



Reports

Reducing implicit prejudice: Matching approach/avoidance strategies to contextual valence and regulatory focus[☆]

Curtis E. Phillips^{a,*}, Alexander G. Santelli^b, Kerry Kawakami^a, C. Ward Struthers^a, E. Tory Higgins^b

^a York University, Canada

^b Columbia University, USA

ARTICLE INFO

Article history:

Received 28 October 2010

Revised 10 March 2011

Available online 27 March 2011

Keywords:

Prejudice reduction

Regulatory fit

Implicit prejudice

ABSTRACT

Two general strategies for reducing prejudice are to approach equality and to avoid prejudice. The current research investigated the importance of matching two factors, contextual valence and regulatory focus, on the efficacy of these two strategies in reducing implicit prejudice. The findings demonstrate that although an approach strategy is more effective in decreasing prejudice on the Implicit Association Test in a positive rather than a negative context, an avoidance strategy is more effective in decreasing prejudice in a negative rather than a positive context (Study 1). In addition, the results show that although an approach strategy is more effective in decreasing prejudice when a promotion rather than a prevention focus is primed, an avoidance strategy is more effective in reducing prejudice when a prevention rather than a promotion focus is primed (Study 2). The implications of these findings for current interventions aimed at decreasing implicit prejudice are discussed.

© 2011 Elsevier Inc. All rights reserved.

Social psychology has a long and rich history of investigating ways to reduce intergroup biases (Allport, 1954). For example, a recent online database has collected over 800 references related to strategies to reduce intergroup conflict and prejudice (Refworks, 2010). While these strategies include a diverse array of ways to ameliorate racism, two general routes to achieve this goal are to approach egalitarianism and to avoid prejudice (Trawalter & Richeson, 2006).

Notably, these two strategies have been tied to regulatory focus theory in that a strategic approach orientation is associated with a promotion focus and a strategic avoidance orientation is associated with a prevention focus (Forster, 2001; Higgins, 1997, 1998; cf. Carver & Scheier, 1998). Specifically, people with a promotion focus approach matches to desired end-states and their emphasis is on the presence or absence of positive outcomes. People with a prevention focus, on the other hand, avoid mismatches to desired end-states and their emphasis is on the presence or absence of negative outcomes (Higgins, Roney, Crowe, & Hymes, 1994). In the context of intergroup relations, Shah, Brazy, and Higgins (2002) have discovered a relation between regulatory orientation and ingroup bias vs. outgroup derogation. Specifically, they found that a chronic prevention focus predicts a strategic tendency to avoid outgroup members ("prevent them") whereas a chronic promotion focus predicts a strategic tendency to approach ingroup members ("promote us").

Especially pertinent to the present research is Trawalter and Richeson's (2006) investigation of the impact on executive functioning of adopting a strategy either to approach or to avoid during interracial interactions. They found that after an interracial interaction participants were less cognitively impaired, as indicated by better performance on a Stroop Task, when they were instructed to approach the interaction as an opportunity to enjoy intercultural dialog than when they were instructed to avoid appearing prejudiced during the interaction. While this research demonstrates that an approach orientation can alleviate costs associated with intergroup interactions on cognitive functioning, the primary goal of the present research was to examine whether the efficacy of approach vs. avoidance strategies in reducing implicit prejudice is dependent on their relation to other factors.

Though many factors might conceivably influence the effectiveness of approach and avoidance strategies, one process that might be especially important is regulatory fit. Regulatory fit occurs when individuals pursue a goal in a strategic manner that sustains (vs. disrupts) their regulatory orientation (Higgins, 2000). This orientation can be a self-regulatory concern, like a promotion or prevention concern, or it can be induced by various aspects of the environment or situation (Camacho, Higgins, & Luger, 2003; Santelli, Struthers, & Eaton, 2009). In the present case, for example, this could mean adopting a strategy to approach egalitarianism or to avoid prejudice that fits either a person's current regulatory focus or the valence of the immediate context. If either the valence of the current context (positive or negative) or a person's regulatory focus (promotion or prevention) matches the strategy to reduce intergroup biases, we predict that this strategy will be more effective in reducing prejudice (Cesario, Grant, & Higgins, 2004).

In particular, current theorizing suggests that a fit between strategic manner (e.g., approach and avoidance strategies) and self-regulatory

[☆] This research was supported by a Social Science and Humanities Research Council of Canada (SSHRC) graduate student grant to the first and second authors and standard research grants to the third and fourth authors.

