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From Automatic Antigay Prejudice to Behavior: The Moderating Role of Conscious Beliefs About Gender and Behavioral Control

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Two experiments tested whether the relation between automatic prejudice and discriminatory behavior is moderated by 2 conscious processes: conscious egalitarian beliefs and behavioral control. The authors predicted that, when both conscious processes are deactivated, automatic prejudice would elicit discriminatory behavior. When either of the 2 processes is activated, behavioral bias would be eliminated. The authors assessed participants' automatic attitudes toward gay men, conscious beliefs about gender, behavioral control, and interactions with gay confederates. In Experiment 1, men's beliefs about gender were heterogeneous, whereas women's beliefs were mostly egalitarian; men's responses supported the predictions, but women's responses did not. In Experiment 2, the authors recruited a sample with greater diversity in gender-related beliefs. Results showed that, for both sexes, automatic prejudice produced biased behavior in the absence of conscious egalitarian beliefs and behavioral control. The presence of either conscious process eliminated behavioral bias.

Keywords: implicit social cognition, automaticity, attitudes toward homosexuals, prejudice, gender roles

The nature of prejudice in the United States has changed substantially in the past century. Attitudes and behavior toward several disadvantaged groups, especially racial minorities and women, have become significantly more tolerant (Cafferata, Horn, & Wells, 1997; Dovidio, 2001; Huddy, Neely, & Lafay, 2000; Schuman, Steeh, Bobo, & Kryson, 1997). Even in the case of sexual minorities, public opinion polls indicate that people are relatively supportive of basic civil rights for gays and lesbians (Herek, 2000; Sherrill & Yang, 2000; Yang, 1997), and their attitudes, at least within certain demographic groups (e.g., younger and educated populations), have become less negative over the past few decades (Herek, 1984; Herek & Capitanio, 1996). Despite these sweeping changes in attitudes, subtle forms of discrimination continue in many areas of everyday life, including employment, housing, health care, and the justice system (Badgett, 1996; Ellis & Riggle, 1996; Hebl, Foster, Mannix, & Dovidio, 2002; Portwood, 1995; Ridgeway, 1997; Rubenstein, 1996; Rudman & Glick, 2001; Stohlberg, 2002).

In recognition of the changing nature of prejudice, social psychologists have responded with new theories and evidence that highlight subtle forms of prejudice and discrimination (Dovidio, 2001; Fazio & Towles-Schwen, 1999; Gaertner & Dovidio, 1986; Greenwald et al., 2002). As a case in point, theories of automatic prejudice focus on negative attitudes toward outgroups that may become spontaneously activated in memory without perceivers' awareness or control (for reviews, see Dasgupta, 2004; Fazio & Towles-Schwen, 1999; Greenwald & Banaji, 1995; Wilson, Lindsey, & Schooler, 2000). These automatically activated attitudes have the capacity to shape behavior in significant ways.

The pernicious impact of automatic prejudice on behavioral outcomes was first demonstrated in a 1995 study by Fazio and colleagues (Fazio, Jackson, Dunton, & Williams, 1995). Several related publications followed closely on the heels of the first report (Dovidio, Kawakami, & Gaertner, 2002; Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; McConnell & Leibold, 2001; for a review, see Dasgupta, 2004). Collectively, these demonstrated that automatic racial attitudes predict people's subtle behavior toward racial minorities better than controlled attitudes, especially when the behaviors involve nonverbal and paralinguistic responses that people are typically unaware of, unable to control, or not motivated to control (e.g., eye contact, body posture, speech errors).

Moderators of the Link Between Automatic Prejudice and Discriminatory Behavior

Although automatically activated prejudice can bias behavior, this effect is not obligatory; it depends on how aware people are of the possibility of bias, how motivated they are to correct potential

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bias, and how much control they have over their judgment or behavior. Just as automatic attitudes have been found to be remarkably malleable (e.g., Dasgupta & Asgari, 2004; Dasgupta & Greenwald, 2001; Wittenbrink, Judd, & Park, 2001; for a review, see Blair, 2002), so too behaviors are likely to be quite malleable depending on the extent to which motivation and control are at play.

Motivation as a Moderator of the Link Between Automatic Prejudice and Discrimination

The role of motivation in moderating the link between automatic attitudes and behavior was first proposed by Fazio (1990), who argued that, when people have the motivation and opportunity to be mindful, their controlled attitudes are likely to override their automatic attitudes to predict behavior. However, when people lack the motivation or opportunity to be mindful, automatically activated attitudes ought to be the primary predictor of behavior. Consistent with this idea, Dunton and Fazio (1997) found that, among participants who were not motivated to control prejudice, stronger automatic prejudice predicted less favorable judgments of a Black college student. However, among those who were highly motivated to control prejudice, stronger automatic prejudice predicted more favorable judgments of the same student, suggesting that motivated participants were overcorrecting their judgment to avoid potential bias (see also Olson & Fazio, 2004; Towles-Schwen & Fazio, 2003). These studies illustrate that the influence of automatic prejudice on social judgment is conditional upon people's motivation to be nonprejudiced. Other research has focused on differentiating the source of motivation—whether it emanates from the desire to adhere to one's personal standards or to social normative standards (Plant & Devine, 1998). Taken together, the extant research has articulated the role of intrinsic versus extrinsic motivation to be nonprejudiced and has examined the influence of these motivations on self-reported judgments and emotions directed at racial minority groups.

Conscious Egalitarian Beliefs as a Source of Motivation

People's motivation to be nonprejudiced is often rooted in their consciously held beliefs and values about egalitarianism. If so, strongly held egalitarian beliefs ought to provide the motivation to attenuate the impact of automatic prejudice on behavior. For example, people who hold egalitarian beliefs about gender roles are motivated to reject gender-based societal demarcations that prescribe "appropriate" roles, behavior, personality, appearance, and (hetero)sexuality for women and men, which in turn, ought to influence their behavior toward gender-nonconforming individuals (e.g., gay men). By contrast, others who hold traditional beliefs about gender roles are motivated to preserve gender-based demarcations between men and women because they view these as beneficial to society rather than instances of unfair discrimination (Bem, 1981, 1984; Deaux & Kite, 1987; Deaux & Lewis, 1984; Kite & Deaux, 1987). Some research suggests that endorsement of gender-based inequalities is linked to people's own gender identity (Spence, 1993). Those who believe that traditional gender norms are fair and ought not to change are more likely to describe their own self-concept in a traditionally masculine (for men) or feminine (for women) manner, compared with others who reject traditional gender norms as unfair and requiring change. Moreover, people who endorse traditional beliefs are likely to feel threatened while interacting with gender-nonconforming individuals whose presence questions the cherished social order (Kite & Whitley, 1996; LaMar & Kite, 1998).

The present research contributes to the existing literature by testing whether conscious egalitarian beliefs about gender roles serve as a source of motivation to attenuate the relation between automatic prejudice and behavioral bias toward gay men. We assessed gender role beliefs using a newly developed measure that captures people's conscious commitment to reject or uphold normative gender roles and gender identity. Because this measure was tailored to assess beliefs about gender conformity, we expected it to predict people's motivations toward gender-nonconforming target groups better than other measures of motivation that have been validated specifically for racial groups and thus may not generalize to other groups (e.g., Dunton & Fazio, 1997; Plant & Devine, 1998).

