

## **WHEN SOCIAL CONTEXT MATTERS: THE INFLUENCE OF LONG-TERM CONTACT AND SHORT-TERM EXPOSURE TO ADMIRABLE OUTGROUP MEMBERS ON IMPLICIT ATTITUDES AND BEHAVIORAL INTENTIONS**

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Past research has shown specific situational interventions can reduce implicit prejudice against outgroups, but nothing is known about who is most sensitive to these situations and whether they influence behavior. The present study examined the combined influence of short-term situational exposure to admired outgroup members (gays and lesbians) and individual differences in prior long-term contact on implicit antigay attitudes and discriminatory behavioral intentions (voting). Results showed that in the absence of any intervention, participants with little contact with gays and lesbians showed more implicit antigay attitudes and discriminatory voting intentions than participants with high contact. However, after the short-term intervention, participants, regardless of prior contact, showed low levels of implicit prejudice and discriminatory voting intentions. The observed reduction of bias in implicit attitudes and behavioral intentions occurred independently; attitude change did not mediate behavioral change. We suggest that different underlying mechanisms drive changes in implicit attitudes versus explicit behavioral intentions.

The contemporary study of prejudice illustrates that social structural inequalities can shape group perception and behavior indirectly without people's conscious endorsement of such inequalities (Dovidio & Gaertner, 2004; Greenwald & Banaji, 1995; Jost, Banaji, & Nosek, 2004). That is, the unequal distribution of social, politi-

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cal, and economic capital between groups is often reflected at the individual level as attitudinal preference for advantaged groups and bias against disadvantaged groups. These preferences and biases are particularly evident when attitudes are measured unobtrusively (implicit attitudes) rather than obtrusively (explicit attitudes). Two decades of research has documented implicit preferences for high status groups, relative prejudice against lower status groups, and correlated behavioral bias that preserves or exacerbates intergroup inequalities (Blair, 2001; Dasgupta, 2004; Greenwald, Poehlman, Uhlmann, & Banaji, 2007).

The pervasiveness of implicit prejudice and stereotypes has spurred the search for interventions. Although initial theorizing suggested that implicit attitudes are learned early in life and change slowly (Bargh, 1999; Devine, 1989), recent research has shown that, to the contrary, implicit attitudes are remarkably malleable in response to both social contexts (e.g., presence of others, positive media exposure) and internal states (e.g., goals, motivations). For example, implicit biases are substantially weakened when people's proximal environments are populated by counterstereotypes, in person or in symbolic form (Dasgupta & Asgari, 2004; Dasgupta & Greenwald, 2001; Lowery, Hardin, & Sinclair, 2001; Sinclair, Lowery, & Hardin, 2005).

While this research has challenged an important assumption about the immutability of implicit attitudes, it has not addressed several key issues: (a) Who is most sensitive to situational interventions? (b) Do these interventions influence people's behavior? (c) What are the underlying processes that fuel them? Specifically, while extant research has shown that brief exposure to counterstereotypic individuals decreases implicit bias on average (Blair, 2002; Dasgupta, *in press*), it has not examined whether the effectiveness of these situations depends on individual differences among perceivers, such as their past experiences with outgroups. Research on intergroup contact indirectly supports the idea that individual differences in prior outgroup contact may significantly shape people's implicit attitudes and also moderate the effectiveness of short-term interventions. This research has found that individuals who have many outgroup members as friends (Dovidio, Gaertner, & Kawakami, 2003; Herek & Capitanio, 1996; Pettigrew & Tropp, 2000; Tropp & Pettigrew, 2005) or friends of friends (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) report less prejudiced attitudes than others who have few outgroup friends. Although these studies have measured explicit attitudes exclusively, we predict that long-term contact may also influence implicit attitudes by enhancing the chronic mental accessibility of admired outgroup members. The more positive contact people have had with a stigmatized group in their daily lives, the more easily positive exemplars are likely to come to mind, thus producing less biased evaluations of that group regardless of situation. In other words, in the absence of any intervention, participants who have had more contact with outgroups should exhibit low implicit bias compared to their peers who have had little contact. However, brief immersion in a situation that provides exposure to admired outgroup members may temporarily erase the advantage of prior contact by enhancing the accessibility of positive exemplars, thereby decreasing implicit outgroup bias even among low contact perceivers. In the present research we examined the combined influence of long-term positive contact and short-term situational exposure to admired outgroup members on people's implicit attitudes toward a stigmatized outgroup.