* Corresponding author at: Department of Psychology, York University, 4700 Keele Street, Toronto, Canada, M3J 1P3. Fax: +1 416 736 5814.

E-mail address: phills@yorku.ca (C.E. Phillips).

concern can strengthen the extent to which people engage in their goal pursuits (Higgins, 2000, 2006). When a fit is experienced, people may pursue immediate goals more intensely and in a more focused way. Notably, in the current research, all participants were instructed to reduce prejudice, either by approaching egalitarianism or avoiding prejudice. We propose that when participants experience fit, they engage in their goal more strongly and pursue it more effectively.

Research has documented rich relations among approach/avoidance behaviors, valenced stimuli, and regulatory focus. In general, research has found that approach behaviors tend to be related to positive stimuli and promotion focus whereas avoidance behaviors tend to be related to negative stimuli and prevention focus. For example, there is convincing evidence that valenced stimuli elicit approach and avoidance movements (Chen & Bargh, 1999; Markman & Brendl, 2005; Solarz, 1960). Specifically, positively evaluated objects have been found to facilitate approach behaviors and negatively evaluated objects to facilitate avoidance behaviors. Actions related to approach and avoidance have also been found to influence attitudes. For example, people tend to evaluate objects and social categories more favorably after approach rather than avoidance actions (Cacioppo, Priester, & Berntson, 1993; Förster & Strack, 1997, 1998; Kawakami, Phills, Steele, & Dovidio, 2007; Neumann & Strack, 2000; Phills, Kawakami, Tabi, Nadolny, & Inzlicht, 2011; Priester, Cacioppo, & Petty, 1996). We expected, therefore, that people who approach egalitarianism in a context that better fits this self-regulatory concern, such as a positive rather than a negative context, would be more successful in reducing prejudice. Alternatively, we predicted that people who avoid prejudice in a negative compared to a positive context should be more successful at reducing prejudice because the former context better fits their self-regulatory concern. Because these participants experience fit, we expect them to pursue their respective strategies more intensely.

Furthermore, research has found a strong relation between approach/avoidance behaviors and regulatory focus. In particular, Förster, Higgins, and Idson (1998) demonstrated that promotion and prevention regulatory foci can influence the strength with which approach and avoidance behaviors are performed. Other related research has found that strategic approach motivation is more likely for people with a promotion focus whereas strategic avoidance motivation is more likely for people with a prevention focus (Higgins et al., 1994; Shah, Higgins, & Friedman, 1998). In fact, regulatory fit theory proposes that approaching matches to desired end-states fits promotion and avoiding mismatches to desired end-states fits prevention (Higgins, 1997, 1998, 2000). We further predicted that a fit between approach and avoidance strategies to reduce prejudice and regulatory focus would strengthen goal pursuit (Higgins, 2000, 2006) and would therefore be more effective in reducing bias.

When regulatory fit is experienced, people may pursue immediate goals more intensely and in a more focused way. Notably, in the current research, all participants were instructed to reduce prejudice, either by approaching egalitarianism or avoiding prejudice. Specifically, because we proposed that people that experience a regulatory fit would engage in their goal pursuits with greater intensity, we expected that people who approach egalitarianism with a regulatory focus that fit this strategy better, such as a promotion rather than a prevention focus, would be better at reducing prejudice. In contrast, we expected that people who avoid prejudice in a prevention rather than a promotion focus would be better at reducing prejudice because this avoidance strategy is a better fit with prevention than promotion.

Overview

Two studies investigated the effectiveness of approach and avoidance strategies in reducing bias on implicit prejudice as a function of their relation to two factors – contextual valence and regulatory focus. While these studies used diverse strategies and contexts to induce approaching egalitarianism or avoiding prejudice, bias was measured in both studies with an Implicit Association Test related to race (IAT; Greenwald, McGhee,

& Schwartz, 1998). We focused on implicit attitudes in the present research because these types of responses may be less amenable to social desirability and demand characteristic effects in an experimental setting. These issues may be particularly problematic in the examination of socially sensitive domains such as racial attitudes (Fazio & Olson, 2003; Greenwald et al., 1998; Lane, Banaji, Nosek, & Greenwald, 2007). Notably, recent theorizing and research have detailed the importance of implicit attitudes in shaping personal and social behavior in general (Bargh, 1997) and interracial behavior in particular (Dovidio, Kawakami, & Gaertner, 2002; Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Kawakami et al., 2007).

In particular, participants in Study 1 were presented with an anti-racism advertisement in the guise of a screensaver. This poster included text that either encouraged the reader to approach equality or avoid bias. This text was embedded in an array of images that were evaluatively positive and related to racial harmony or evaluatively negative and related to racial discord.