In the present research, we also sought to extend previous research in a second important way. Past studies on the effect of motivation on prejudice-related outcomes have exclusively focused on clearly controllable outcomes, such as self-reported judgments (Dunton & Fazio, 1997; Olson & Fazio, 2004) and self-reported emotions in response to hypothetical situations (Plant & Devine, 1998; Towles-Schwen & Fazio, 2003). These studies did not examine whether motivation to be egalitarian can attenuate biases in spontaneous actions that have limited controllability, because they occur rapidly in real time with little attention from social actors. We sought to fill this gap in the literature by focusing specifically on participants' spontaneous nonverbal and paralinguistic actions during interactions with outgroup members that were evaluated by third-party observers, not by social actors themselves. Our goal was to test whether people's conscious motivation to be egalitarian can circumvent the impact of automatic prejudice on subtle behavior toward stigmatized others.

Behavioral Control as a Moderator of the Link Between Automatic Prejudice and Discrimination

Behavioral control refers to individuals' ability to monitor and modify their public behavior to fit with prevailing social norms or to ease social interactions independent of their conscious endorsement or nonendorsement of egalitarian ideals. People vary widely in the degree to which they are aware of and able to control their subtle behavior. For example, consider nonverbal and paralinguistic cues such as smiling, eye contact, spatial distance, and friendliness toward interaction partners. Some people are relatively unaware of the nonverbal cues they communicate and are unskilled at correcting them, whereas others are remarkably aware of and practiced at controlling such body language.

Most of the research on behavioral control has been conducted within the framework of self-monitoring theory, which refers to individual differences in expressive control and impression management in public situations (Gangestad & Snyder, 2000; Snyder, 1974; Snyder & Gangestad, 1986). However, the measure derived from self-monitoring theory does not specifically assess individual differences in the ability to control subtle nonverbal and paralinguistic cues that people express spontaneously in social interactions (e.g., facial expressions, body posture, eye contact). In addi-

tion, the self-monitoring measure does not assess behavioral control in the context of interactions across group boundaries. Because the present research is geared toward understanding subtle forms of behavioral discrimination toward outgroup members, we developed a three-item measure to assess people's awareness of and control over their subtle behavior during interactions with outgroup members (in this case, gay men).

Overview of the Present Research

Our primary goal in the present studies was to identify the conditions under which automatic prejudice in the mind translates into behavioral discrimination. We predicted that two conscious processes will influence the strength of association between automatic prejudice and behavior: (a) people's motivation to be egalitarian on the basis of their conscious beliefs and (b) their control over subtle behavioral cues. When both conscious processes are deactivated (i.e., when individuals are not motivated by egalitarian beliefs and cannot control their subtle behavior), a strong connection will emerge between automatic attitudes and behavior. That is, automatic prejudice will result in biased behavior. In contrast, when either of the two conscious processes—egalitarian motivation or behavioral control—is activated, the connection between automatic attitudes and behavior will be short-circuited. That is, automatic prejudice in the mind will no longer result in biased behavior. Our prediction is similar to Fazio and colleagues' model on motivation and opportunity as determinants of behavior (MODE model), which proposes that either conscious motivation or opportunity to control one's responses ought to eliminate the effect of automatic attitudes on self-reported judgments and behavior (for reviews, see Fazio, 1990; Fazio & Towles-Schwen, 1999). Studies conducted by Fazio and colleagues testing the MODE model have demonstrated that motivation moderates the link between automatic attitudes and self-reported judgments (Dunton & Fazio, 1997; Olson & Fazio, 2004; Towles-Schwen & Fazio, 2003); however, these studies have not examined whether opportunity to control one's responses has a similar moderating effect. Moreover, these studies have focused on outcome variables that were self-reported and deliberative rather than spontaneous.

Our hypotheses were based on the logic that conscious processes such as egalitarian motives and behavioral control ought to exert an effect on the behavioral output at the "downstream end" of the attitude–behavior relation. People who are highly motivated to uphold egalitarian beliefs about gender roles are likely to be mindful in social interactions with gay men. As such, their behavior toward gay men is predicted to be positive regardless of any automatic attitudes they acquired passively by immersion in the larger society. Similarly, people who are highly practiced at controlling their subtle behaviors are also likely to convey positive behavioral cues to ease social interactions with gay individuals regardless of their automatic attitudes. However, people who are not motivated by egalitarian beliefs and not able to control their actions online are predicted to be most susceptible to act in accordance with their automatic attitudes; the more antigay prejudice they harbor, the more discriminatory their actions will be.

We conducted two experiments to test our predictions. Experiment 1 was conducted in a small college town in Massachusetts. Although this experiment recruited a community sample, because the local population is politically liberal, we expected that participants would endorse relatively egalitarian beliefs about gender roles. This is particularly likely in the case of women (Eagly & Mladinic, 1989; Helmreich, Spence, & Gibson, 1982; Lottes, 1993; McBroom, 1987; Spence & Hahn, 1997; Stark, 1991) because the local community is home to several grass-roots feminist organizations and women's colleges. Given these demographic constraints, we anticipated that the male sample would provide a better test of our hypotheses than the female sample.

To provide a stronger test of our hypotheses, we conducted Experiment 2 in a large city where the population is more heterogeneous in terms of social beliefs about gender roles. This time, participants of both sexes who had low motivation and low control were expected to show a strong connection between automatic prejudice and antigay behavior. Other participants who had high motivation or high control over their actions were expected to exhibit positive behavior regardless of their automatic attitudes.

Experiment 1

Method

Participants

A community sample of 82 residents of a small town in Massachusetts (52 women, 30 men) participated in exchange for $15. We conducted recruitment using advertisements placed in community newspapers and flyers posted at local businesses. Of the participants, 71% were White, 9% were Black, 7% were Asian, 6% were Hispanic, 5% were multiracial, and 2% did not answer the question. Participants' ages ranged from 17 to 65 ($M = 26.12$ years, $SD = 11.98$). None of the participants identified as gay or lesbian; their mean self-rating was 9.99 on an 11-point scale on which 11 represented exclusive heterosexual identification.

Measures and Manipulations

Manipulation of confederates' apparent sexual orientation. Participants received information about each confederate's sexual orientation role, but the confederates remained unaware of the manipulated role to ensure that their behavior would not change inadvertently as a function of the role. Sexual orientation was manipulated between participants so that both confederates played both roles. Because the confederates rotated roles and because they remained unaware of their own role during any given experimental session, we were assured that any systematic differences in participants' behavior toward the gay versus straight confederate must be due to participants' perception of the confederates' sexual orientation rather than any other confounding variable.