Another unaddressed issue is that although implicit attitudes are remarkably responsive to situational interventions, past research is completely silent about

whether such situations have any effect on discriminatory behavior. Yet, clearly the goal of prejudice reduction theories is not only to change attitudes, but also to change discriminatory intentions and actions that produce structural inequalities. We tackled this issue by examining whether long-term outgroup contact and a short-term situational intervention affect people's behavioral intentions to discriminate. We predicted that people who have previously experienced long-term contact with a stigmatized outgroup will exhibit less discriminatory behavioral intentions toward that group compared to others who have had little contact. However, brief immersion in a situation that provides exposure to admired outgroup members is likely to temporarily erase the advantage of long-term contact by activating motivations to be egalitarian, thereby decreasing discriminatory behavioral intentions even among low contact perceivers.

To the extent that implicit attitudes and behavioral intentions are significantly shaped by long-term outgroup contact and a short-term intervention, it begs the question is decreased bias in behavioral intentions mediated by changes in implicit attitudes? Alternatively, does long-term contact and short-term exposure have independent effects on attitudes and behavioral intentions? On one hand, if the underlying mechanism driving changes in implicit attitudes and behavioral intentions is the same, we might expect changes in implicit attitudes to mediate changes in discriminatory intentions. On the other hand, if these variables produce shifts in implicit attitudes and behavioral intentions via different mechanisms, then changes in attitudes and behavioral intentions should occur independently, without one-to-one correspondence.

Our prediction was informed by recent theories on the role of associative processes, cognitive control, and motivations, in changing attitudes and behavior (Conrey, Sherman, Gawronski, Hugenberg, & Groom, 2005; Dasgupta & Rivera, 2006; Fazio, Jackson, Dunton, & Williams, 1995; Gawronski & Bodenhausen, 2006; Payne, 2005; Plant & Devine, 1998). One mechanism that drives changes in implicit attitudes involves variations in the accessibility of group-attribute associations because of first-hand contact with counterstereotypic group members or second-hand exposure to such individuals via mass media, information learned from peers and significant others (Conrey et al., 2005; Gawronski & Bodenhausen, 2006). Once learned, these automatic associations are activated in the presence of a relevant target person irrespective of their perceived "truth value" (i.e., whether or not perceivers consider these evaluations accurate). We suggest that short-term exposure to admired outgroup members and long-term contact are likely to influence implicit outgroup attitudes by tapping into this mechanism. Frequent exposure to well-liked individuals enhances the accessibility of associations between a stigmatized outgroup and positive attributes, thereby producing less biased implicit evaluations of that group.

Another mechanism that drives changes in attitudes and behavior involves motivation and control. Studies have demonstrated that people's motivation to be egalitarian and their ability to control behavior changes explicit attitudes and interpersonal behavior toward stigmatized outgroups (Dasgupta & Rivera, 2006; Fazio et al., 1995; Plant & Devine, 1998). We suggest that short-term exposure to admired outgroup members and long-term contact most likely influence conscious behavioral intentions via this mechanism by activating people's motivation to be fair and by encouraging them to engage controlled processes before deciding on a course of action. To the extent that long-term contact and short-term situations change implicit attitudes and behavioral intentions via different mechanisms, we

predict that these effects ought to occur independently without one-to-one correspondence or mediation.

## OVERVIEW OF THE PRESENT RESEARCH

One study examined whether a short-term situational intervention that affords exposure to admired outgroup members (gays and lesbians) and individual differences in long-term contact with this group would affect people's implicit antigay attitudes and behavioral intentions to vote for or against gay civil rights. Voting intentions powerfully illustrate how individuals' actions directly affect the societal treatment of an entire class of people (e.g., Americans' voting behavior in the 2004 elections barred gay marriage in several states; Bumiller, 2003; Seelye & Elder, 2003). We predicted that, at baseline, in the absence of any situational intervention, people who have had long-term contact with gays and lesbians will exhibit less implicit anti-gay prejudice and greater willingness to vote in favor of legalizing gay civil rights compared to others who have not experienced long-term contact. However, brief immersion in a situation that provides exposure to admired and counterstereotypic outgroup members will temporarily erase the advantage of prior contact by decreasing implicit anti-gay prejudice and increasing egalitarian voting intentions especially among low contact perceivers. Finally, we expected that these situational factors would have independent effects on the alleviation of implicit prejudice and discriminatory voting intentions.