Because advertisements are a common strategy used to change explicit and implicit attitudes towards objects and social groups, we wanted to examine the effectiveness of these types of methods to reduce biases. For example, public service announcements have been utilized to reduce implicit negative attitudes toward tobacco and marijuana (Czyzewska & Ginsburg, 2007) and brochures and videos have been shown to successfully decrease implicit stereotyping of schizophrenics (Lincoln, Arens, Berger, & Rief, 2008). Notably, Maio, Haddock, Watt, and Hewstone (2009) have investigated the impact of actual anti-racism advertisements on implicit prejudice and found that these messages did not consistently reduce implicit prejudice.

One reason why advertisements may not have been successful in reducing intergroup bias in the latter study may be related to regulatory fit. In a quick search of antiracism advertisements on the internet we found that messages to either approach egalitarianism or avoid prejudice often did not match the valence of the advertisement. For example, messages that entreat people to avoid prejudice were presented in the context of images of racial harmony and positive intergroup relations and, similarly, messages imploring people to treat everyone equally were often embedded in other messages related to racism and racial violence. The goal of Study 1 was therefore to examine the effectiveness of advertisements related to approach and avoidance goals in the context of positive and negative images.

In Study 2, alternatively, participants were induced to approach egalitarianism or avoid prejudice by providing them with personal feedback on their own level of intergroup bias. This method has also often been proposed as an effective method to reduce prejudice. By confronting people with their own biases, it has been suggested that at least some people will then attempt to control these processes (Czopp & Monteith, 2003; Devine & Monteith, 1993; Hyers, 2007; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002). Specifically, participants in Study 2 were primed to adopt either a promotion or prevention focus before receiving instructions to approach equality or avoid prejudice based on their responses to an initial task.

In both Studies 1 and 2, we expected that approach and avoidance strategies to reduce prejudice would be more effective when they fit the contextual valence (positive and negative, respectively) or primed regulatory focus (promotion and prevention, respectively) than when mismatched.

Study 1

Method

Participants

One-hundred and five nonBlack undergraduates (33 male and 72 female; $M_{age} = 19.9$ years) were randomly assigned to condition in a Type of Strategy (Approach Equality vs. Avoid Prejudice) \times Type of Context (Positive vs. Negative) between-subjects design.

Procedure

To participate in this online study, students logged onto the website and were presented with a screen which instructed them to wait for 1 min for the study to load. During this interval, they were presented with an advertisement related to the strategy and context manipulations. After 1 min the advertisement disappeared and participants were presented with the Implicit Association Test which they were informed was the actual experiment.

Advertisement presentation. After participants logged into the study, one of four advertisements appeared in the center of the screen (see Fig. 1). These advertisements encouraged participants to either approach egalitarianism with the instructions “Say Yes to Equality” or to avoid prejudice with the instructions “Say No to Prejudice.” While half of the advertisements featured a background with positive imagery related to racial harmony (e.g., Dr. Martin Luther King, interracial friends, families, and couples), the other half of the advertisements featured a background with negative imagery related to racial discord (e.g., the Ku Klux Klan, burning crosses, and lynchings).

Implicit association test. Implicit prejudice against Blacks was assessed using the IAT (Greenwald et al., 1998; Kawakami et al., 2007). In this task, participants were required to categorize six photographs of Blacks and six photographs of Whites as well as six pleasant words (e.g., rainbow, peace) and six unpleasant words (e.g., filth, bomb) as quickly as possible during two critical blocks of trials. In the first critical block, participants were instructed to use the same key to categorize Blacks and pleasant words and another key to categorize Whites and unpleasant words. In contrast, in the second critical block, participants were instructed to use the same key to categorize Blacks and unpleasant words and another key to categorize Whites and pleasant words. The underlying rationale for the IAT is that the speed with which participants respond to two stimuli associated with the same key is an indication of implicit associations. IAT scores were calculated as the difference between the two critical blocks such that higher scores

indicated greater negative association with Blacks or implicit prejudice (Greenwald et al., 1998).