Before the interviews, participants were given two folders, each of which included a photograph and a résumé that ostensibly belonged to the interviewer (confederate) whom they would meet shortly. Each résumé described the academic interests, work experience, and extracurricular activities of one of the two confederates. The two résumés were equated in terms of competence and likeability. Listed under extracurricular activities was a sentence indicating the confederate's involvement in a campus organization—he was described as a member of either the gay students' alliance at the university (gay role) or a campus fraternity (heterosexual role). In addition to counterbalancing confederates' sexual orientation, we also counterbalanced two other variables to ensure that they would not confound the results: the order in which participants encountered the individual confederates, and the order in which they encountered the allegedly gay versus heterosexual person. Finally, the confederates were similar in appearance, dress, attractiveness, race (both were White), and outward personality. They were trained to behave in a friendly and professional manner during the interviews.

Measurement of nonverbal behavior. Participants' nonverbal behavior toward each confederate was measured in two ways. First, each confederate rated participants' behavior toward him. Second, the interviews were also videotaped with a camera hidden among a pile of books and papers positioned on a bookshelf facing the participant's chair. These videotapes were later judged by two coders who were unaware of the experimental hypotheses and the manipulation of sexual orientation. Six dimensions were used to code behavior. These have been successfully used in past research as indicators of positive and negative nonverbal behavior toward others (DePaulo & Friedman, 1998; Dovidio et al., 1997; Fazio et al., 1995; LaFrance, 1985; McConnell & Leibold, 2001). Three of the items focused on specific behaviors: (a) how much eye contact participants made with each confederate, (b) how much they smiled, and (c) their body posture. Three other items focused on global behavior: (a) participants' overall friendliness, (b) how comfortable they appeared, and (c) how interested they appeared in the interaction. Coders and confederates rated all behaviors on 11-point scales ranging from *not at all* (1) to *very much* (11).

Measurement of automatic attitudes toward gay men. Participants' automatic attitudes toward gay men, compared with heterosexuals, were measured using an Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). The IAT is a computerized task that measures the relative strength with which two target groups (e.g., gays vs. heterosexuals) are associated with good versus bad concepts (represented by words such as *paradise* vs. *poison*) using response latency to operationalize attitude strength. Pictures of same- and different-sex couples were used to represent gay and heterosexual men. The stimuli were selected to ensure that the couples appeared to be lovers, not platonic friends.

Participants saw four types of stimuli presented one at a time on a computer screen (homosexual and heterosexual pictures, good and bad words). Their task was to categorize each stimulus using one of two designated response keys. Participants' response latencies are typically faster when highly associated pictures and words share the same key than when weakly associated pictures and words share the same key. Given the pervasive presence of antigay sentiments in U.S. society, we predicted that response latencies would be significantly faster when heterosexual and good stimuli shared one response key and when homosexual and bad stimuli shared the other response key. By contrast, response latencies would be substantially slower for opposite combinations of stimuli. The order in which these two stimulus combinations were administered was counterbalanced between participants.

Measurement of conscious beliefs about gender roles and gender identity. A review of the social psychological literature on gender-related beliefs revealed that most of the popular and well-validated measures focus on a few specific gender-related domains—mostly women's employment, heterosexual romantic relationships, and stereotypic personality traits (Glick & Fiske, 1996; Spence & Hahn, 1997; Spence & Helmreich, 1972; Swim, Aikin, Hall, & Hunter, 1995). Typically, these measures do not assess gender-related beliefs in other domains such as parenting, family life, and physical appearance. However, collectively, all these domains involve prescriptive gender norms about roles, behaviors, traits, and physical appearance that are seen as "appropriate" for women and men, and people vary in the degree to which they explicitly endorse such traditional prescriptions. Second, most gender-related scales concentrate on beliefs and attitudes toward women in particular rather than both sexes. Third, with regard to gender identity, the two most popular and well-validated scales—the Bem Sex Role Inventory (Bem, 1974) and the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1974)—focus exclusively on people's self-descriptions in terms of gendered personality traits, but they do not assess how people present their gender and sexual identity to others and to the self. Because our interest focused on the influence of both traditional beliefs about gender roles (across a wide array of domains) and gender identity, we designed a new scale called Traditional Beliefs about Gender and Gender Identity (TBGI) to assess individual differences in such beliefs. Here we provide relevant evidence of scale construction and scale validation (Rivera & Dasgupta, 2006).

Using six student and community samples we constructed a 15-item scale comprising two subscales (see Appendix). One subscale, Traditional Beliefs about Gender (TBG; 8 items), focuses on the degree to which people endorse traditional prescriptive gender norms in various life domains including parenting, professional life, social interactions, and physical appearance. The other subscale, Traditional Beliefs about Gender Identity (TBI; 7 items), focuses on the degree to which people are invested in emphasizing their heterosexual identity to others and to themselves. Participants indicated their agreement or disagreement with each statement on a 7-point scale ranging from *strongly disagree* (1) to *strongly agree* (7).

Exploratory factor analyses indicated that the scale items loaded onto two separate factors (TBI accounted for 25% of the variance in responses, and TBG accounted for 16% of the variance). The scale showed robust internal consistency across six independent samples (αs ranged from .84 to .90). The two factors were moderately correlated, $r(1985) = .53$, $p < .001$. To validate the fit of the two-factor model, we conducted a confirmatory factor analysis (CFA; Jöreskog & Sörbom, 1996) on a new sample. The one-factor model did not fit the data well (goodness-of-fit index [GFI] = .88, adjusted goodness-of-fit index [AGFI] = .83, root mean square error of approximation [RMSEA] = .10, 90% confidence intervals [CIs] = 0.09, 0.10), whereas the two-factor model fit significantly better (GFI = .95, AGFI = .93, RMSEA = .057, 90% CIs = 0.05, 0.06), $\Delta\chi^2(1, N = 1251) = 492.41$, $p < .001$.

To rule out the possibility that the TBGI is simply a measure of explicit attitudes toward gays and lesbians, we performed two additional CFAs using a community sample ($N = 136$). In the first CFA, TBGI and three measures assessing attitudes toward gay men and lesbians (two feeling thermometers and Herek's [1988] Attitudes Toward Lesbians and Gay Men scale) were modeled as a single construct. This model did not fit the data well, $\chi^2(14, N = 136) = 31.71$, $p < .005$; GFI = .77, AGFI = .48, RMSEA = .07, 90% CI = 0.0, 0.11. In the second CFA, attitudes toward gays and lesbians and the TBGI were modeled as two distinct but correlated constructs. This model fit the data well, $\chi^2(13, N = 136) = 8.37$, $p = .81$; GFI = .98, AGFI = .93, RMSEA = .00, 90% CI = 0.0, 0.05. Moreover, the two-factor model was a significant improvement over the one-factor model, $\Delta\chi^2(1, N = 136) = 23.34$, $p < .01$. These analyses suggest that beliefs about gender roles and gender identity represent a construct that is independent from attitudes toward gay men and lesbians.

Finally, the TBGI was significantly correlated in the predicted direction with other theoretically related constructs such as attitudes toward women (average $r = .53$, $p < .01$), attitudes toward gay men and lesbians (average $r = .57$, $p < .01$), authoritarianism ($r = .63$, $p < .01$), and social dominance ($r = .18$, $p < .05$), but not with unrelated constructs such as social desirability ($r = -.04$, *ns*) and self-esteem ($r = -.05$, *ns*).

