms, after which either a White or Black face was presented for 215 ms. After a 100 ms delay, a target adjective appeared on the screen. These presentation times resulted in a total stimulus onset asynchrony (SOA) of 315 ms, below the 500 ms threshold at which responses have been shown to be automatic and uncontrollable (e.g., Fazio et al., 1995; Neely, 1977). Participants were instructed to remember each face for the future recall test, while at the same time judging the meaning of each adjective as they had done in phase one. Six practice trials were then presented, consisting of filler faces and adjectives. A 3-s inter-trial delay followed each trial to be consistent with critical trials where the context would be presented in the background during this period.

Following these practice trials, participants moved to the critical fourth phase of the experiment. The instructions indicated that we would be adding one more aspect to the experiment—context. We explained that judgments in real life are always made within some context—at home, at school, at a party, and so forth. Therefore, to make the experiment more like real life, we indicated that we were going to put a picture of a context on the screen. Participants were instructed to keep the context in mind as they performed the combined task, and to imagine the sights, sounds, and smells that would be present.

One of the two contexts (church, jail) then appeared, filling the entire screen and remaining there for three seconds, after which the priming task began. Presentation times of the asterisks, primes, and target adjectives were identical to part three. Primes and adjectives appeared over each context, giving the impression that the faces were people in the context. The contexts remained on the screen more or less constantly, disappearing for only approximately 100 ms following participants' responses to the target adjectives (time required by the DirectRT software to load the next trial). The interruption was brief enough that it did not dispel the feeling that participants constantly remained in the context. Thus, these contextual cues could be processed at the controlled/explicit level. The order of the trials within each context was randomly determined. The order of the presentation of the context blocks was counterbalanced between two combinations: either jail/church or church/jail. The 2 contexts, 6 primes, and 6 adjectives used for critical trials were completely counterbalanced, such that each target adjective was preceded by each face-prime exactly once within each context. Between each block, instructions appeared on the screen reminding participants to imagine themselves in the context as they performed the task.

Following the completion of this phase, participants were told that they would be tested for recall of the faces during the experiment. As part of the cover story, the instructions indicated that we were interested in the extent to which participants had been able to memorize faces as they were completing the adjective categorization tasks as well. Thus, participants completed a face recall test to bolster this cover story. Participants were presented with 6 faces and were asked to indicate whether or not they had seen the 6 faces during the task. Of these 6 faces, 3 had appeared previously and 3 had not. This task was included to corroborate the cover story that the face primes were part of a face recognition task, and to call attention away from any suspicions that participants may have had about the true nature of the experiment.²

² Recall on the face recognition task was above chance levels in all three experiments, suggesting that participants were indeed paying attention to the task as they were performing it.

Following the face recognition task, participants were told that the experiment was finished, but that we would like them to answer some questions that we were pre-testing for use in future experiments. These instructions were provided to disguise the fact that the individual questions and the priming task were related. Participants then responded to the 17 statements that make up the Dunton and Fazio (1997) MCPR measure.³ The statements were presented on a bipolar scale ranging from 1 (strongly disagree) to 7 (strongly agree). After completing this measure, participants were debriefed and thanked for their time.

Results

Error rates and outliers

Across included participants, relatively few errors were made in judging adjectives as positive or negative (4.5%), and these trials were excluded from further analyses. The data also exhibited few “outliers” (1.1%), defined as responses less than 300 ms or greater than 1000 ms. Responses less than 300 ms indicate that participants responded more quickly than is considered physically possible (indicating a blind guess), so these trials were dropped from the analyses. Response times greater than 1000 ms usually indicate temporary attention lapses. These response times were reset to 1000 ms so that they would not overly influence the results. This procedure is one typical method to normalize the distribution of automatic measures (e.g., Greenwald et al., 1998).

Facilitation scores

Facilitation scores were computed for each participant by taking the average of the two baseline response times for each adjective and then subtracting the corresponding response latencies of the critical fourth phase of the experiment from these baseline averages. The facilitation scores were averaged together to get two facilitation scores for each face within each context, one for positive and one for negative adjectives. This was done separately for White and Black faces, resulting in a total of 8 facilitation scores for each participant, one for each of the 8 cells of the 2 (context) \times 2 (race of prime) \times 2 (adjective valence) within-subjects part of the design.

Motivation to control prejudice and context effects

A Cronbach's α coefficient of .78 was obtained for responses on the MCPR scale, indicating satisfactory internal consistency. Thus, further analyses were conducted based on individual differences in MCPR to investigate the possible interactions between MCPR and context. To accomplish this, MCPR scores were added to the within-subjects analysis as a continuous, between-subjects covariate, resulting in a 4-way (MCPR \times context \times race of prime \times adjective valence) mixed factorial Analysis of Covariance. In within-subjects designs using a between-subjects covariate, an ANCOVA is the recommended procedure for analysis, and allows the statistical assessment of the influence of a between-subjects covariate on the within-subjects treatment without necessitating the dichotomization of the covariate (Judd, McClelland, & Smith, 1996). Using an ANCOVA to analyze the effects of a covariate on a particular treatment is consistent with the general linear model, and such an analysis is essentially identical to a regression analysis, with main effects and interactions with the covariate interpretable as would be a typical independent variable (Judd et al., 1996). This scale was kept as a continuous variable so that maximum accuracy and diagnosticity could be achieved without dichotomization (Cohen, 1983; McCallum, Zhang, Preacher, & Rucker, 2002).

Within this overall analysis, there was a significant main effect for race of prime, such that participants showed more facilitation to White face-primes than Black-face primes, $F(1, 50) = 4.14$, $p = .047$, $\eta^2 = .076$. No other lower order effects were significant. However, this main effect was qualified by a significant 4-way interaction involving MCPR, context, race, and adjective valence, $F(1, 50) = 6.61$, $p = .013$, $\eta^2 = .117$, indicating that MCPR moderated automatic evaluative responses differently depending on context. Next, the 3-way (MCPR \times race \times adjective) interactions were investigated within each context separately. Results indicated no significant interaction in the church context, $p < .18$, but did reveal a significant interaction in the jail context, $F(1, 50) = 8.27$, $p = .006$, $\eta^2 = .142$. Thus, MCPR significantly moderated automatic responses in the jail context, but not the church context.