Results and discussion

To investigate the impact of approach and avoidance strategies and contextual valence on implicit prejudice, a Type of Strategy (Approach vs. Avoidance) × Type of Context (Positive vs. Negative) ANOVA was performed on the IAT scores. Only the predicted two-way interaction was significant, $F(1, 101) = 12.16, p < .01$. Simple effects analyses demonstrated that participants instructed to say yes to equality (i.e., the approach strategy) had significantly less implicit prejudice when those instructions were embedded in a positive ($M = 45, SD = 86$) rather than a negative ($M = 132, SD = 125$) context, $t(53) = 2.96, p < .01, d = .81$. Alternatively, participants instructed to say no to prejudice (i.e., the avoidance strategy) had significantly less implicit prejudice when those instructions were embedded in a negative ($M = 53, SD = 93$) rather than a positive ($M = 118, SD = 137$) context, $t(48) = 2.01, p < .05, d = .56$.

These findings provide new evidence that the impact of strategies to approach egalitarianism or avoid prejudice can be moderated by contextual valence. While an approach strategy was associated with lower implicit prejudice in a positive compared to a negative context, the reverse is true for an avoidance strategy. In particular, an avoidance strategy was associated with lower implicit prejudice in a negative compared to a positive context. These results are consistent with evidence that negative intergroup attitudes can, under certain circumstances, be reduced through simple messages embedded in posters and that anti-racism advertisements can successfully reduce prejudice (Maio et al., 2009). These findings, however, also provide a plausible explanation for why such campaigns may not always work. In particular, the impact of anti-racism advertisements may depend on the extent to which approach or avoidance strategies match the particular contextual valence of the ad. The present theorizing suggests that when an approach strategy is paired with a negative context to avoid or when an avoidance strategy is paired with a positive context to approach, these strategies may be less successful in reducing implicit prejudice. However, because the present study did not include a condition that did not induce either an approach or avoidance orientation, we were unable to specifically test whether matching reduced or mismatching increased implicit prejudice. To resolve this issue, a no strategy control condition was included in Study 2.

Furthermore, while Study 1 examined the importance of fit between approach and avoidance strategies to reduce prejudice and one type of regulatory concern, contextual valence, Study 2 investigated the fit between these strategies and regulatory focus. Because a promotion focus has been associated with a preference for approach strategies and a prevention focus has been associated with a preference for avoidance strategies (Higgins, 1997, 1998; Higgins & Spiegel, 2004), we expected that matching strategies to reduce prejudice with regulatory focus would impact participants ability to effectively engage in the target goals (Higgins, 2000) and succeed in reducing implicit biases. In particular, we expected that participants encouraged to approach egalitarianism and primed with a promotion rather than a prevention focus would demonstrate lower implicit prejudice. Alternatively, we expected that participants encouraged to avoid prejudice and primed with a prevention rather than a promotion focus would demonstrate lower implicit prejudice.

Study 2

Method

Participants

One-hundred and sixteen nonBlack (24 male and 92 female; $M_{age} = 19.4$ years) undergraduates were randomly assigned to condition

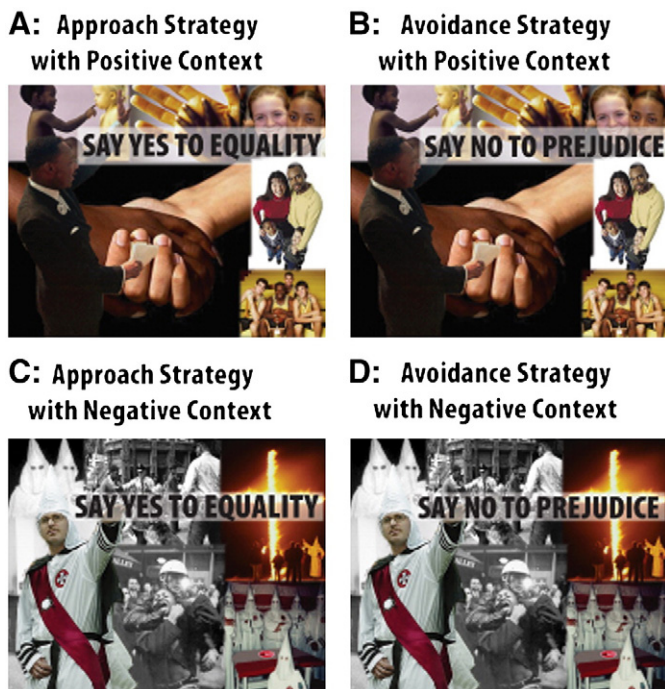


Fig. 1. Anti-racism advertisements presented to participants in Study 1. In particular, these advertisements combine an approach strategy with a positive (panel A) and negative (panel C) context as well as an avoidance strategy with a positive (panel B) and negative (panel D) context.

in a Type of Strategy (Approach vs. Avoidance vs. No Strategy) × Type of Regulatory Focus Prime (Promotion vs. Prevention) between-subjects design.