Measurement of behavioral control. We created three items to assess individual differences in the degree to which people are aware of and able to control their subtle nonverbal behavior during interpersonal interactions. These items included the following: (a) "While talking to another person I'm conscious of what I communicate silently with my 'body language'"; (b) "I try to keep an eye on my own actions when I'm interacting with others so that I don't behave in a discriminatory manner without thinking"; and (c) "When I'm in the presence of a gay or lesbian person, I pay attention to my own behavior so that they don't get the impression that I'm prejudiced against them." For each item, participants indicated their agreement or disagreement on a 7-point scale ranging from *strongly disagree* (1) to *strongly agree* (7). These items were designed to capture people's ability to control their public behavior independent of their beliefs about gender roles and gender identity. The reliability coefficients are similar for all three items together and for only the two items specific to prejudice control (αs ranged from .64 to .70).

Measurement of self-reported sexual orientation. Self-reported sexual orientation was measured with one item embedded in a demographic

questionnaire. Participants were asked, "In terms of sexual preference, how do you self-identify?" They marked a position on an 11-point scale anchored by *I identify as gay or lesbian exclusively* (1), *I identify as bisexual* (6), and *I identify as heterosexual exclusively* (11). We chose a single-item measure as a simple way of ensuring that our sample included only heterosexual participants. Past research reveals that there is no clear consensus on how to assess self-reported sexual orientation (for reviews, see Chung & Katayama, 1996; Coleman, 1987; Sell, 1997). For example, sexual orientation has been measured using a single categorical variable with three response options (i.e., heterosexual, bisexual, and homosexual), a single continuous variable (i.e., ranging from exclusively heterosexual to exclusively homosexual), and multiple variables (based on identity, behavior, sexual fantasy, etc.). Our single-item measure is most similar to Kinsey, Pomeroy, and Martin's (1948) original scale.

Procedure

Participants took part in two ostensibly unrelated studies that in reality were two sessions of the same study. The two sessions were separated by 1 week to minimize suspicion and to enhance the "two separate studies" cover story. In the "first study" the female experimenter told participants that they would complete a number of tasks for her undergraduate research project. After signing the consent form, participants completed a brief demographic form, followed by a gay male IAT, the TBGI scale, and behavioral control items (the last two measures were presented in counterbalanced order). Once they were done, participants were reminded that they had signed up for another study scheduled for the following week (in reality, the "second study" was the behavioral session).

One week later, participants arrived at a different location where they were greeted by a new female experimenter. She informed them that they would be interviewed by two undergraduate students for their senior theses on public opinions about politics and the economy. She went on to explain that the honors college at the university wanted to profile the accomplishments of students in the honors program so they had compiled a brief folder describing each honors student. The experimenter then gave participants two folders to read that ostensibly belonged to the two interviewers while they waited for the first interviewer to arrive. Each folder contained a résumé and a photograph of the interviewer. In reality, of course, the interviewers were confederates whose sexual orientation was manipulated through information in the résumé (see *Measures and Manipulations* section for details). The experimenter removed these folders before the confederate entered the room; thus, confederates always remained unaware of their manipulated role.

Each confederate conducted a one-on-one interview with the participant for about 10 min in a small private room. The topic of one interview involved participants' opinion of the economy and how it was affecting their lives. The other interview was about presidential politics and participants' voting preferences. Both topics were selected to be unrelated to prejudice. The set of questions asked by each confederate was always fixed; however, as mentioned earlier, we counterbalanced (a) confederates' sexual orientation between participants, (b) the order in which participants encountered the person in the gay versus heterosexual role, and (c) the order in which participants met each individual confederate. Participants' behavior was rated by the two confederates immediately after the interviews and by two independent judges who later watched the videos taped by the hidden camera.

After the interviews were over, the female experimenter returned and asked participants some final questions to assess their level of suspicion, their awareness of the hypotheses, and their awareness of confederates' sexual orientation. None of the participants in our sample guessed the hypotheses. The experimenter then debriefed participants, requested their permission to use their videotaped interviews, and paid them for their time.

Results and Discussion

Automatic Attitudes

We calculated automatic attitudes toward gay men relative to heterosexuals by subtracting the average latency for pro-heterosexual combinations (heterosexual + good and homosexual + bad) from the pro-gay combinations (homosexual + good and heterosexual + bad). The larger this difference score or IAT effect, the stronger the automatic preference for heterosexuals and relative bias against gay men. A t test comparing the average IAT effect to zero revealed that participants expressed substantial automatic prejudice against gay men, compared with heterosexuals (mean IAT effect = 249 ms; d = .96), $t(81) = 10.63$, $p < .0009$. There was no significant difference between men and women's automatic attitudes (IAT effect$_{men}$ = 220 ms; IAT effect$_{women}$ = 266 ms), $t(80) = -1.23$, $p = .22$. This finding is consistent with previous research showing that, when implicit attitudes toward gay men are examined, male and female participants often exhibit similar levels of antigay bias (Banse, Seise, & Zerbes, 2001; Steffens & Buchner, 2003).

Conscious Beliefs About Gender Roles and Gender Identity

Beliefs about gender roles and gender identity revealed significant differences between men and women. Responses on the TBGI scale as a whole ($\alpha = .91$) showed that men endorsed significantly more traditional beliefs about gender roles and gender identity ($M = 3.61$, $SD = 1.06$) than women ($M = 2.84$, $SD = 1.14$), $F(1, 80) = 9.12$, $p = .003$. This pattern emerged for both subscales. On the TBG subscale ($\alpha = .87$), men were more likely to endorse traditional gender roles ($M = 3.32$, $SD = 1.20$) than women ($M = 2.39$, $SD = 1.29$), $F(1, 80) = 10.32$, $p = .002$. Similarly, on the TBI subscale ($\alpha = .90$) men were more invested in making their normative gender identity apparent to others and to the self ($M = 3.92$, $SD = 1.38$) than were women ($M = 3.34$, $SD = 1.43$), $F(1, 80) = 3.28$, $p = .07$.

Behavioral Control

The three behavioral control items were averaged into a single index ($\alpha = .70$) in which higher numbers indicated that perceivers were more practiced at controlling their interpersonal behavior. Results showed that men and women were equally skilled at controlling behavior ($M_{male} = 4.37$, $SD = 1.43$; $M_{female} = 4.46$, $SD = 1.39$), $F < 1$.

Nonverbal Behavior

Participants' behavior was rated by the two confederates and two independent judges. All raters made six behavioral judgments (smiling, eye contact, body posture, friendliness, comfort, and interest). These behaviors were analyzed in two ways: (a) as a single averaged behavioral index that captured participants' global interaction style and (b) as individual behaviors. The global index was created in the following manner. First, confederates' ratings were averaged into two behavioral indices, one for the gay confederate and the other for the heterosexual confederate so that higher numbers indicated more favorable behavior (average $\alpha = .84$). Second, because the two judges' ratings were well correlated $r(80) = .73$, $p < .001$, these ratings were

collapsed into a single index for actions directed at the gay confederate and another index for actions directed at the heterosexual confederate (average $\alpha = .88$). Finally, confederates' and judges' ratings were combined because they were significantly correlated $r(80) = .53$, $p < .0001$ and yielded the same pattern of findings. A Participant Sex × Confederate Role between-participants analysis of variance (ANOVA) indicated that, on average, there was no difference between participants' spontaneous behavior toward the confederate in the gay versus the heterosexual role (*M*s = 6.48 and 6.44, respectively), $F < 1$.

