

Running head: THE PERSONAL DILEMMA OF UNINTENTIONAL BIAS

Changing Implicit Bias vs Empowering People to Address the Personal Dilemma of  
Unintentional Bias

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Preparation of this chapter was supported by an internal grant from the Office of the Provost of the University of Wisconsin-Madison awarded to both authors, NIH grant 1R35GM128888-01 awarded to the first author and NIH grants 5R01GM111002-02 and 1R35GM127043-01, as well as a WARF Professorship awarded to the second author.

A primary goal of prejudice and stereotyping research is to reduce intergroup disparities arising from various forms of bias. For the last 30 years, much, perhaps most, of this research has focused on implicit bias as the crucial construct of interest. There has been, however, considerable confusion and debate about what this construct is, how to measure it, whether it predicts behavior, how much it contributes to intergroup disparities, and what would signify successful intervention against it. We argue that this confusion arises in part because much work in this area has focused narrowly on the automatic processes of implicit bias without sufficient attention to other relevant psychological constructs and processes, such as people's values, goals, knowledge, and self-regulation (Devine, 1989). We believe that basic research on implicit bias itself is important and can contribute to reducing intergroup disparities, but those potential contributions diminish if and when the research disregards controlled processes and the personal dilemma faced by sincerely nonprejudiced people who express bias unintentionally. We advocate a renewed focus on this personal dilemma as an important avenue for progress.

### **Implicit Bias**

Stereotypes and evaluative associations about social groups are woven into the fabric of our culture. Children learn stereotypes about social groups at a young age, long before they develop the moral reasoning capacity to question or challenge those stereotypes (Devine, 1989). By adulthood, stereotypes are so well-learned that they become the default, habitual response to members of stereotyped groups. Spontaneous or automatic stereotype activation can lead to biases in affect, behavior, and cognition, sometimes without awareness. These automatically activated associations give rise to what is commonly called "implicit bias".

Because the various real-world manifestations of bias (e.g., stereotypic inferences, reduced eye contact, "microaggressions") are often labor-intensive, difficult, or impossible to

reliably produce in laboratory settings, many researchers use reaction-time tasks as easy-to-collect proxy measures of implicit bias. These reaction time measures, in particular the Implicit Association Test (IAT), are so pervasive that the construct of “implicit bias” has become almost synonymous with “IAT bias”. The usefulness of the IAT as a proxy for real-world biases, however, is predicated on the IAT being a strong and reliable predictor of those biases — an assumption which, at best, is hotly debated (Greenwald, Banaji, & Nosek, 2015; Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Oswald, Mitchell, Blanton, Jaccard, & Tetlock, 2015).

Because, for many,<sup>1</sup> implicit bias and IAT bias have become nearly synonymous, the debate over the IAT’s predictive validity often becomes a debate about whether implicit bias is “real” or an actual problem (Singal, 2017a & 2017b). We believe these debates are somewhat misguided, at least for the goal of reducing intergroup disparities and improving intergroup reactions. Whether or not the IAT predicts behavior, abundant anecdotal and research evidence indicates that many people behave with more bias than they think is appropriate, and sometimes behave in biased ways without realizing it (e.g., Devine, 1989; Monteith, 1993; Plant & Devine, 1998). Whether predicted by the IAT or not, people do exhibit biases unintentionally, in opposition to their goals, motivations, and values. Implicit bias is real, and poses a dilemma for those who wish to behave in non-prejudiced ways.

At first glance, reducing implicit bias directly seems like a potentially fruitful means to reducing intergroup disparities. After all, if one could erase the mental associations giving rise to implicit bias, or otherwise stop them from being activated, implicit biases could not give rise to

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<sup>1</sup> Although we argue that the IAT is the predominant indicator of implicit bias, many researchers have put considerable effort into more precise definitions and measures of implicit biases. For excellent discussion of these issues, as well as issues surrounding the predictive validity of implicit measures, see Bodenhausen & Petsko’s chapter in this volume.

biased affect, behavior, or cognition. This area of research has been prolific: A recent meta-analysis revealed 492 experiments testing methods to eliminate or reduce the activation of implicit bias (Forscher, Lai et al., *in press*). Many of these attempts have been successful, at least short-term. Long-term change, however, has been more elusive — when the implicit bias interventions in this meta-analysis caused decreases in IAT bias, those decreases have never been shown to last longer than 24 hours (Forscher, Lai, et al., *in press*; Lai et al., 2014). Further, when behavioral outcomes are assessed, these decreases in reaction time indicators of implicit bias do not correspond to reductions in biased behavior (Forscher, Lai, et al., *in press*).