Ingroup/outgroup bias within contexts

To further investigate the relationship between MCPR and automatic responses in each context, an index of automatic responses was generated for each participant in each context. This required calculating an overall automatic-response index based on the four facilitation scores that each participant generated in each context (Dovidio et al., 1997; Fazio et al., 1995): index = (Black prime, positive adjective score – Black prime, negative adjective score) – (White prime, positive adjective score – White prime, negative adjective score).

³ The Dunton and Fazio (1997) MCPR scale consists of two factors, a concern for acting prejudiced factor, and a restraint to avoid dispute factor. In the present research, the effects of both factors tended in the same direction, such that participants high in concern also tended to be high in restraint. However, combining the two factors into a single MCPR factor allowed for simpler interpretation and more powerful effects.

This way a single score was generated to represent the race \times word interaction, with negative scores indicating ingroup bias, zero indicating egalitarian responses, and positive scores indicating outgroup bias.⁴ The results indicated that automatic evaluative responses in the jail context were significantly correlated with MCPR scores, $r(52) = .38$, $p = .006$, whereas automatic responses in the church context were not, $r(52) = -.18$, $p = .186$. Automatic responses in the jail context were inversely related to those in the church context, $r(52) = -.42$, $p = .002$. Thus, the higher participants' MCPR scores were, the less negative automatic responses were to Blacks relative to Whites in the jail context, while no significant relationship emerged in the church context.

To understand the nature of this effect, automatic responses were investigated for people high and low in MCPR. To keep MCPR as a continuous variable, these analyses were performed as a regression, with bias examined at 1.5 *SD* above and below the mean for MCPR. The results from these analyses indicated no significant effects in the church context, $ps > .20$. However, within the jail context, low MCPR participants showed a marginally significant amount of ingroup bias, $t(50) = -1.645$, $p = .106$, whereas high MCPR participants showed a significant amount of outgroup bias, $t(50) = 3.155$, $p = .003$. In other words, the interaction exhibited by low MCPR participants suggests a combination of marginally more positive and/or less negative automatic responses toward Whites than Blacks, while high MCPR participants exhibited significantly more positive and/or less negative automatic responses toward Blacks than Whites. Thus, in the jail context ingroup bias is observed as MCPR decreases, while a significant outgroup bias is observed as MCPR increases (see Fig. 2).

Simple effects

To determine whether specific automatic responses were significantly moderated by race and context, simple effects analyses were then carried out looking at changes in specific responses both within and across contexts. First, four within-context indexes were constructed to capture how race moderated each context \times adjective combination. For example, the facilitation score for the Black + positive response in the church context was subtracted from the White + positive score in the church context, which indicated how Black and White face-primers differentially affected the facilitation to positive words within the church context. Differences in these re-

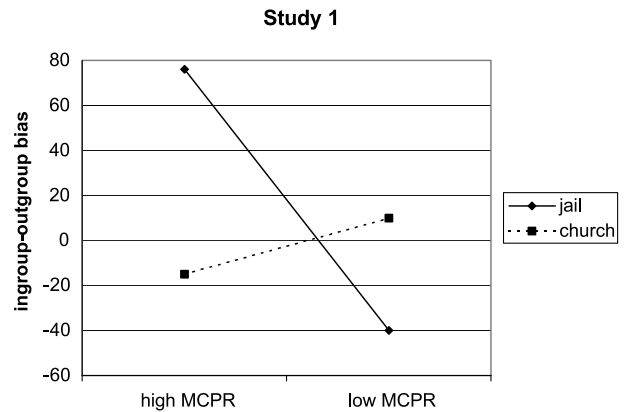


Fig. 2. Automatic responses for high and low MCPR participants, Study 1. Outgroup bias denoted by positive numbers on the y axis, ingroup bias denoted by negative numbers on the y axis.

sponses were then examined separately for both high and low MCPR participants. The results indicated no significant effects for low MCPR participants, although there was a marginal effect for the Jail + positive cell, such that low MCPR participants showed marginally more facilitation for White + positive than Black + positive in the jail context, $t(50) = 1.746$, $p = .087$. High MCPR participants, on the other hand, showed significantly less facilitation to the Black + negative cell than the White + negative cell in the jail context, $t(50) = 2.914$, $p = .005$. No other within-context effects were significant.

Cross-context indexes were also constructed involving responses to each race \times adjective combination. For example, the facilitation score for White + positive responses in the jail context was subtracted from the facilitation score for White + positive responses in the church to examine whether context significantly moderated the White + positive responses. The results indicated that low MCPR participants showed significantly more facilitation for Black + positive in the church context than in the jail context, $t(50) = 2.854$, $p = .006$. However, high MCPR participants showed significantly less facilitation to the Black + negative response in the jail context than in the church context, $t(50) = 2.193$, $p = .033$. No other simple effects were significant (see Table 1). Thus, the ingroup bias for low MCPR participants was mainly due to less facilitation to Black + positive in the jail context relative to the church context, while the outgroup bias on the part of high MCPR participants was due to a significant decrease in facilitation to the Black + negative response in the jail context, both within and between contexts.⁵

⁴ Since all participants in this research were White, the expression 'ingroup bias' is intended as a shorthand way of indicating a pattern of more facilitation to positive words and/or less facilitation to negative words for White face-primers over Black face-primers, while 'outgroup bias' is used to reflect the opposite pattern. This pattern is indicated by the relationship of reaction times in four distinct cells, and rather than referring to each reaction time separately the term 'bias' is used as a simpler term to represent the overall pattern of the four reaction times.

⁵ An analysis of the responses in the Black + negative cell in the prison revealed a normal distribution of response latencies, indicating that this overall mean was not the result of outliers, and was therefore not simply the result of a few people slowing down enough to respond consciously.