Procedure

Upon arrival, participants were informed that they would be completing a series of separate and unrelated studies before being led to a private cubicle and seated behind a personal computer. Although the first “study” was ostensibly about forming impressions of people, in reality, this task was designed to induce participants to describe Blacks in a stereotypic way. This task allowed the experimenter to utilize these responses to provide personalized feedback to the participants related to strategies to reduce bias. Although the second “study” was ostensibly a writing task intended to make use of the participants’ time while waiting for feedback from the first “study,” in reality, this task was designed to prime either a promotion or a prevention regulatory focus. Finally, although the third “study” was ostensibly about making rapid responses to different types of stimuli, this task was the IAT, designed to assess implicit prejudice against Blacks.

Stereotyping task. Based upon procedures developed by Monteith et al. (2002), participants were presented with a series of photographs of Blacks and Whites along with a brief description. The participants’ task was to guess the person’s occupation on the basis of this information. In total, participants were required to type in occupations for twenty people (10 Blacks and 10 Whites). While half of the photographs of Blacks were presented with descriptions (e.g., “This person could be found behind bars”) in which a stereotypic response was possible (e.g., a criminal), the remaining descriptions of both Blacks and Whites were not related to cultural stereotypes about Blacks (e.g., “This person can be found at the airport”). Of critical importance to the present context was that all participants provided at least two responses that could be considered stereotypic of Blacks and therefore we were able to provide feedback describing strategies to reduce prejudice (see below). Before receiving this feedback, however, all participants were presented with a regulatory focus prime.

Regulatory focus prime. All participants in this phase were asked to complete an unrelated writing task. Half of the participants were randomly assigned to the promotion prime condition where they were asked to write about their “hopes and aspirations” both now and as a child. The remaining participants were randomly assigned to the prevention prime condition where they were asked to write about their “sense of duty and obligation” both now and as a child (Higgins et al., 1994; Liberman, Idson, Camacho, & Higgins, 1999).

Feedback instructions presentation. After 10 min of writing, participants in the strategy conditions were presented on a computer screen with feedback about their responses during the Stereotyping Task. Although the feedback instructions were accurate because all participants made some stereotypic responses, the specific paragraph varied according to condition. Specifically, one third of the participants were randomly assigned to the approach egalitarianism condition in which they were told that some of their responses were stereotypic of Blacks and they were instructed to try to be egalitarian like Dr. Martin Luther King Jr., another third of the participants were randomly assigned to the avoid prejudice condition in which they were told that some of their responses were stereotypic of Blacks and they were instructed to not act prejudiced like the Ku Klux Klan, and a final third of the participants were randomly assigned to a no strategy control condition in which they did not receive feedback related to the Stereotyping Task.

Implicit association test. Finally, all participants completed the same IAT used in Study 1. IAT scores were calculated so that higher means represented greater implicit prejudice against Blacks (Greenwald et al., 1998).

Results and discussion

To investigate the impact of approach and avoidance strategies and regulatory focus orientation on implicit prejudice, a Type of Strategy (Approach vs. Avoidance vs. No Strategy) × Type of Regulatory Focus Prime (Promotion vs. Prevention) analysis of variance was performed on the IAT scores. Only the predicted two-way interaction was significant, $F(2, 110) = 4.34, p < .02$ (see Fig. 2). Simple effects analyses demonstrated that participants instructed to be egalitarian (i.e., the approach strategy) had significantly less implicit prejudice when primed with a promotion focus ($M = 36, SD = 127$) than a prevention focus ($M = 137, SD = 159$), $t(36) = 2.13, p = .04, d = .70$. Alternatively, participants instructed to not be prejudiced (i.e., the avoidance strategy) had marginally less implicit prejudice when primed with a prevention focus ($M = 41, SD = 107$) than a promotion focus ($M = 111, SD = 112$), $t(37) = 1.98, p = .06, d = .64$. Participants in the no strategy condition, in contrast, did not differ in their level of implicit prejudice regardless of whether they were primed with a promotion focus ($M = 125, SD = 119$) or a prevention focus ($M = 134, SD = 128$), $t(37) = .22, p = .83, d = .07$.