## METHOD

### PARTICIPANTS

A community sample of 127 participants was recruited from a city in Massachusetts to participate in two allegedly unrelated studies separated by a week. Recruitment was done with advertisements placed in local newspapers and flyers posted at local businesses and community colleges. All participants were paid \$15–20. In the sample, 50% were women, 100% were heterosexual, and 64% were White.

### MANIPULATED VARIABLE

*Selection of Admired Gays and Lesbians and Control Exemplars.* We gathered pictures of, and biographical information about, 15 famous and admirable gay men and lesbians from the Internet and print media: eight men (e.g., writer Michael Cunningham) and seven women (e.g., writer Alice Walker). These individuals were selected on the basis of: (a) their accomplishments in several professional domains including business, politics, science, sports, art and entertainment, and social activism; (b) their contributions to society; and (c) public knowledge about their sexual orientation. We created biographical descriptions of their accomplishments and contributions; these made brief reference to sexual orientation (e.g., information about the target person's partner) in case participants were unfamiliar with an individual or his/her sexual orientation (see Appendix A).

For the control condition, we gathered pictures and information about 15 flowers and created descriptions of each flower's origin and use. We chose flowers as control stimuli for three reasons. First, they were positive in valence (like the gay exem-

plars) but semantically unrelated to sexual orientation which allowed us to rule out stimulus positivity as a potential alternative explanation for our findings. Second, we preferred positive nonsocial stimuli rather than admired heterosexuals as controls because seeing the latter might increase implicit preference for heterosexuals and relative bias against homosexuals, which would make it difficult to determine whether the obtained difference between the control condition (admired heterosexual exemplars) vs. the experimental condition (admired gay exemplars) was due to increased anti-gay bias in the control condition, or decreased anti-gay bias in the experimental condition, or both. The use of nonsocial stimuli allowed us to avoid this interpretational ambiguity. Finally, our own past research using a similar paradigm (Dasgupta & Greenwald, 2001) initially utilized two types of control exemplars—admired members of an advantaged group and positive nonsocial stimuli—both of which produced statistically similar effects on implicit outgroup attitudes. Based on these results, we simplified the present experimental design by choosing only one control condition.

#### MEASURED VARIABLES

*Implicit Attitudes.* Participants' implicit attitudes toward gay men and lesbians compared to heterosexuals were measured using two Implicit Association Tests (IAT; Greenwald, McGhee, & Schwartz, 1998). One IAT compared attitudes toward gay men vs. heterosexuals, and the other compared attitudes toward lesbians vs. heterosexuals. The IAT is a computerized task that measures the relative strength with which two target groups (e.g., gays vs. heterosexuals) are associated with pleasant versus unpleasant evaluations using response latency to operationalize attitude strength. The target groups were represented by pictures of same-sex and different-sex couples which were selected to ensure that the couples appeared to be lovers, not platonic friends. The evaluative dimension was represented by pleasant and unpleasant words (e.g., paradise, poison). Given space constraints, details of the IAT are not described here; interested readers are referred to Dasgupta & Rivera (2006).

*Long-Term Prior Contact with Gays and Lesbians.* We measured participants' prior contact with gay men and lesbians using the following questions: (1) Do you personally know any lesbians or gay men? Participants circled "yes" or "no" to indicate their response. If their answer to Question 1 was "yes" they were asked two additional questions. (2) How many of the people you know are gay men versus lesbians? Here, participants wrote down the approximate number of gay men and lesbians they knew personally. (3) Please indicate how many gay/lesbian people you know who are: (a) family members, (b) relatives, (c) friends, (d) acquaintances, (e) co-workers, (f) others.

*Voting Intentions Regarding Gay Civil Rights.* Twelve items measured whether participants would vote for or against public referenda seeking to legalize gay and lesbian civil rights if such a vote were to be held today (e.g., one item asked about "A law that supports civil marriage between gay men, which will have the same legal benefits, protections, and responsibilities that are granted to spouses in a marriage"). Participants responded on seven-point scales ranging from "I'm very likely to vote against this issue" (0) to "I'm very likely to vote in favor of this issue" (6). The midpoint was labeled "I have no opinion either for or against this issue" (3). We chose gay-related issues focusing on employment and housing discrimination, legalization of the adoption of children, same-sex civil unions, same-sex marriages, and protection from hate crimes. These items were embedded among other unrelated questions.