Table 1
T values of simple effects for high MCPR participants, Studies 1–3

| Across contexts | Response | | | |
|-----------------|--------------------|-----------------|------------------|--------------------|
| | White/positive | White/negative | Black/positive | Black/negative |
| <i>Study 1</i> | | | | |
| Church–Jail | 1.376 | –.518 | –1.515 | 2.193* |
| <i>Study 2</i> | | | | |
| Garden–Street | 1.714 ⁺ | –1.498 | –.868 | 2.121* |
| <i>Study 3</i> | | | | |
| Class–Jail | 1.186 | –.590 | –.503 | 2.221* |
| Tornado–Jail | .799 | –1.228 | .370 | 1.862 ⁺ |
| Class–Tornado | .359 | .650 | –1.079 | .919 |
| Within contexts | Response | | | |
| | Church/positive | Church/negative | Jail/positive | Jail/negative |
| <i>Study 1</i> | 1.510 | –.309 | –.768 | 2.914** |
| <i>Study 2</i> | Garden/positive | Garden/negative | Street/positive | Street/negative |
| | 1.228 | –.441 | –.868 | 2.435* |
| <i>Study 3</i> | Class/positive | Class/negative | Tornado/positive | Tornado/negative |
| | 1.517 | –.596 | –.155 | –.519 |
| | | | Jail/positive | Jail/negative |
| | | | –.578 | 2.954* |

⁺ Denotes significant at the $p < .10$ level.

^{*} Denotes significant at the $p < .05$ level.

^{**} Denotes significant at the $p < .01$ level.

Discussion

Study 1 provided initial evidence that automatic responses are moderated by the interaction between MCPR and contextual backgrounds. When a picture of a church was presented as a contextual background in an evaluative priming procedure, there were no differences in automatic responses toward Blacks and Whites based on participants' level of MCPR. However, when a picture of a jail was presented as a background context, low MCPR participants showed a marginal ingroup bias,⁶ while high MCPR participants actually showed a significant *outgroup* bias. Thus, in a context (jail) where low MCPR individuals showed a pattern of responses indicative of automatic bias for Whites over Blacks, high MCPR participants actually showed the opposite pattern, indicating an automatic bias for Blacks over Whites. These results suggest that the cues in the jail context (but not the church context) activated MCPR, leading to moderation of automatic responses based on participants' level of MCPR.

Simple effects analyses indicated that the ingroup bias for low MCPR participants was mostly the result of differences to the Black + positive response. This effect is consistent with the idea that positive evaluative re-

sponses were lower for Blacks in the jail than in the church, and is consistent with previous research showing that automatic biases for Whites over Blacks tend to be elicited in contexts where prejudice-relevant cues are present (Barden et al., 2004; Wittenbrink et al., 2001a). However, the slowing to the Black + negative response for high MCPR individuals, evidenced by the analyses of simple effects with and between contexts for high MCPR participants, suggests a momentary slowing or inhibition of negativity toward Blacks in a context associated with prejudice.⁷ Because people high in MCPR are chronically motivated to control negative responses (i.e., prejudice) toward Blacks, this slowing to the Black + negative pairing is consistent with a controlling or avoiding of a possibly prejudiced response. Thus, in a context where prejudice-facilitating cues existed (jail), high MCPR participants seemed to inhibit responses in a manner consistent with their motivational tendencies.

The inhibition of negativity effect is also quite consistent with results from recent research, which has shown that cues associated with prejudiced responses lead specifically to the slowing of negative responses toward Blacks (Monteith et al., 2002). In this research, Monteith et al. (2002) showed that people who felt guilty about their performance on an IAT later showed a momentary pause when they were asked to indicate whether they liked or disliked Black names. This slowing

⁶ Although only a marginal ingroup bias was obtained in Study 1, the mean for MCPR ($M = 18$) was higher in Study 1 than in Study 2 ($M = 14$) and Study 3 ($M = 11$). Thus, one reason a significant ingroup bias was not obtained may have been because low MCPR participants were actually in the more moderate part of the continuum in Study 1. In addition, it is important to note that significant ingroup biases were obtained Study 2 and Study 3, suggesting a reliable ingroup bias effect for low MCPR participants in the prison and foggy street contexts.

⁷ Our use of the term 'inhibition' does not imply a slowing of responses below that of baseline levels. We use the term in much the same way as Monteith, Ashburn-Nardo, Voils, and Czopp (2002) did, as a way to indicate a momentary pausing to a particular response relative to other responses, rather than to a baseline response.

was mostly apparent when these participants had to press the negative (“dislike”) key for Black names, indicating an inhibition of negativity toward Blacks when people felt guilty about being prejudiced (Monteith et al., 2002). In addition, recent findings have also demonstrated that such an inhibition-of-negativity effect may occur when high MCPR people perform tasks measuring automatic prejudice (Devine et al., 2002), such that people high in internal motivation, but low in external motivation to control prejudice tend to automatically inhibit the Black + negative response on an evaluative priming measure (Devine et al., 2002)

Interestingly, a similar inhibition to the Black + negative response was observed in the current research, but only in one specific context (jail) where prejudice-related cues existed. Because this inhibition occurred within an evaluative priming paradigm, which has been shown to be a valid and reliable measure of automatic responses (Fazio et al., 1995), this indicates that the momentary inhibition to Black + negative responses in the current research was occurring automatically. Although our contexts remained on the screen constantly and allowed participants to consciously consider the salient context, the prime-target SOA in our procedure was 315 ms, less than the 500 ms-threshold at which judgments of targets is considered to occur automatically (e.g., Fazio et al., 1995; Neely, 1977; Posner & Snyder, 1975). Thus, while the contextual cues could be processed consciously or explicitly, participants’ responses to target Black and White faces within the context were automatic.

Study 2

The major goal for Study 2 was to rule out an alternative explanation for the results in Study 1. It is possible that for high MCPR participants, the jail context implied that Blacks have been taken advantage of by society (e.g., Wittenbrink, Gist, & Hilton, 1997). Thus the outgroup bias observed in Study 1 may have been a manifestation of more sympathetic automatic responses toward Blacks in jail than Whites in the jail context, rather than an inhibition of negative responses. Although analyses of simple effects in Study 1 speak against this possibility, a different context with less socially charged implications would help us rule out sympathy as driving our results. In order to do so, we sought another potentially prejudice-facilitating context in which Blacks could not be construed as victims of society, as they might be in the jail context.