Together these findings indicate that regulatory focus can moderate the impact of strategies to approach equality and avoid prejudice on reducing implicit prejudice. In particular, while an approach strategy was more effective in reducing implicit prejudice when a promotion than a prevention focus was primed, an avoidance strategy was more effective when a prevention than a promotion focus was primed. Although it is important to note that all participants in Study 2 were presented with the Stereotyping Task and therefore to some extent may have become aware of their own biases which may have influenced baseline responding on the IAT across all conditions, the theoretical focus of the present study was on the impact of fit between approach and avoidance strategies and regulatory focus. While in general, the Stereotyping Task may have conceivably increased or decreased biased responding on the IAT, the present findings emphasize the added importance of matching an approach strategy with a promotion focus and an avoidance strategy with a prevention focus to significantly reduce implicit prejudice.

In summary, these results suggest that racism can be reduced by implementing strategies that fit a person’s current regulatory focus. Moreover, the results related to the control conditions indicate that this effect is due to a reduction in prejudice when there is a fit between approach and avoidance strategies and regulatory focus (i.e., promotion and prevention, respectively) rather than an increase in prejudice when there is a nonfit.

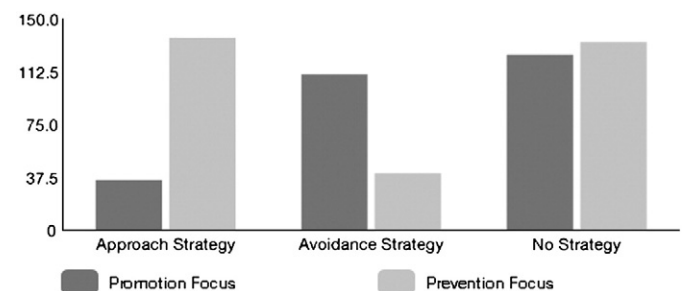


Fig. 2. Impact of approach or avoidance prejudice reduction strategy and regulatory focus prime on implicit prejudice in Study 2.

General discussion

The main purpose of the current research was to investigate the impact of approach and avoidance strategies on prejudice reduction and two possible moderators of this process – contextual valence and regulatory focus orientation. The results demonstrate that an approach strategy is more effective in reducing implicit prejudice in a positively valenced context (Study 1) and for individuals with a promotion focus (Study 2). Alternatively, an avoidance strategy is more effective in a negatively valenced context (Study 1) and for individuals with a prevention focus (Study 2).

The current findings complement recent research investigating the impact of approach orientations on interracial interactions (Trawalter & Richeson, 2006) and implicit prejudice (Kawakami et al., 2007; Phills et al., 2011). While Trawalter and Richeson (2006) found that participants instructed to adopt an approach rather than avoidance motivation during an interracial interaction subsequently had less cognitive depletion (Trawalter & Richeson, 2006), our results indicate that under certain conditions, both approach and avoidance motivations can successfully decrease implicit prejudice. Although we believe that these findings are not in opposition because prejudice reduction and cognitive depletion are very distinct processes, it is possible that an avoidance orientation may be a more effortful form of self-regulation that regulatory fit can overcome. To investigate this possibility, future research should examine the impact of approach and avoidance strategies in conjunction with regulatory fit on strength of goal pursuit, cognitive depletion, and prejudice reduction.

Similarly, while Kawakami and Phills (Kawakami et al., 2007; Phills et al., 2011) found that training to conceptually approach rather than avoid Blacks in general can reduce implicit prejudice and promote positive intergroup interactions, we believe that these findings are not necessarily in conflict with the present results. In particular, while the present research demonstrates that both approach and avoidance strategies can be effective when they fit the appropriate contextual valence and regulatory focus, the two orientations in these experiments were related to approaching egalitarianism and avoiding prejudice rather than approaching and avoiding Blacks. While it is possible that regulatory fit and contextual valence may also moderate the impact on prejudice reduction from approaching social categories, we believe that in the absence of these variables, as demonstrated by Kawakami and Phills, approach behaviors can successfully decrease implicit biases.

It is important to note that approach and avoidance motivations in the present research were induced in very distinct ways. In Study 1, participants were simply presented with an advertisement in the guise of a screensaver for 1 min. In this advertisement, the phrases *say yes to equality* or *no to prejudice* were embedded without any further instructions. Alternatively, in Study 2, participants were given feedback about how they might decrease their own personal use of stereotypes. Despite these different techniques, both manipulations were able to reduce implicit prejudice when matched with the appropriate contextual valence and regulatory focus.