## PROCEDURE

Participants completed two ostensibly unrelated studies separated by a week. When participants came in for the “first study” they were greeted by a female experimenter who mentioned that the first task was designed to increase their general knowledge. They were told: “The Special Programs Office at the University of Massachusetts wants to increase people’s knowledge of various social groups (or the environment). To that end, for the next few minutes, you’re going to learn about some outstanding individuals (flowers).” After completing the consent form and demographic questionnaire, participants saw pictures and descriptions of famous gays and lesbians (experimental condition) or flowers (control condition). Their task was to read and remember the information they saw. After this task, participants completed two IATs in counterbalanced order and a questionnaire assessing their prior familiarity with gays and lesbians. Finally, participants were reminded that they had signed up for another study the following week.

One week later, participants arrived at a different room where they were greeted by a different female experimenter who told them that before they started the “second study” which was ostensibly the main purpose of the session, they would be tested on their memory for the information they had seen the previous week. Participants were given a paper-and-pencil measure in which they saw pictures of the individuals or flowers they had seen before, accompanied by abbreviated correct and incorrect descriptions of each stimulus. Their task was to circle the correct description. This task was administered to ensure that the admired exemplars were cognitively accessible at this time. Once this task was done, the “second study” commenced during which participants anonymously indicated how they would vote on various public referenda and deposited their completed ballots in a sealed box much like a real election. Then, they were debriefed and paid. Finally, we assessed participants’ awareness of experimental hypotheses, then debriefed and paid them.

## RESULTS

### IMPLICIT ATTITUDES

Implicit attitude scores constituted the differential speed with which participants completed homosexual+good versus heterosexual+good blocks in terms of effect size or modified Cohen’s  $d$  (IAT  $D$ ; see Greenwald, Nosek, & Banaji, 2003). Larger effect sizes indicate greater implicit bias against homosexuals and relative preference for heterosexuals. Participants exhibited significant implicit bias against both lesbians and gay men (average IAT effect = 334 ms,  $D = .57$ ;  $t(126) = 16.71$ ,  $p < .0009$ ). Moreover, the magnitude of bias was greater for gay men (IAT effect = 363 ms,  $D = .61$ ) than lesbians (IAT effect = 310 ms,  $D = .51$ ;  $F(1, 124) = 7.44$ ,  $p = .007$ ).

### PRIOR CONTACT WITH GAYS AND LESBIANS

On average, participants knew an equal number of gay men ( $M = 3.26$ ) and lesbians ( $M = 3.18$ ), most of whom were friends ( $M = 2.70$ ) and acquaintances ( $M = 1.88$ ). Very few were family members ( $M = .43$ ), relatives ( $M = .47$ ), or co-workers ( $M = .86$ ).

## VOTING INTENTIONS

When voting intentions for all items were combined ( $\alpha = .93$ ), on average, participants were somewhat supportive of legalizing gay and lesbian civil rights ( $M = 3.78$  on a 0–6 scale). Voting intentions were similar for items specific to lesbians ( $M = 4.07$ ) and gay men ( $M = 3.99$ ).

## DOES LONG-TERM CONTACT AND SHORT-TERM MEDIA EXPOSURE INFLUENCE IMPLICIT ANTIGAY ATTITUDES AND VOTING INTENTIONS?

*Implicit Attitudes.* We predicted that in the absence of any situational intervention, people who have had long-term contact with gays and lesbians will exhibit less implicit anti-gay prejudice than others who have not had long-term contact with this group. However, brief immersion in a situation that provides exposure to admired and counterstereotypic outgroup members will temporarily erase the advantage of prior long-term contact by decreasing implicit anti-gay prejudice, especially among low contact perceivers. A regression tested this hypothesis using short-term media exposure (gay/lesbian or control), and long-term contact (total number of gays and lesbians known) as predictor variables, and combined scores for the gay and lesbian IATs as the dependent variable. A significant effect of long-term contact indicated that greater contact with gay people predicted significantly less implicit prejudice ( $\beta = -.26, p = .003; F(2, 123) = 6.69, p = .002$ ). A marginal effect of media exposure indicated that participants who experienced positive media exposure exhibited less implicit antigay prejudice than others in the control condition ( $\beta = .15, p = .075; F(2, 123) = 6.69, p = .002$ ). Most importantly, we found a significant interaction between Short-term media exposure  $\times$  Long-term contact ( $\beta = -.20, p = .02; F_{\text{change}}(1, 122) = 5.85, p = .02$ ; see Figure 1).