The prejudice-relevant context we selected was a photograph of a deserted road bathed in dense fog (see Fig. 1). This setting was vague, but somewhat ominous given that the fog obscured visibility beyond several feet of the road. We assumed that any role implications of such a setting would not imply that Blacks had been

mistreated by society, and would help us rule out sympathy as an explanation for the results in Study 1. However, people encountered in such a setting might be construed as dangerous or threatening, consistent with the general negative stereotype of Blacks as more threatening than Whites (e.g., Devine & Elliot, 1995), leading to the possibility of prejudiced responses. Following the automatic measure in Study 2, questions assessing the threatening aspects of the foggy street context were assessed to determine the empirical validity of our assumptions.

A second, more minor goal for Study 2 was to assess the generalizability of the effects obtained in Study 1. It could be that the church context has certain specific attributes that are particularly amenable to non-prejudiced responses, such as religious ideas concerning universal brotherhood and compassion for others. However, it may also be the case that positive settings in general that have no negative implications for Blacks and Whites may tend to elicit egalitarian automatic responses. In addition, the jail context might have certain specific cues that are most conducive to inhibition for high MCPR participants; thus, it was important to replicate the inhibition effect in a different context, in this case a foggy street context. To explore whether positive settings in general are able to elicit egalitarian responses, we selected a different positive setting in Study 2. This setting was of a path meandering through a flower garden on a sunny day (see Fig. 1), a context we assumed to be as positive as the church context in Study 1.

Thus, Study 2 involved two contexts: a foggy street, which served as our prejudice-relevant context, similar to the prison in Study 1, and a garden, which served as our positive, egalitarian context, analogous to the church from Study 1.

Method

Participants

Ninety-eight male and female introductory psychology students were again recruited from the Ohio State University participant pool in the same manner as in Study 1. Data from 20 participants who were members of ethnic minority groups was not analyzed, as were the data from 2 participants who experienced computer malfunctions, and 3 participants whose error rates approached 50%. This left the data from 73 White participants for formal analysis.

Stimulus materials

Faces and target adjectives were identical to those used in the previous study. Two visual contexts were used in Study 2: a garden and a foggy street context. To empirically validate our ideas concerning the presence of negativity/positivity for each setting, participants

evaluated these contexts, as well as the jail context from the previous study, on several dimensions following the evaluative priming measure. Mean overall evaluation of each context was obtained by averaging four items (good/bad, like/dislike, beneficial/harmful, and acceptance/disgust) rated on 9-point semantic differential scales. Two ratings of feelings of threat were also taken, each based on a single item rated from 1 to 9 (extremely safe–extremely threatened). The items assessed how threatened the participant felt looking at the context itself, and how threatened they felt by the people they might encounter in the context. The jail context and foggy street context were rated as equally threatening, but when asked about how threatening individuals would be in the context, the jail received significantly higher threat ratings than the foggy street, although both contexts were rated as significantly higher than the mean of 5, as well as significantly higher than the garden (see Table 2). The ratings of the garden indicated that it was perceived as an extremely unthreatening context, and that individuals encountered in this context were also unthreatening. The ratings of these three contexts are summarized in Table 2.

Procedure

The procedure was identical to that of Study 1, with the exception that the garden and foggy street contexts replaced the church and jail contexts. Contexts were displayed in counterbalanced order, and faces and adjectives were also completely counterbalanced within and across contexts. This resulted in a 4-way (MCPR \times context \times race of prime \times adjective valence) mixed factorial design, with MCPR as a between-subjects variable, and context, prime, and target adjective as within-subjects variables.

Results

Motivation to control prejudice and context effects

A Cronbach's α coefficient of .81 was obtained for responses on the MCPR scale, indicating satisfactory internal consistency. Criteria for the modification or exclusion of errors and outliers were the same as those used in the previous study, and again rates were very low.

Facilitation scores were computed in the same manner as in Study 1, and the same 4-way (MCPR \times context \times race of prime \times adjective valence) mixed-factorial ANCOVA was conducted.

Within the overall analysis, a main effect for adjective valence was significant, such that participants showed more facilitation to negative rather than positive adjectives, $F(1, 71) = 5.96, p = .017, \eta^2 = .023$. In addition, a 3-way, context \times prime \times adjective interaction was also significant, $F(1, 71) = 5.21, p = .026, \eta^2 = .074$, such that overall evaluative responses differed depending on the context. No other lower order effects were significant. However, a significant 4-way (MCPR \times context \times race \times adjective) interaction emerged, $F(1, 71) = 4.46, p = .038, \eta^2 = .059$, indicating that MCPR and context interacted to produce significant moderation of automatic evaluative responses across contexts. Similar to the results from Study 1, the 3-way (MCPR \times race \times adjective) interaction was not significant in the positive context, the garden, $p > .41$, but was significant in the threatening context, the foggy street, $F(1, 71) = 14.84, p < .001, \eta^2 = .186$, suggesting that MCPR moderated automatic responses in the foggy street context but not the garden context.

Ingroup/outgroup bias within contexts

As in Study 1 an index of bias was computed to further investigate the relationship between MCPR and automatic responses in each context. These analyses revealed that automatic responses in the foggy street context were significantly correlated with MCPR scores, $r(73) = .23, p = .046$, whereas responses in the garden context were not, $r(73) = -.08, p > .47$. Responses in the garden and foggy street contexts were not significantly correlated with each other, $r(73) = .179, p > .12$. Thus, the higher participants' MCPR scores were, the less negative automatic responses were to Blacks relative to Whites in the foggy street context, although there was no relationship between MCPR and automatic responses in the garden context.