Relationship Between Automatic Antigay Attitudes and Subtle Behavior

To test whether automatic antigay attitudes, the TBGI, and behavioral control had any effect on participants' overall behavior, we conducted a hierarchical regression in which behavior directed at the gay confederate was used as the outcome variable. Behavior directed at the heterosexual confederate and participants' age were controlled in the first step of the regression equation. Using the heterosexual confederate as a control variable allowed us to partial out individual differences in participants' general social skills (which should affect their behavior toward heterosexual and gay men equally) and instead only focus on the variance in behavior that was directed at gay men in particular. We also sought to control the possible confounding influence of participants' age because past research has documented that older people tend to be more prejudiced against gay men and lesbians than younger people (Britton, 1990; Herek, 1988, 1994; Hudson & Ricketts, 1980). This is particularly relevant in the present study because of the wide age range in our community sample.

In the second step of the regression equation, we included the predictor variables—automatic attitudes (gay IAT), conscious beliefs about gender and identity (the TBGI), behavioral control, and participant sex—followed by the two-, three-, and four-way interaction variables in subsequent steps. Results revealed a significant four-way IAT × TBGI × Behavioral Control × Participant Sex interaction, $F_{\text{omnibus}}(17, 65) = 1.77$, $p = .06$; $\Delta F(1, 65) = 4.43$, $p = .04$; $\Delta R^2 = .05$; $\beta = -.35$, $p = .04$. To disaggregate this interaction effect, we examined the data for male and female participants separately. Because the community from which this sample was drawn was home to several feminist organizations and women's colleges, we anticipated that female participants would report mostly egalitarian beliefs, whereas male participants would be more heterogeneous in their beliefs, thereby providing a better test of our hypotheses. Specifically, we predicted that automatic antigay attitudes would result in antigay behavior for men who were not motivated by conscious egalitarian beliefs and not able to control their subtle behavior. However, other men who were either highly motivated to be egalitarian or highly skilled at controlling behavior would not exhibit antigay behavior.

Male participants. A regression using men yielded a significant three-way IAT × TBGI × Behavioral Control interaction, indicating that men's behavior toward the gay confederate was influenced by their automatic attitudes, beliefs about gender, and behavioral control, $F_{\text{omnibus}}(9, 20) = 5.99$, $p = .001$; $\Delta F(1, 20) = 4.78$, $p = .04$; $\Delta R^2 = .07$; $\beta = .39$, $p = .04$. To examine the direction of this effect, traditional versus nontraditional men were disaggregated through a median split of their TBGI scores (*Mdn* = 3.47).

Traditional men (low motivation to be egalitarian). As shown in Figure 1, Panel A, traditional men's data showed a significant IAT × Behavioral Control interaction revealing that automatic antigay prejudice produced discriminatory behavior when male participants were not motivated by egalitarian beliefs and not able to control their behavior, $F_{\text{omnibus}}(5, 10) = 5.35$, $p = .03$; $\Delta F(1, 10) = 6.39$, $p = .05$; $\Delta R^2 = .17$; $\beta = .61$, $p = .05$. To explore this two-way interaction more carefully, we separately examined the responses of traditional men who were high versus low in automatic prejudice (*Mdn* IAT effect = 119 ms). Results showed that men who exhibited strong automatic prejudice behaved less favorably if they were unable to control their behavior, compared with their peers who were able to control behavior, $F_{\text{omnibus}}(3, 5) = 18.91$, $p = .02$; $\Delta F(1, 5) = 16.64$, $p = .03$; $\Delta R^2 = .21$; $\beta = 1.17$, $p = .03$. In contrast, men who exhibited no automatic prejudice behaved similarly regardless of behavioral control, *p*s > .25. We interpret these data cautiously given the small sample of traditional men. These findings await replication in the following experiment.

Traditional men's individual behaviors. We conducted similar regressions using each of the six behavioral indicators as dependent variables. Three of these behaviors produced significant effects: Among traditional participants who were automatically prejudiced, low behavioral control resulted in less eye contact with the gay interviewer, $\beta = .60$, $p = .06$, less comfort in his presence, $\beta = .89$, $p = .002$, and less interest in the conversation, $\beta = .38$, $p = .10$.

Nontraditional men (high motivation to be egalitarian). For nontraditional men who were highly motivated to be egalitarian, automatic prejudice in the mind did not produce biased action in terms of the overall behavioral index ($\Delta F < 1$, $p = .42$; see Figure 1, Panel B) or individual behaviors (all *p*s > .17).

Female participants. For women, automatic attitudes, gender-related beliefs, and behavioral control did not predict behavior (all *p*s = *ns*), which is not surprising given that the vast majority of female participants in this study expressed highly egalitarian beliefs about gender roles (94%) and gender identity (65%) on the TBGI.

Experiment 2

Experiment 2 sought to provide a stronger test of our hypothesis that the relation between automatic antigay prejudice and behavior is guided by the degree to which people (both men and women) are motivated by egalitarian beliefs and able to control their behavior. To that end, we recruited a community sample from a large city where people tend to be more heterogeneous in terms of their gender-related beliefs, compared with the small college town where the previous experiment had been conducted. We predicted that this time, for both sexes, automatic prejudice would produce subtle antigay behavior if participants were not motivated by egalitarian beliefs and not able to control their behavior. In contrast, when either egalitarian motivation or behavioral control was activated, the relation between automatic prejudice and biased behavior would become attenuated.

Method

Participants

A community sample of 67 participants (39 women, 28 men) was recruited from a city with the help of advertisements in local newspapers and flyers at local businesses and community colleges. All partic-