Follow-up analyses indicated that in the control condition, in the absence of any situational intervention, people who had more long-term contact with gays and lesbians showed significantly less implicit anti-gay prejudice ( $\beta = -.42, p = .001; F(1, 56) = 12.62, p = .001$ ). However, after brief exposure to admired gays and lesbians, the impact of prior long-term contact was no longer significant; all participants who had read about admired gays and lesbians showed low levels of anti-gay prejudice regardless of individual differences in prior contact ( $\beta = -.12, p = .34; F < 1$ ).

This effect was clearly due to decreased implicit prejudice among low contact participants. Further analyses indicated that for people who had little prior contact, positive media exposure reduced implicit anti-gay bias compared to the control condition ( $\beta = .32, p = .009; F(1, 64) = 7.23, p = .009$ ). But for others who had lots of prior contact, positive media exposure had no impact—this group exhibited less antigay bias regardless of the treatment condition ( $\beta = -.03, p = .81; F < 1$ ).

*Voting Intentions Regarding Gay and Lesbian Civil Rights.* We predicted that in the absence of any situational intervention, people who have had long-term contact with gays and lesbians will exhibit greater willingness to vote in favor of legalizing gay civil rights than others who have not had long-term contact with this group. However, brief immersion in a situation that provides exposure to admired individuals will temporarily erase the advantage of long-term contact by increasing support for the legalization of gay civil rights regardless of prior contact. A regression tested this hypothesis using short-term media exposure (gay/lesbian or con-

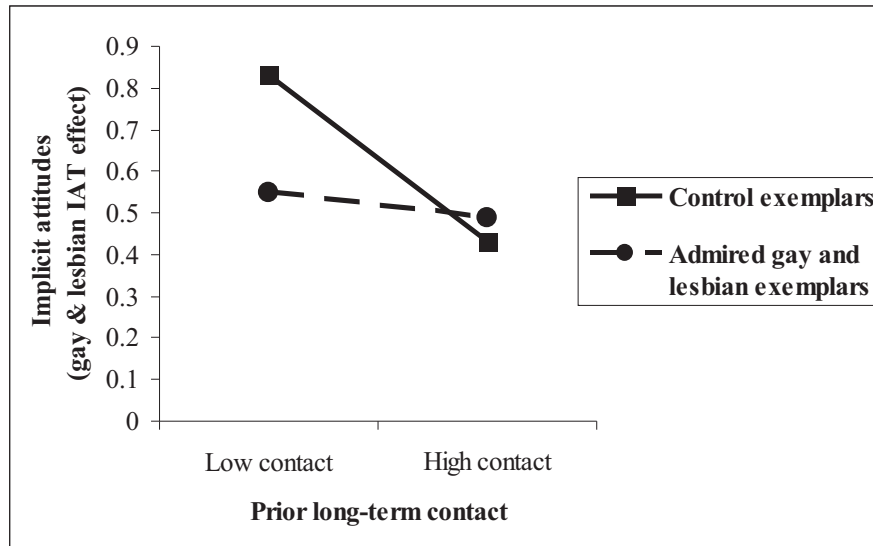


FIGURE 1. Effect of short-term exposure to admired gay/lesbian exemplars and long-term contact on implicit attitudes toward gays and lesbians.

control), and long-term contact as predictor variables, and willingness to vote for gay and lesbian referenda as the dependent variable. As predicted, we found a significant interaction between Short-term media exposure  $\times$  Long-term contact ( $\beta = -.19$ ,  $p = .05$ ;  $F_{\text{change}}(3, 105) = 3.18$ ,  $p = .03$ ; Figure 2).

Follow-up analyses indicated that in the control condition, in the absence of any situational intervention, people who had more long-term contact were significantly more willing to vote to legalize gay rights ( $\beta = .31$ ,  $p = .04$ ;  $F(2, 49) = 3.04$ ,  $p = .05$ ). However, after brief exposure to admired gays and lesbians the impact of prior long-term contact was no longer significant; all participants who had read about admired gay people showed greater support for gay civil rights ( $\beta = .06$ ,  $p = .46$ ;  $F < 1$ ).