Automatic responses were then investigated for people high and low in MCPR within each context. As in Study 1, these analyses were performed as a regression, with bias examined at 1.5 *SD* above and below the mean for MCPR. The results from these analyses indicated no

Table 2
Ratings of contexts, Study 2

| Scale | Context | | | | | |
|----------------|----------|-----------|-------------------|-----------|-------------------|-----------|
| | Garden | | Foggy street | | Jail | |
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Evaluation | 8.15 | 1.57 | 3.08 | 1.56 | 2.06 | 1.64 |
| Overall threat | 1.43 | .568 | 7.30 _a | 1.37 | 7.47 _a | 1.85 |
| Person threat | 1.73 | .639 | 7.00 | 1.86 | 8.13 | 1.61 |

Note. Significant differences between contexts were measured based on paired-samples *t* tests ($p < .05$), means within each scale were all significantly different with the exception of the two means indicated by a subscript. Scales all ranged from 1 to 9, with 1 being very negative or non-threatening, and 9 being very positive or very threatening.

significant effects in the garden context, $ps > .22$. However, within the foggy street context, low MCPR participants showed a significant amount of ingroup bias, $t(71) = -3.098$, $p = .003$, whereas high MCPR participants showed a significant amount of outgroup bias, $t(71) = 3.327$, $p = .001$. These results replicate those from the jail context in Study 1 (see Fig. 3).

Simple effects

Simple effects analyses were then carried out to examine changes in specific responses within and across contexts. Within-context indexes and cross-context indexes were generated in the same manner as in Study 1. The results indicated that low MCPR participants showed significantly more facilitation to the White + positive cell than the Black + positive cell in the street context, $t(71) = 2.996$, $p = .004$. For high MCPR participants, there was significantly less facilitation to the Black + negative cell than the White + negative cell in the street context, $t(71) = 2.435$, $p = .018$. No other within-context effects were significant.

Analyses of simple effects were then carried out across contexts. The results indicated no significant simple effects for low MCPR participants, although there was a marginal effect for the Black + positive cell, such that low MCPR participants showed marginally more facilitation for Black + positive in the garden than in the jail, $t(71) = 1.871$, $p = .066$. However, as in Study 1 high MCPR participants again showed significantly less facilitation to the Black + negative response in the foggy street context than in the garden context, $t(71) = 2.121$, $p = .038$. There was an additional marginal effect, such that high MCPR participants showed marginally more facilitation to White + positive than Black + positive in the garden context, $t(71) = 1.714$, $p = .091$. No other cross-context simple effects were significant for high MCPR participants (see Table 1). Thus, similar to the results from Study 1, the ingroup bias for low MCPR participants was mostly due to a decrease in facilitation to the Black + positive response in the threatening con-

text (foggy street), while the outgroup bias on the part of high MCPR participants was largely due to significantly less facilitation to the Black + negative response both within the foggy street context (as compared to negative responses to Whites) as well as less facilitation to Black + negative in the foggy street as compared to the garden context.

Discussion

The results from Study 2 suggest that the outgroup bias on the part of high MCPR participants was not the result of sympathetic responses toward Blacks. A significant automatic outgroup bias occurred in Study 2 even when the negative context (foggy street) was not suggestive that Blacks were victims of society. As in Study 1, this outgroup bias occurred only in the context where low MCPR participants demonstrated an ingroup bias toward Whites. Simple effects analyses indicated that the ingroup bias by low MCPR participants was mainly the result of relatively less positivity toward Blacks in the street context, consistent with previous research (Barden et al., 2004; Wittenbrink et al., 2001a). In addition, the fact that the outgroup bias for high MCPR participants was driven by a inhibition of negative responses toward Blacks, evidenced by a decrease in facilitation to the Black + negative pairing within and between contexts, is consistent with the idea that high MCPR individuals were controlling or avoiding negativity toward Blacks in the specific context that elicited automatic prejudice from low MCPR individuals. The foggy street context was rated as quite threatening, and targets themselves were also rated as threatening. Thus, both the jail and the foggy street context implied that the people in them could be considered to have traits consistent with the negative stereotype of Blacks (i.e., hostile, dangerous, or violent), and these cues induced different automatic responses based on participants' levels of MCPR. Also, consistent with our previous findings, no moderation was exhibited in our garden setting as a function of MCPR, suggesting that positive settings in general that do not have negative implications for Blacks or Whites may tend to elicit egalitarian automatic responses.

Study 3

The goal for Study 3 was to further narrow the exact type of contextual cue responsible for the effects in the current research. One possibility is the relevance of the prison and foggy street contexts to the negative stereotype of Blacks. In both situations target people were rated as threatening, a factor consistent with the current negative stereotype of Blacks in America (Devine, 1989; Devine & Elliot, 1995). A second possibility is

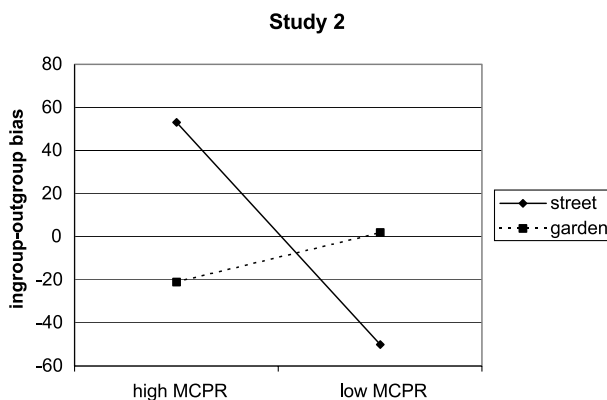


Fig. 3. Automatic responses for high and low MCPR participants, Study 2.