Notably, these findings highlight the importance of fit when inducing or encouraging people to adopt approach or avoidance strategies. Specifically, consistent with research that an approach orientation is geared to movements toward positive stimuli (Cacioppo et al., 1993; Chen & Bargh, 1999; Kawakami et al., 2007; Phills et al., 2011) and a promotion focus (Forster et al., 1998; Higgins et al., 1994; Shah et al., 1998), the current findings found that approach motivations to reduce prejudice were most effective in a positive context and with people primed to adopt a promotion regulatory focus that is marked by a preference for strategic approach. Similarly, because an avoidance orientation is geared to movements away from negative stimuli and a prevention focus, the current findings found that avoidance motivations to reduce prejudice were most effective in a negative context and with people primed to adopt a prevention

regulatory focus that is marked by a preference for strategic avoidance. While further research is recommended, we suggest that this reduction occurs because a match between strategic means and regulatory orientations such as promotion or prevention concern or contextual valence can strengthen the extent to which people engage in their goal pursuits (Higgins, 2000).

By emphasizing strategic approach and avoidance, we believe that the current findings may have implications beyond modifications in attitudes to changing behaviors. Because approach and avoidance are inherently related to action (Elliot, 2008), implementing techniques that utilize these orientations may significantly impact discriminatory behaviors (Kawakami et al., 2007; Phills et al., 2011). In addition, the notion of matching approach and avoidance strategies to the immediate context or current self-regulatory focus of the audience may prove fruitful for fields other than prejudice reduction, such as environmental advocacy. For example, it may be possible to increase *green* behavior by adopting an approach strategy to recycling or by adopting an avoidance strategy to not litter. By investigating whether contextual valence and audience regulatory focus can influence the efficacy of environmental messages on taking *green* actions, future research can extend the current focus on intergroup attitudes and relations to other socially desirable responses.

In closing, our research suggests the exciting prospect that matching approach and avoidance strategies to reduce prejudice with the appropriate context and audience may be an effective tool in the battle against prejudice. In particular, it suggests ways in which well-intentioned people can adopt anti-racist objectives and succeed in progressing toward them.