To test whether the effect of short-term media exposure and long-term contact on voting intentions was mediated by changes in implicit attitudes, we conducted the omnibus regression again, this time controlling for the effect of implicit attitudes in Step 1 of the regression equation. Results showed that the interaction between Short-term media exposure  $\times$  Long-term contact continued to have a marginally significant effect on voting intentions, indicating that changes in implicit attitudes did not mediate this effect ( $\beta = -.18$ ,  $p = .07$ ;  $F_{\text{change}}(1, 107) = 3.47$ ,  $p = .07$ ).

## GENERAL DISCUSSION

This study is the first to show the combined influence of long-term personal contact with stigmatized outgroup members and short-term exposure to admired counterstereotypes on people's implicit attitudes and behavioral intentions to discriminate. Specifically, we found that in the absence of any situational intervention, individual differences in people's prior experiences with outgroup members played a powerful role in predicting their implicit attitudes toward gays and lesbians and their willingness to vote for equal rights for this group. People who knew



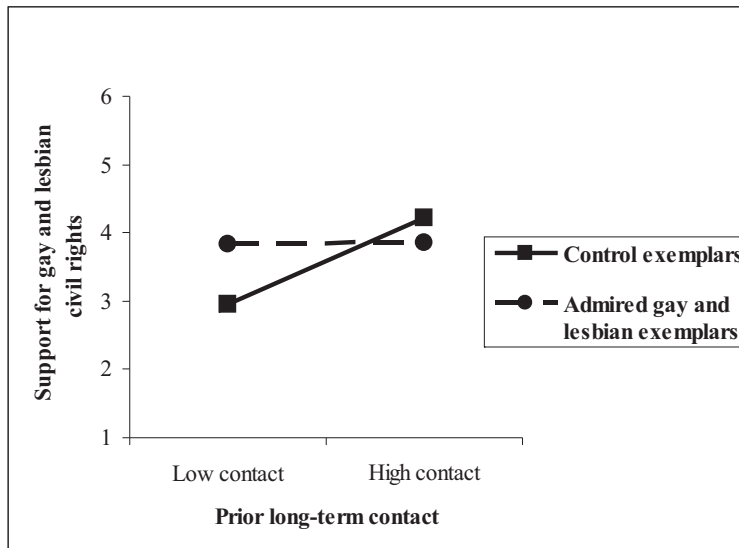


FIGURE 2. Effect of short-term exposure to admired gay/lesbian exemplars and long-term contact on voting intentions regarding gay civil rights.

few gay individuals showed significantly more implicit prejudice and less willingness to vote in favor of equal rights than others who knew many gay individuals. However, brief immersion in an experimental situation that provided a reminder of the societal contributions of gays and lesbians temporarily erased the influence of prior contact—now all participants showed less implicit antigay prejudice and more supportive voting intentions regardless of prior contact.

Moreover, our data show that long-term contact and short-term media exposure have independent effects on implicit attitudes and explicit behavioral intentions. We speculate that this occurs because different underlying processes drive changes in implicit attitudes versus explicit intentions. Specifically, frequent exposure to well-liked individuals in the form of long-term contact and short-term media exposure is likely to enhance the accessibility of positive attributes linked to a stigmatized outgroup which subsequently produces less biased implicit attitudes (Conrey et al., 2006; Gawronski & Bodenhausen, 2006). But the same type of outgroup exposure changes explicit behavioral intentions by increasing people's motivation to be egalitarian and by encouraging them to engage controlled processes before deciding on a course of action (Dasgupta & Rivera, 2006; Fazio et al., 1995; Plant & Devine, 1998). These mechanisms need to be directly investigated in future research.

By showing that both personal contact and "media contact" can alleviate bias against stigmatized outgroups, the present findings complement research on Intergroup Contact Theory. Whereas contact research has shown that conscious attitudes change in response to having outgroup members as friends (for a review see Pettigrew & Tropp, 2000) or friends of friends (Wright et al., 1997), we extended this analysis to unconscious attitudes and behavioral intentions—both change in response to personal contact and media exposure. Media exposure may encourage future person-to-person contact in three ways (Pettigrew, 1998). First, repeated

media exposure may increase subjective familiarity with outgroups. Because familiarity breeds liking (Zajonc, 1968) and reduces intergroup anxiety, people may be less likely to avoid future interactions with outgroup members. Second, and relatedly, positive affect evoked by famous individuals may generalize to other gays and lesbians encountered in everyday life (Tropp & Pettigrew, 2005). Finally, by providing new information about outgroups, media exposure may dispel stereotypes. In sum, media exposure to admired outgroup exemplars could play a key role in promoting real personal contact.