Table 3
Ratings of contexts, Study 3

| Scale | Context | | | | | |
|---------------------|-----------|-----------|-------------------|-----------|-------------------|-----------|
| | Classroom | | Tornado | | Jail | |
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Evaluation | 6.85 | 1.91 | 3.17 _a | 2.20 | 2.57 _a | 2.13 |
| Situation threat | 2.41 | 1.14 | 7.42 _a | 1.67 | 7.00 _a | 1.78 |
| Person threat | 2.29 | 1.50 | 5.32 | 2.15 | 7.52 | 1.80 |
| Stereotype presence | 5.75 | 2.02 | 2.27 | 2.06 | 7.76 | 1.83 |

Note. Significant differences between contexts were measured based on paired-samples *t* tests ($p < .05$), means within each scale were all significantly different with the exception of the means indicated by a subscript. Scales all ranged from 1 to 9, with 1 being very negative, non-threatening, or not present, and 9 being very positive, very threatening, or very present.

contextual threat by itself, since both the prison and foggy street were threatening settings, and a general feeling of threat may be the critical contextual cue responsible for our effects. A third possibility is that threat emanating specifically from the *people* in a particular situation is cuing different automatic responses for high and low MCPR individuals.

To separate out these three elements, we sought three different contexts for Study 3. For the person-threat context, we chose to include the same jail context used in Study 1. In the evaluations taken in Study 2, this context was rated highest in terms of person threat. In line with the results from Studies 1 and 2, we predicted that high MCPR individuals would again inhibit negativity toward Blacks, leading to an outgroup bias, while low MCPR participants should show the opposite pattern of ingroup bias. For the non-threatening, stereotype-relevant context, we chose a picture of a classroom (see Fig. 1). An academic setting is related to the negative stereotype of Blacks as poorer academically than Whites, but the situation itself is not threatening. Thus, if our effects are based on contextual congruence with a negative stereotype of Blacks independent of threat, then responses in the classroom should mirror those in the jail. For the threatening, but non-person relevant context, we chose a photograph of a tornado moving across an open field. In this situation, the threat is clearly emanating from an approaching funnel cloud, and little threat could be construed as coming from any people in this situation (see Fig. 1). To eliminate any socio-economic cues, no buildings were visible in this photograph. Thus, if a feeling of threat in general is the relevant contextual cue, then we should replicate our ingroup/outgroup bias effects in the tornado context.

To validate our ideas concerning the relevant contextual cues, the three contexts were pre-tested in an independent sample of 57 participants to determine, (1) the overall evaluation of the setting, (2) the degree of threat emanating from the context itself, (3) the degree to which people in the situation could be construed as threatening, and (4) the degree to which negative stereotypes about Blacks are relevant to each situation. Results for these context ratings were as predicted, with

both the tornado and prison being evaluated negatively, whereas the classroom was evaluated significantly more positively than both (see Table 3 for a summary of situation ratings). In addition, the tornado and jail were rated as equally threatening situations, both of which were significantly more threatening than the classroom. In terms of person threat, however, the jail was rated significantly higher than the tornado, which was rated significantly higher than the classroom. The classroom and jail ranked high on presence of negative stereotypes for Blacks, both significantly higher than the tornado.⁸

Method

Participants, stimulus materials, and procedure

Ninety-five introductory psychology students were again recruited from the Ohio State University participant pool in the same way as in the previous studies. The data from 19 non-White students were excluded, plus the data from 6 participants whose error rates approached 50%, leaving 70 participants for formal analysis. Faces and target adjectives were identical to those used in the previous studies. Three visual contexts were used: the classroom, the tornado, and the prison. These contexts were presented in random order. This resulted in a 4-way (MCPR \times context \times race of prime \times adjective valence) mixed factorial design.

Results

Motivation to control prejudice and context effects

A Cronbach's α coefficient of .77 was obtained for responses on the MCPR scale, indicating satisfactory internal consistency. As in Studies 1 and 2, a 4-way (MCPR \times context \times race of prime \times adjective valence) mixed-factorial ANCOVA was then carried out as our main analysis. Within this overall analysis, there was an overall main effect for word valence, indicating that participants showed more facilitation to negative than

⁸ A comparison with the context rating data from Study 2 revealed that the foggy street was also rated as significantly higher in person threat than was the tornado in Study 3, $t(66) = 5.11$, $p < .001$.

positive words, $F(1, 68) = 8.85, p = .004$. No other lower order effects were significant. Of most interest, the overall 4-way interaction was again significant, $F(2, 136) = 3.06, p = .050, \eta^2 = .043$, indicating that once again MCPR and context interacted to produce significant moderation of automatic evaluative responses across contexts. Analyses of the 3-way, $\text{MCPR} \times \text{race} \times \text{adjective}$ interactions revealed that MCPR moderated automatic responses in the jail context, $F(1, 68) = 5.93, p = .017, \eta^2 = .080$ but not in the tornado ($p > .16$) or the classroom contexts ($p > .52$).

Ingroup/outgroup bias within contexts

Analyses of responses within each context revealed that automatic evaluative responses in the jail context were again significantly correlated with overall MCPR scores, $r(70) = .28, p = .017$, whereas automatic responses in the tornado context, $r(70) = .17, p > .16$, and in the classroom context, $r(70) = -.08, p > .50$, were not significantly correlated with MCPR. Cross-contextual correlations were not significant, although the correlation between automatic responses in the jail and tornado context was marginal, $r(70) = .22, p = .068$. These analyses provide additional evidence that overall, MCPR moderated responses in the jail context, but not in the tornado or classroom context.

Automatic responses were then investigated for people high and low in MCPR within each context. The results from these analyses indicated no significant effects in the classroom context, $ps > .13$. However, within the tornado context, low MCPR participants showed a significant amount of ingroup bias, $t(68) = -2.646, p = .010$. However, high MCPR participants did not show bias in the tornado context, $p > .75$. Finally, in the jail context low MCPR participants showed a significant amount of ingroup bias, $t(68) = -2.046, p = .046$, while high MCPR participants showed a significant outgroup bias, $t(68) = 2.016, p = .048$. Thus, low MCPR participants showed ingroup biases in both the tornado and jail context, while high MCPR participants showed outgroup biases only in the jail and not in the tornado or classroom contexts (see Fig. 4).