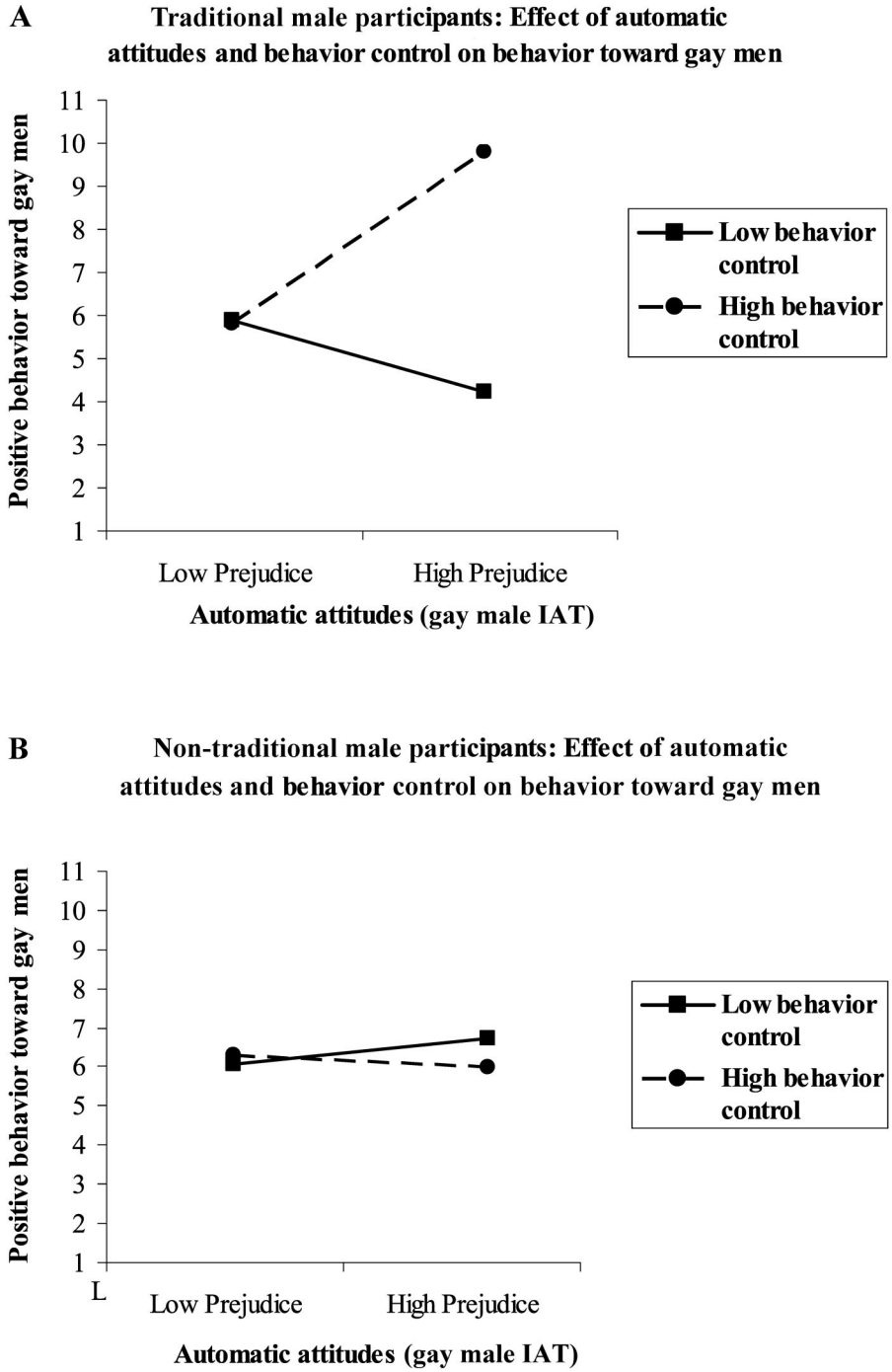

Figure 1. A: Traditional male participants: effect of automatic prejudice and behavioral control on subtle behavior toward gay men. This interaction effect was plotted by calculating values for each of the two predictor variables that was 1 standard deviation above and below the mean (Aiken & West, 1991). B: Nontraditional male participants: Effect of automatic prejudice and behavioral control on subtle behavior toward gay men. IAT = Implicit Association Test.

ipants were paid $15–$20. Seventy percent of the participants were White, 12% were Black, 9% were Hispanic, 1.5% were Native American, 1.5% were multiracial, and 6% indicated that they belonged to other unspecified groups. Participants' age ranged from 17 to 71 (M = 37.33 years, SD = 13.08). None of the participants identified as gay or lesbian (mean self-rating = 10.69 on an 11-point scale). The procedure was identical to Experiment 1 with two exceptions. First, in Experiment 2, we used three confederates who rotated between gay and heterosexual roles (instead of two confederates). Second, the TBGI and behavioral control measures were administered at the end of Session 2.

Results and Discussion

Automatic Attitudes

A t test comparing the IAT effect to zero revealed that, as a group, participants expressed significant antigay prejudice (mean IAT effect = 341 ms), $t(66) = 12.18$, $p < .0009$. In addition, men exhibited more automatic bias (IAT $\text{effect}_{\text{men}} = 445$ ms, $d = .79$) than women (IAT $\text{effect}_{\text{women}} = 269$ ms, $d = .52$), $t(65) = -2.62$, $p = .01$. Moreover, participants in this study showed more antigay prejudice (IAT $\text{effect}_{\text{Experiment 2}} = 341$ ms) than those in the previous study (mean IAT $\text{effect}_{\text{Experiment 1}} = 249$ ms), $t(142) = 2.21$, $p < .03$.

Traditional Beliefs About Gender Roles and Gender Identity

Beliefs about gender roles and gender identity revealed significant differences between men and women. Responses on the TBGI as a whole ($\alpha = .87$) showed that men endorsed more traditional beliefs about gender roles and gender identity ($M = 3.93$, $SD = 1.01$) than women ($M = 3.02$, $SD = 1.14$), $F(1, 66) = 11.48$, $p = .001$. This pattern emerged for both subscales. On the TBG subscale ($\alpha = .78$), men favored the separation of gender roles ($M = 3.31$, $SD = 1.22$) more than women ($M = 2.50$, $SD = 1.21$), $F(1, 66) = 7.35$, $p = .009$. Similarly, on the TBI subscale ($\alpha = .81$), men were more invested in making their normative gender identity apparent to others and to the self ($M = 4.62$, $SD = 1.26$) than were women ($M = 3.61$, $SD = 1.45$), $F(1, 66) = 8.90$, $p = .004$. Overall, participants in this experiment reported more traditional beliefs on the TBGI ($M = 3.43$, $SD = 1.15$), compared with their counterparts in Experiment 1 ($M = 3.04$, $SD = 1.14$), $t(146) = 2.04$, $p < .05$.

Behavioral Control

Responses on the three behavioral control items indicated that, on average, male and female participants were equally able to control their subtle behaviors ($M_{\text{male}} = 4.21$, $SD = 1.23$; $M_{\text{female}} = 4.38$, $SD = 1.19$; $F < 1$).

Nonverbal Behavior

As in the previous experiment, behaviors were analyzed in two ways: (a) as a single averaged behavioral index that captured participants' global interaction style and (b) as individual behaviors. The global index was created in the following manner. First, the confederates' ratings were averaged into two behavioral indices, one for the gay confederate and the other for the heterosexual confederate so that higher numbers indicated more favorable behavior (average $\alpha = .74$). Second, because the two judges' ratings were significantly correlated, $r(66) = .60$, $p < .001$, these ratings were collapsed into one index capturing behavior toward the gay confederate and another capturing behavior toward the heterosexual confederate (average $\alpha = .75$). Finally, confederates' and judges' ratings were combined, $r(66) = .45$, $p < .0001$. A Confederate Role $\times$ Participant Sex between-participants ANOVA revealed a significant two-way interaction, $F(1, 66) = 6.37$, $p = .01$, which indicated that, compared with women, men were less friendly toward the allegedly gay confederate (Ms = 6.78 and 5.50, respectively), $t(66) = -2.50$, $p = .02$, but both were equally friendly toward the heterosexual confederate (Ms = 6.05 and 6.20, respectively), $t < 1$.