References

- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Bargh, J. A. (1997). The automaticity of everyday life. In R. Wyer (Ed.), *Advances in social cognition*, vol. 10. (pp. 1–61) Mahwah, NJ: Erlbaum.
- Cacioppo, J. T., Priester, J. R., & Berntson, G. G. (1993). Rudimentary determinants of attitudes: II. Arm flexion and extension have differential effects on attitudes. *Journal of Personality and Social Psychology*, 65, 5–17. doi:10.1037/0022-3514.65.1.5.
- Camacho, C. J., Higgins, E. T., & Luger, L. (2003). Moral value transfer from regulatory fit: What feels right is right and what feels wrong is wrong. *Journal of Personality and Social Psychology*, 84, 498–510.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.
- Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from “feeling right”. *Journal of Personality and Social Psychology*, 86, 388–404.
- Chen, M., & Bargh, J. A. (1999). Consequences of automatic evaluation: Immediate behavioral predispositions to approach or avoid the stimulus. *Personality and Social Psychology Bulletin*, 25, 215–224.
- Czopp, A. M., & Monteith, M. J. (2003). Confronting prejudice (literally): Reactions to confrontations of racial and gender bias. *Personality and Social Psychology Bulletin*, 29, 532–545.
- Czyzewska, M., & Ginsburg, H. J. (2007). Explicit and implicit effects of anti-marijuana and anti-tobacco TV advertisements. *Addictive Behaviors*, 32, 114–127.
- Devine, P. G., & Monteith, M. J. (1993). The role of discrepancy associated affect in prejudice reduction. In D. M. Mackie & D.L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in intergroup perception* (pp. 317–344). New York: Academic Press.
- Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, 82, 62–68.
- Elliot, A. J. (2008). *Handbook of approach and avoidance motivation*. Hillsdale, NJ: Erlbaum.
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and uses. *Annual Review of Psychology*, 54, 297–327.
- Förster, J., & Strack, F. (1997). Motor actions in retrieval of valenced information: A motor congruence effect. *Perceptual and Motor Skills*, 85, 1419–1427.
- Förster, J., & Strack, F. (1998). Motor actions in retrieval of valenced information: II. Boundary conditions for motor congruence effects. *Perceptual and Motor Skills*, 86, 1423–1426.
- Forster, J. (2001). Success/failure feedback, expectancies, and approach/avoidance motivation: How regulatory focus moderates classic relations. *Journal of Experimental Social Psychology*, 37, 253–260.
- Forster, J., Higgins, E. T., & Idson, C. I. (1998). Approach and avoidance strength as a function of regulatory focus: Revisiting the “goal looms larger” effect. *Journal of Personality and Social Psychology*, 75, 1115–1131.
- 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., Poehlman, T. A., Uhlmann, E., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, 97, 17–41.
- Higgins, E. T. (1997). Beyond pleasure and pain. *The American Psychologist*, 52, 1280–1300.
- Higgins, T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, vol. 30. (pp. 1–46) New York: Academic Press.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *The American Psychologist*, 55, 1217–1230.
- Higgins, E. T. (2006). Value from hedonic experience and engagement. *Psychological Review*, 113, 439–460.
- Higgins, E. T., Roney, C. J. R., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology*, 66, 276–286.
- Higgins, E. T., & Spiegel, S. (2004). Promotion and prevention strategies for self-regulation: A motivated cognition perspective. In R. F. Baumeister (Ed.), *Handbook of self regulation: Research, theory, and applications* (pp. 171–187). New York, NY: Guilford Press.
- Hyers, L. L. (2007). Resisting prejudice every day: Exploring women's assertive responses to anti-Black racism, anti-Semitism, heterosexism, and sexism. *Sex Roles*, 56, 1–12.
- Kawakami, K., Phills, C. E., Steele, J. R., & Dovidio, J. F. (2007). (Close) Distance makes the heart grow fonder: Improving implicit racial attitudes and interracial interactions through approach behaviors. *Journal of Personality and Social Psychology*, 92, 957–971.
- Lane, K. A., Banaji, M. R., Nosek, B. A., & Greenwald, A. G. (2007). Understanding and using the Implicit Association Test: IV: Procedures and validity. In B. Wittenbrink & N. Schwarz (Eds.), *Implicit measures of attitudes: Procedures and controversies* (pp. 59–102). New York: Guilford Press.
- Liberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology*, 77, 1135–1145.
- Lincoln, T. M., Arens, E., Berger, C., & Rief, W. (2008). Can antistigma campaigns be improved? A test of the impact of biogenetic vs. psychosocial causal explanations on implicit and explicit attitudes toward schizophrenia. *Schizophrenia Bulletin*, 34, 984–994.
- Maio, G. R., Haddock, G., Watt, S. E., & Hewstone, M. (2009). Implicit measures in applied contexts: An illustrative examination of antiracism advertising. In R. E. Petty, R. H. Fazio, & P. Brinol (Eds.), *Attitudes: Insights from the new implicit measures* (pp. 327–360). New York: Psychology Press.
- Markman, A. B., & Brendl, C. M. (2005). Constraining theories of embodied cognition. *Psychological Science*, 16, 6–10.
- Monteith, M. J., Ashburn-Nardo, L., Voils, C. I., & Czopp, A. M. (2002). Putting the brakes on prejudice: On the development and operation of cues for control. *Journal of Personality and Social Psychology*, 83, 1029–1050.
- Neumann, R., & Strack, F. (2000). Approach and avoidance: The influence of proprioceptive and exteroceptive cues on encoding of affective information. *Journal of Personality and Social Psychology*, 79, 39–48, doi:10.1037/0022-3514.79.1.39.
- Phills, C. E., Kawakami, K., Tabi, E., Nadolny, D., & Inzlicht, M. (2011). Mind the gap: Increasing associations between the self and blacks with approach behaviors. *Journal of Personality and Social Psychology*, 100, 197–210.
- Priester, J. R., Cacioppo, J. T., & Petty, R. E. (1996). The influence of motor processes on attitudes toward novel versus familiar semantic stimuli. *Personality and Social Psychology Bulletin*, 22, 442–447, doi:10.1177/0146167296225002.
- Refworks (2010). Retrieved July 14, 2010, from <http://refworks.com/refshare/?site=010141135929600000/RWWS5A1333317/Prejudice%20reduction>
- Santelli, A. G., Struthers, C. W., & Eaton, J. (2009). Fit to forgive: Exploring the interaction between regulatory focus, repentance, and forgiveness. *Journal of Personality and Social Psychology*, 96, 381–394.
- Shah, J. Y., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285–293.
- Shah, J. Y., Brazy, P. C., & Higgins, E. T. (2002). Promotion and prevention forms of ingroup bias. In D. M. Mackie & E.R. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 31–48). New York: Psychology Press.
- Solarz, A. K. (1960). Latency of instrumental responses as a function of compatibility with the meaning of eliciting verbal signs. *Journal of Experimental Psychology*, 59, 239–245.
- Trawalter, S., & Richeson, J. A. (2006). Regulatory focus and executive function after interracial interactions. *Journal of Experimental Social Psychology*, 42, 406–412.