Simple effects

Simple effects analyses were then carried out to examine changes in specific responses within and across contexts. As in Study 1 and Study 2, these analyses were performed as a regression, with bias examined at 1.5 *SD* above and below the mean for MCPR. The results indicated that low MCPR participants showed marginally more facilitation to the Black + negative cell than the White + negative cell in the jail context, $t(68) = -1.864, p = .067$, and marginally more facilitation to the Black + negative than the White + negative response in the tornado context, $t(68) = -1.976, p = .052$. For high MCPR participants, there was significantly less facilitation

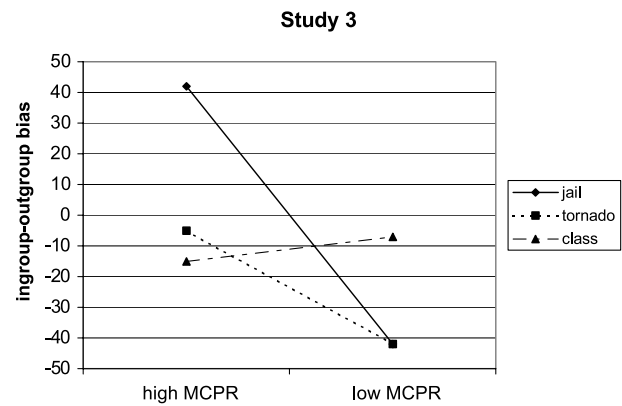


Fig. 4. Automatic responses for high and low MCPR participants, Study 3.

to the Black + negative cell than the White + negative cell in the jail context, $t(68) = 2.954, p = .004$. No other within-context effects were significant ($ps > .12$).

Analyses of simple effects were then carried out across contexts. The results indicated no significant simple effects for low MCPR participants ($ps > .18$). However, as in Study 1 and Study 2 high MCPR participants showed significantly less facilitation to the Black + negative response in the jail context compared to the classroom context, $t(68) = 2.221, p = .030$, and marginally less facilitation to Black + negative in the jail context than in the tornado context, $t(68) = 1.862, p = .067$. No other simple effects were significant for high MCPR participants ($ps > .22$). Thus, similar to the results from Study 1 and Study 2, the outgroup bias on the part of high MCPR participants was largely due to a decrease in facilitation to the Black + negative response both within and between contexts (see Table 1). However, the decrease in the Black + positive response for low MCPR participants that was found in Studies 1–2 did not replicate in any of the contexts in Study 3; thus, the reliability of this effect is questionable.

Discussion

Results from Study 3 are consistent with the idea that *person threat* is the integral cue that triggers high MCPR people to show an outgroup bias in favor of Blacks versus Whites, and to automatically inhibit negative responses toward Blacks. For high MCPR participants inhibition of Black + negative responses and outgroup bias occurred only in the context in which targets themselves could be construed as threatening (jail). Inhibition and outgroup bias did not occur in contexts where only general contextual threat was present (tornado), or when a negative stereotype existed in the absence of person threat (classroom).

Interestingly, no systematic simple effects emerged for low MCPR participants, suggesting that the ingroup bias

results from a combination of the four responses, rather than systematic differences from any single response. In addition, low MCPR participants not only showed a significant amount of ingroup bias in the prison, they also showed an ingroup bias in the tornado context, suggesting that the automatic ingroup bias on the part of low MCPR participants may be cued by contextual threat alone, whereas outgroup bias and inhibition of the Black + negative response for high MCPR participants seem to be cued by person threat. This suggests that the ingroup and outgroup biases are separate, rather than parallel processes, as well as suggesting differential sensitivity to contextual cues depending on MCPR. The ingroup bias in the tornado context suggests that a general feeling of threat is enough to cue an automatic ingroup bias by low MCPR participants, a finding somewhat congruent with a Terror Management Theory perspective, which has demonstrated that enhanced ingroup bias effects occur when one's mortality is salient (Greenberg, Solomon, & Pyszczynski, 1997).

On the other hand, contextual threat per se (tornado) did not induce inhibition of negativity and an outgroup bias for high MCPR participants, nor did a context which contained congruence with a negative stereotype of Blacks (classroom). Rather, high MCPR participants only inhibited negative responses toward Blacks when the *individuals in the context* could be construed as threatening. The primacy of the person-threat cue is consistent with a variety of previous research demonstrating that emotions or affect toward target persons is a better predictor of evaluative prejudice than are beliefs or stereotypes (DeSteno, Dasgupta, Bartlett, & Caidric, 2004; Haddock, Zanna, & Esses, 1993; Jussim, Nelson, Manis, & Soffin, 1995; Stangor, Sullivan, & Ford, 1991). Thus, the fact that neither ingroup or outgroup biases emerged in the classroom context implies that person-threat may be a more meaningful (or a stronger) prejudice cue than stereotype congruence. While the element of threat was also present in the tornado context, threat was clearly not related to targets, and thus seemed less likely to be considered prejudice-inducing. Results from Study 3 are also consistent with recent research that has demonstrated that contexts related to person threat (i.e., a dark room) are especially relevant prejudice-inducing cues (Schaller, Park, & Mueller, 2003). Thus, as the opening quote from Jesse Jackson suggests, this *feeling of threat from people* may be the strongest or most relevant contextual cue to induce or avoid prejudice at the automatic level.

General discussion

Whereas previous research has shown that contextual cues can moderate automatic evaluative responses, the present research addressed the potential interaction be-

tween context and a highly relevant individual difference measure—motivation to control prejudice—on automatic responses toward Blacks and Whites. Taken as a whole, our findings suggest that automatic responses of people high and low in MCPR differ depending on the salient context cues. In Study 1, no automatic biases were observed when a church context was presented in an evaluative priming procedure; however, in a jail context, low MCPR participants showed an automatic ingroup bias, while high MCPR participants showed an outgroup bias, which was driven by an inhibition of the Black + negative response both within and between contexts. In Study 2, this simultaneous ingroup/outgroup bias effect was replicated in the foggy street context. In Study 3, person threat was identified as the contextual cue triggering inhibition of the Black + negative response. High MCPR participants showed an outgroup bias only when the context implied that targets themselves were threatening (jail); however low MCPR participants showed an ingroup biases whenever contextual threat was present (jail, tornado).