In conclusion, the present study illustrates that brief “media contact” and prolonged interpersonal contact both reduce implicit bias against stigmatized outgroups. It also demonstrates the benefit of interventions that rely on positive media exposure when interpersonal contact is not feasible due to the lack of availability of outgroup members in individuals’ immediate environment or due to the relative invisibility of stigmatized social identities (as in the case of sexual orientation). Finally, these data are the first to show that local contexts that enhance positive media exposure to outgroups not only benefit attitudes, but also extend to behavioral intentions to vote for public policies that support or prohibit equal rights.

## REFERENCES

- Bargh, J. A. (1999). The cognitive monster: The case against the controllability of automatic stereotype effects. In S. Chaiken & Y. Trope (Eds.), *Dual-Process Theories in Social Psychology* (pp. 361–382). New York: Guilford Press.
- Blair, I. V. (2001). Implicit stereotypes and prejudice. In G. B. Moskowitz (Ed.), *Cognitive social psychology: The Princeton Symposium on the Legacy and Future of Social Cognition* (pp. 359–374). Mahwah, NJ: Erlbaum.
- Blair, I. V. (2002). The malleability of automatic stereotypes and prejudice. *Personality and Social Psychology Review*, 6, 242–261.
- Bumiller, E. (2003, August 10). Cold feet: Why America has gay marriage jitters. *New York Times*.
- Conroy, F. R., Sherman, J. W., Gawronski, B., Hugenberg, K., & Groom, C. J. (2005). Separating multiple processes in implicit social cognition: The quad model of implicit task performance. *Journal of Personality and Social Psychology*, 89, 469–487.
- Dasgupta, N. (in press). Mechanisms underlying malleability of implicit prejudice and stereotypes: The role of automaticity versus cognitive control. In T. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dasgupta, N. (2004). Implicit ingroup favoritism, outgroup favoritism, and their behavioral manifestations. *Social Justice Research*, 17, 143–169.
- Dasgupta, N., & Asgari, S. (2004). Seeing is believing: Exposure to counterstereotypic women leaders and its effect on automatic gender stereotyping. *Journal of Experimental Social Psychology*, 40, 642–658.
- Dasgupta, N., & Greenwald, A. G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and Social Psychology*, 81, 800–814.
- Dasgupta, N., & Rivera, L. M. (2006). From automatic anti-gay prejudice to behavior: The moderating role of conscious beliefs about gender and behavioral control. *Journal of Personality and Social Psychology*, 91, 268–280.
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5–18.

- Dovidio, J. F., & Gaertner, S. L. (2004). Aversive Racism. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 36 (pp. 1–52). San Diego, CA: Elsevier Academic Press.
- Dovidio, J. F., Gaertner, S. L., & Kawakami, K. (2003). Intergroup contact: The past, present, and the future. *Group Processes and Intergroup Relations*, 6, 5–20.
- Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, 69, 1013–1027.
- Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin*, 132, 692–731.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102, 4–27.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74, 1464–1480.
- Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, 85, 197–216.
- Greenwald, A. G., Poehlman, T. A., Uhlmann, E., & Banaji, M. R. (in press). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*.
- Herek, G. M., & Capitano, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22, 412–424.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25, 881–920.
- Lowery, B. S., Hardin, C. D., & Sinclair, S. (2001). Social influence effects on automatic racial prejudice. *Journal of Personality and Social Psychology*, 81, 842–855.
- Payne, B. K. (2005). Conceptualizing control in social cognition: How executive functioning modulates the expression of automatic stereotyping. *Journal of Personality and Social Psychology*, 89, 488–503.
- Plant, E. A., & Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology*, 75, 811–832.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65–85.
- Pettigrew, T. F., & Tropp, L. R. (2000). Does intergroup contact reduce prejudice: Recent meta-analytic findings. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 93–114). Mahwah, NJ: Lawrence Erlbaum.
- Seelye, K. Q., & Elder, J. (2003, December 21). Strong support is found for ban on gay marriage. *New York Times*.
- Sinclair, S., Lowery, B. S., & Hardin, C. D. (2005). Social tuning of automatic racial attitudes: The role of affiliative motivation. *Journal of Personality and Social Psychology*, 89, 583–592.
- Tropp, L. R., & Pettigrew, T. F. (2005). Differential relationships between intergroup contact and affective and cognitive dimensions of prejudice. *Personality and Social Psychology Bulletin*, 31, 1145–1158.
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73–90.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9, 1–27.