Relationship Between Automatic Antigay Attitudes and Subtle Behavior

To test whether automatic antigay attitudes, the TBGI, and behavioral control had any effect on spontaneous behavior toward the gay confederates, we conducted a hierarchical regression using overall behavior toward the gay confederate as the outcome variable. After we controlled for the effect of participants' age, their behavior toward heterosexual confederates, and participant sex in the first step of the regression equation, gay IAT scores, TBGI, and behavioral control were entered as predictor variables in the second step, followed by the two- and three-way interaction variables in subsequent steps. Results revealed a marginally significant effect of participant sex, indicating that, overall, male participants behaved less positively than female participants, $F(3, 64) = 5.86$, $p < .0009$; $\beta = .20$, $p = .09$. More important, a significant TBGI $\times$ IAT $\times$ Behavioral Control interaction emerged; $F_{\text{omnibus}}(10, 57) = 3.47$, $p = .001$; $\Delta F(1, 57) = 3.03$, $p = .04$; $\Delta R^2 = .09$; $\beta = .32$, $p = .007$. All other effects were nonsignificant. To test the direction of the three-way interaction, we separately examined the data for traditional and nontraditional participants based on a median split ($Mdn = 3.43$).

Traditional participants (low motivation to be egalitarian). Using traditional participants only, we tested whether the IAT and behavioral control predicted people's behavior toward gay men. A significant IAT $\times$ Behavioral Control interaction revealed that automatic antigay prejudice resulted in discriminatory behavior only among participants who were not motivated by egalitarian beliefs and not able to control their behavior; $F_{\text{omnibus}}(5, 27) = 2.73$, $p = .04$; $\Delta F(1, 27) = 4.95$, $p = .04$; $\Delta R^2 = .12$; $\beta = .37$, $p = .04$ (see Figure 2, Panel A). All other effects were nonsignificant. To explore this two-way interaction more carefully, we separately examined the responses of traditional participants who were high versus low in automatic prejudice. Similar to Experiment 1, results showed that those who exhibited high levels of automatic prejudice behaved less favorably if they had little behavioral control, compared with their peers who had a great deal of behavioral control; $F_{\text{omnibus}}(2, 20) = 2.53$, $p = .10$; $\Delta F(1, 20) = 3.71$, $p = .07$; $\Delta R^2 = .15$; $\beta = .41$, $p = .07$. In contrast, traditional participants who exhibited low levels of automatic prejudice behaved similarly toward gay men regardless of behavioral control, $F < 1$, $p > .40$.

Traditional participants' individual behaviors. We conducted similar regressions using each of the six behavioral indicators as dependent variables. Four of the six behaviors produced significant effects. Specifically, among traditional participants who were prejudiced, low behavioral control resulted in less relaxed body posture in the presence of gay men, $\beta = .46$, $p = .03$; less friendliness toward gay men, $\beta = .74$, $p = .005$; less comfort in the presence of gay men, $\beta = .50$, $p = .01$; and less interest in the conversation, $\beta = .33$, $p = .09$.

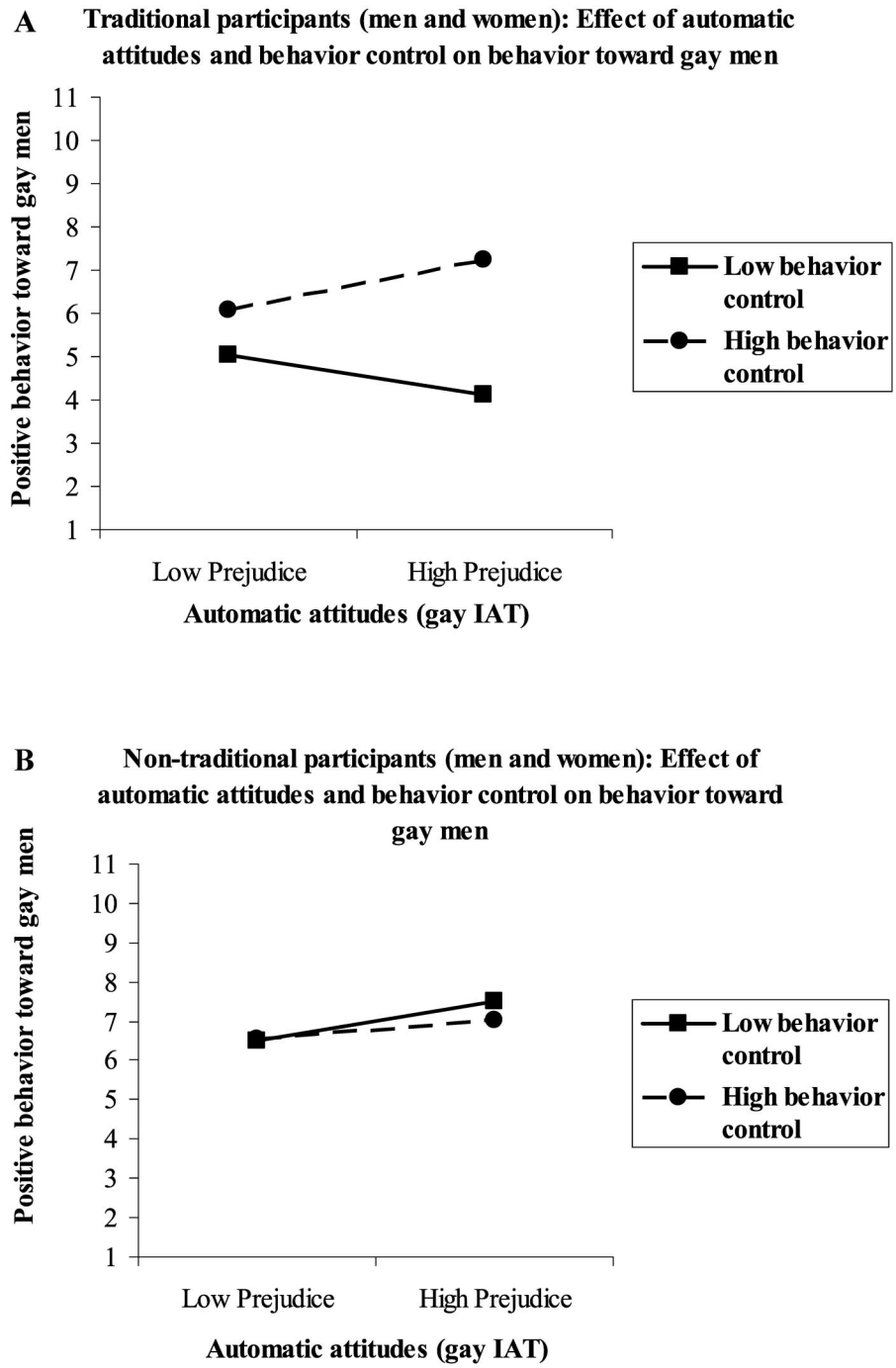

Figure 2. A: Traditional participants (men and women): effect of automatic prejudice and behavioral control on subtle behavior toward gay men. This interaction effect was plotted by calculating values for each of the two predictor variables that was 1 standard deviation above and below the mean (Aiken & West, 1991). B: Nontraditional participants (men and women): Effect of automatic prejudice and behavioral control on subtle behavior toward gay men. IAT = Implicit Association Test.