Across all studies the outgroup bias exhibited by high MCPR participants was driven primarily by an inhibition of negativity toward Blacks, strongly suggesting that this inhibition was a strategy to control or prevent prejudice. This interpretation is bolstered by the fact that the inhibition of negativity toward Blacks was only demonstrated by people who were, by definition, highly motivated to control prejudice. Thus, as illustrated in the opening quote by Jesse Jackson, situations that imply threat from people—such as a jail, a ghetto, an ominous foggy street, or the middle of a dark alley—may activate MCPR. Indeed, such contexts seem to serve as a prejudice-control cue for high MCPR participants, leading them to automatically inhibit negative responses toward Blacks in such situations.

Although high MCPR participants did not show prejudice in any contexts in this research, the inhibition of the Black + negative response is strongly suggestive that prejudice may have been a concern or possibility in jail and foggy street contexts. That these contexts could potentially lead to prejudice was demonstrated by the fact that low MCPR participants *did* show automatic ingroup biases in these same contexts. In addition, it is important to note that previous research has demonstrated that people are often unaware of the extent to which they may hold judgmental biases, particularly at the automatic level, and that steps to prevent such biases are often uncalibrated and inaccurate given the level of actual bias (e.g., Wilson & Brekke, 1984). Indeed, in contexts where the possibility of bias is suspected, people have been shown to correct for a suspected bias even when none actually existed (e.g., Petty, Wegener, & White, 1998). Attempting to inhibit or prevent a bias that does not exist can produce a reverse bias, as observed in the current research. Regardless of whether

high MCPR participants may or may not have been prejudiced in these contexts, it seems clear that the Black+negative response was one that these individuals wished to prevent.

The particular inhibition of negativity effect has been obtained before in similar paradigms (Devine et al., 2002; Monteith et al., 2002). However, although our results are quite consistent with those of Monteith and Devine and their colleagues, the present research adds to these previous findings. First, our studies are the first to explore how MCPR and context can interact to produce differences in automatic evaluative responses. Second, we were able to isolate the specific contextual cues (person-threat versus contextual threat or stereotype congruence) that lead to differential automatic responses for high and low MCPR people. Third, the current research is among the first to obtain simultaneous automatic ingroup/outgroup bias effects within the same sample of White participants. Fourth, in addition to the Devine et al. (2002) research, the current research is the only demonstration to date that MCPR can affect automatic prejudice. Last, establishing that the relationship between MCPR and automatic responses is context dependent also provides an explanation for why this relationship has not been found more frequently in the past.

Taken together, our results are consistent with the idea that high MCPR participants are especially sensitive to situations where people can be construed as threatening, and that control strategies to avoid prejudice in such situations have become automatized. It is possible that high MCPR people may have at one time felt guilty about prejudiced responses in contexts where they felt threatened by Blacks, yet over time continuously tried to inhibit negativity toward Blacks as a control strategy in such situations. Such individuals may have practiced enough to where relevant situations now automatically trigger this inhibition. Research on practice effects suggests this type of automatization of a desired response through practice is indeed possible (Kawakami, Dovidio, Moll, Hermsen, & Russin, 2000). Perhaps, then, in situations that elicit prejudice, high MCPR individuals have gone through the process of saying “no” over and over to their initial negative reactions toward Blacks, making themselves respond less and less negatively in the offending situations. Over time, this extensively practiced response became automatic, such that contexts that imply potential prejudice now automatically trigger a personal goal not to be prejudiced, as well as specific strategies to carry out this goal. In addition, the context and action-specific nature of our results are especially consistent with research on implementation intentions (Gollwitzer, 1999). Rather than having the vague, general goal to be non-prejudiced, high MCPR people may have decided to create the specific implementation intentions not to respond

negatively toward Blacks, not as a vague, general response, but as a specific response in situations that are especially prejudice-inducing. Thus, contexts in which targets appear to be threatening may automatically activate this goal, leading to the avoidance of prejudice via inhibition of negative responses.

The fact that high MCPR participants showed outgroup biases in various contexts in this research suggests an additional explanation for our results—this outgroup bias may indicate that MCPR participants were automatically *overcorrecting* their responses to avoid prejudice in the prison and foggy street (e.g., Wegener & Petty, 1997). In fact, there is a variety of evidence that high MCPR overcorrect their racial attitudes on explicit measures to compensate for automatic prejudice (Dunton & Fazio, 1997; Olson & Fazio, 2004; Towles-Schwen & Fazio, 2003). In the current research, the contextual cue of person-threat may have triggered a sort of “bias detector” on the part of high MCPR people, leading them to try to correct for any bias to which they might have been prone. The outgroup bias toward Blacks is indeed suggestive of an automatic *overcorrection* to avoid prejudice in the jail and foggy street, with participants correcting their responses more than was necessary to avoid prejudice. Particularly since low MCPR participants demonstrated automatic prejudice in these same contexts, race bias was obviously an issue. However, it remains to be seen whether high MCPR individuals did feel prone to bias, and therefore were automatically correcting their responses to avoid any prejudice they may have felt susceptible to.

The present research also offers one possible explanation for the disparity typically observed between automatic and explicit measures (e.g., Devine, 1989; Fazio et al., 1995; Greenwald et al., 1998). Contextual constraints may be necessary to get correspondence between the two. By their nature, explicit measures often ask specific questions concerning one’s racial attitudes and motivations, and are typically dependent on respondents imagining contexts in which they would be susceptible to making prejudiced responses. However, the typical automatic measure has, until recently, been context-free. Our results do suggest that correspondence between automatic and explicit responses may be possible given similar contextual constraints between measures.

Finally, although the results from the foggy street and jail contexts are the most intriguing, no less important are the findings in the church, garden, and the classroom. These suggest that regardless of one’s motivation to be non-prejudiced, the presence of relatively positive situations tends to elicit egalitarian responses, even at the automatic level. The implications may be important for fostering benign interracial interactions, and for reducing prejudice. Should interracial interactions take place in generally positive environments, such positivity may go a long way toward leaking into the interpersonal

realm. Thus, in the long-term, linking interracial interactions to positive situations may turn out to be a successful prejudice-reduction strategy.

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