## APPENDIX A: NAMES OF FAMOUS GAYS AND LESBIANS AND ABBREVIATED BIOGRAPHIES

**Roberta Achtenberg:** the first openly gay person to be confirmed by the U.S. Senate as Assistant Secretary of Fair Housing and Equal Opportunity during President Clinton's administration. As one of America's leading civil rights attorneys, she is admired for winning countless battles to protect basic human rights.

**Pedro Almodóvar:** a director, screenwriter, composer, and actor whose films have been nominated for various Academy Awards. He is one of the most well-known international film directors of our time.

**Carol Blazejowski:** in the world of college basketball, she is considered one of the hottest-shooting and high-scoring players, regardless of gender. Blazejowski, appropriately known as "The Blaze," tallied 3,199 points during a phenomenal 1974–1978 college career. Today, Blazejowski is an inductee of the Basketball Hall of Fame and the general manager of the New York Liberty team of the WNBA.

**Tracy Chapman:** a singer, songwriter, and musician. Chapman's debut album, *Fast Car*, earned her two Grammy Awards including Best New Artist, and Best Female Pop Vocal Performance. In 1999, Chapman was ranked amongst VH1's "The 100 Greatest Women of Rock 'N Roll."

**Michael Cunningham:** famous writer, and winner of various literary awards including the Pulitzer Prize and Pen/Faulkner Award for his best-selling novel *The Hours*.

**Melissa Etheridge:** a singer, songwriter, and musician. Her albums have been widely popular and have won several Grammy Awards.

**Rupert Everett:** a British actor who is a rising star in Hollywood. He is on his way to becoming Hollywood's first openly gay leading man.

**Barney Frank:** one of the few openly gay politicians in the U.S. Congress. He is a U.S. Representative from Massachusetts and has been in Congress since 1981. He is the Senior Democrat on the Financial Services Committee and is also a member of the Select Committee on Homeland Security.

**Peter Gomes:** an American Baptist minister, the author of several books on religion, and an openly gay man. Gomes is a member of the Faculty of Divinity at Harvard University. He has earned the prestigious Phi Beta Kappa Teaching Award at Harvard. Today, Rev. Gomes is a Harvard Chaplain and also serves as Harvard University Trustee of the Museum of Fine Arts in Boston.

**Martina Navratilova:** one of the greatest female tennis players in history who has been inducted in the International Tennis Hall of Fame. Her achievements include 58 Grand Slam titles, including nine at Wimbledon with six consecutive wins from 1982 to 1987.

**Bayard Rustin:** best known as the organizer of the 1963 Civil Rights March in Washington, one of the largest nonviolent protests ever held in the United States. In 1956, Rustin played a key role in persuading Civil Rights leaders, including Martin Luther King, to adopt complete nonviolence which was not the dominant philosophy of the movement prior to that.

**Megan Smith:** Ten years ago, she was one of three MIT graduates in mechanical engineering who were profiled in the *New York Times* as women who might revolutionize the technology and computer industry. Today, Smith serves as President of "PlanetOut Partners," a company which, under her leadership, grew 100% in corporate influence and revenue.

**Esera Tuaolo:** professional football player for nine years in the NFL. In the sports world, he is remembered as an exceptional defensive lineman for the teams he played with including the Minnesota Vikings, Jacksonville Jaguars, and the Carolina Panthers.

**Alan Turing:** was a mathematician and philosopher; a pioneer in the field of artificial intelligence; and the founder of what we know today as "computer science." He was responsible for helping to break the German military code during World War II, which was critical in allowing the United States and the Allied forces to win the war.

**Alice Walker:** famous writer and winner of various literary awards including the Pulitzer Prize for her best-selling novel *The Color Purple*.

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