Nontraditional participants. Another regression tested whether the IAT and behavioral control predicted the behavior of participants who endorsed nontraditional beliefs. All effects were statistically nonsignificant for this group for both the behavioral index, Fs < 1, ps $> .50$ (see Figure 2, Panel B), and individual behaviors, all ps $> .21$.

General Discussion

Although automatic bias in the mind may predispose people to behave in a subtly discriminatory fashion, the present research illustrates that such behavior is by no means inevitable. People's

nonverbal and verbal behaviors toward stigmatized individuals such as gay men are guided by a blend of automatic and controlled processes including automatically activated attitudes, conscious egalitarian beliefs, and ability to control behavior.

The Moderating Effect of Conscious Egalitarian Beliefs and Behavior Control

The present studies demonstrated that automatic antigay prejudice resulted in discrimination against gay men only when conscious motivation and control were absent. Experiment 1 showed that for men who were not motivated by egalitarian beliefs and who were unable to control their subtle behavior, stronger automatic prejudice produced more antigay discrimination. However, others who endorsed egalitarian beliefs or who were skilled at controlling their actions did not discriminate, regardless of their automatic attitudes.

Because Experiment 1 included a disproportionate number of egalitarian women, we conducted Experiment 2 to actively recruit a more heterogeneous urban sample with greater diversity in gender-related beliefs. This experiment demonstrated that for both men and women, conscious processes such as egalitarian beliefs and behavioral control moderated the relation between automatic prejudice and discrimination. Specifically, automatic antigay prejudice in the mind translated into biased action only for people who were not motivated by egalitarian beliefs and not skilled at behavior control. However, others who favored egalitarian beliefs or who were skilled at managing their behavior showed no outward discrimination, regardless of their automatic attitudes. In fact, implicitly biased participants who were behaviorally skilled overcorrected their behavior and acted more favorably toward gay men than their less skilled peers. This finding is consistent with conceptually similar effects reported by Fazio and colleagues, who found that implicitly prejudiced participants who were highly motivated to control racial bias overcorrected their evaluations of African American individuals (Dunton & Fazio, 1997; Olson & Fazio, 2004).

Our data illustrate that certain types of nonverbal behaviors (smiling, eye contact, body posture, global friendliness and comfort) can be controlled with practice. However, other behaviors (e.g., eyeblinks, startle responses) may be more difficult to control. In addition, high vigilance during interactions with stereotyped outgroups may have cognitive costs for social actors—that is, after such interactions people may feel cognitively depleted in keeping with Richeson and Shelton's (2003) findings. However, an interesting alternative possibility is that people who are highly practiced at monitoring and modifying their subtle behaviors may not show cognitive depletion after intergroup interactions if this skill has become automatized. An examination of individual differences in the cognitive consequences of behavioral control promises to be an intriguing avenue of future research.

In addition to the moderating role of behavioral control, we also tested the role of conscious egalitarian beliefs as a source of motivation to behave in a nonprejudiced manner. In our research, egalitarian beliefs about gender roles and gender identity were the source of motivation that short-circuited the translation of automatic antigay bias from thoughts into action. For other stigmatized groups besides gay men, the specific nature of the egalitarian belief system may vary, but as a general principle, conscious beliefs in favor of equality ought to exert a moderating influence on the automatic attitude–behavior link because such beliefs motivate people to be mindful in social interactions. We speculate that intrinsically motivated egalitarian beliefs, rather than extrinsically motivated beliefs, ought to be effective in attenuating the link between automatic prejudice and discriminatory action because intrinsically motivated people are likely to have accumulated greater practice at avoiding bias across many types of situations, whereas extrinsically motivated people are only likely to be mindful if situational norms demand it.

A Caveat

In our research, we manipulated sexual orientation quite subtly by briefly indicating in the confederate's résumé that he belonged to a gay students' alliance on campus (gay role) or a fraternity (heterosexual role). Nevertheless, one may argue that this manipulation might have led participants to perceive the gay confederate as politically active, which in turn might have biased their behavior. Similarly, one may argue that the heterosexual confederate might have been perceived as stereotypical because he was a fraternity member, which also might have biased participants' behavior. Although both possibilities may have introduced nonsystematic error variance in the behavioral data, these critiques do not provide a clear alternative explanation that accounts for the specific interaction effect involving automatic prejudice, behavioral control, and egalitarian beliefs that was observed across two studies.

Conclusion

In summary, the present studies are the first to show that, although spontaneous behavior toward stigmatized others may be driven by automatically activated prejudice under some conditions, conscious processes such as the motivation to be egalitarian and behavioral control can circumvent the effect of automatic prejudice on outward behavior. In other words, these studies show that the relation between automatic attitudes and social behavior is malleable to the extent that the type of behavior under consideration can be shaped by downstream conscious processes such as egalitarian motivation and behavior control.

Whereas previous research has shown that practice and vigilance can attenuate automatic biases in attitude activation (Kawakami, Dovidio, & Moll, 2000), the present research extends this logic by demonstrating that practice and vigilance can also attenuate discriminatory actions that typically unfold quickly in real time. Moreover, these data complement other research on motivation to control prejudice (e.g., Dunton & Fazio, 1997; Plant & Devine, 1998) by showing that such motivation is often rooted in people's consciously held beliefs and values about equality. Conscious egalitarian beliefs can override the effect of automatically activated prejudice and prevent certain forms of behavioral bias toward outgroups. Whereas the present data illustrate that relatively spontaneous interpersonal actions can be modified by motivation and control, future research might investigate whether the effect of such conscious processes generalize to other types of actions and decisions that are more constrained by cognitive load or time pressure.

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(*Appendix follows*)

Appendix

Traditional Beliefs about Gender and Gender Identity Scale

1. It's important that men appear masculine and that women appear feminine.
2. It is inappropriate for a man to use clear nail polish on his fingernails.
3. If the aims of women's liberation are met, men will lose more than they will gain.
4. A woman needs the support of a man to advance professionally.
5. Children raised by single mothers are usually worse off compared to children raised by married couples.
6. Men who end up gay probably didn't have strong male role models during their childhood.
7. A man who is vulnerable is a sissy.
8. Openly expressing my affection to another person of my own sex is difficult for me because I don't want others to think I'm gay.
9. I would feel comfortable attending social functions where the majority of people are homosexuals of my own sex. (R)
10. I would feel comfortable knowing that members of my sex found me attractive. (R)
11. If a member of my sex made a sexual advance toward me I would feel angry.
12. I would be comfortable if I found myself attracted to a member of my sex. (R)
13. I would feel nervous being in a group of homosexuals of my own sex.
14. I would feel at ease conversing alone with a homosexual person of my own sex. (R)
15. I would feel comfortable with being labeled as homosexual. (R)

Note. Items 1–8 assess traditional beliefs about gender; Items 9–15 assess traditional gender identity. When presented to participants, these items were randomly intermixed. (R) indicates reverse-coded items. Five of the above items were borrowed from existing scales (Hudson & Ricketts, 1980; Jean & Reynolds, 1980; Snell, 1986).

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