We believe that most of these approaches fail at producing long-term change because they are designed to eliminate or reduce implicit bias directly, while disregarding the role of pre-existing personal motivations. Implicit bias reduction methods typically involve participants as passive recipients of a treatment completed at the behest of an experimenter. Many of these studies, for example, involve some form of priming (e.g., exposing participants to counterstereotypic exemplars; Dasgupta & Greenwald, 2001) conditioning (e.g., Olson & Fazio, 2006), or mundane behavior (e.g., pulling or pushing a lever to activate approach/avoidance; Kawakami, Phills, Steele, & Dovidio, 2007). The participants do not know why they are completing the task, although it does, passively, shift their responses on measures of implicit bias. If one could control all the primes/exemplars to which people are exposed in the world, techniques like these might create lasting change; however, that is an impractical solution.. Once participants leave the laboratory, they return to a culture filled with biases and stereotypic portrayals that quickly override whatever manipulation they were exposed to in the lab. Even if one could erase completely the biased associations from the brain, people would shortly relearn the statistical realities linking social groups and attributes frequently encountered in culture. We

argue that externally-induced reductions in implicit bias such as those reviewed in Forscher, Lai, et al. (*in press*) are unlikely to produce meaningful lasting effects or to be, in and of themselves, a solution to bias-created disparities.

Although unlikely to create long-term changes, basic research on implicit bias is valuable for helping to understand some of the features of these automatic mental processes. For the goal of reducing intergroup disparities that arise from implicit bias, however, we advocate an approach that enlists people's personal motivations and empowers them as active agents of change. In contrast to approaches trying to reduce implicit bias directly through external manipulations, empowerment approaches show substantial promise in creating long-term change (see also Cox, Abramson, Devine, & Hollon, 2012; Forscher & Devine, 2015).

### **Empowering People to Address the Personal Dilemma of Unintentional Bias**

If one's goal is to reduce intergroup disparities, we argue that one should consider implicit bias in conjunction with other psychological processes. Specifically, the relevance of implicit bias for addressing intergroup disparities varies as a function of a person's personal values related to prejudice. For people whose values permit expressions of bias (e.g., people high in prejudice or low in internal motivation to respond without prejudice; Plant & Devine, 1998), implicit biases are not at odds with personally-important values. Implicit biases, however, run counter to the goals and intentions of those who have personal values that *oppose* bias (e.g., people low in prejudice or high in internal motivation to respond without prejudice). For these highly internally-motivated people, implicit bias creates a dilemma, in which earnestly-held egalitarian values are at odds with implicit biases (Devine, 1989; Devine, Monteith, Zuwerink, & Elliot, 1991; Monteith, 1993; Plant & Devine, 1998). We use the term *unintentional bias* to

characterize this dilemma, distinguishing the experience of those whose values oppose prejudice from those whose values are permissive of prejudice.

Decades of research by Devine, Monteith, and their colleagues have shown that people's personal values that oppose prejudice are important for regulation and effort to reduce bias (Devine, Forscher, Austin, & Cox 2012; Forscher, Mitamura, Dix, Cox, & Devine, 2017; Monteith, 1993; Monteith et al. 2002). Values are central to people's senses of self, and are therefore chronically salient, carried across situations and contexts. When people with egalitarian values learn that they have displayed or could display bias, they feel guilty and they increase their regulation efforts (Amodio, Devine, & Harmon-Jones, 2007; Monteith, 1993; Monteith et al., 2002; Plant & Devine, 2009). We argue that focusing narrowly on changing implicit bias itself in the service of producing long-lasting meaningful change is ill-advised. Rather, meaningful change is much more likely to follow from efforts that 1) enlist people's personal values to motivate change and 2) empower them to be effective agents of their own change. In short, rather than change being something done *to* people, we can empower people with tools of change to carry forward and use themselves, in a self-sustaining way.

### **The Prejudice Habit-Breaking Intervention**

Initial evidence supporting an empowerment approach comes in the form of the prejudice habit-breaking intervention (Devine et al., 2012; Forscher et al., 2017). Over the last ten years, this intervention has been tested in a dozen randomized-controlled studies, showing consistent long-lasting effects in important outcomes related to bias. The prejudice habit-breaking intervention is a multifaceted educational presentation that has four key components. The intervention 1) introduces the concept of unintentional bias, and 2) reveals the subtle, powerful, and pernicious consequences of bias, 3) provides a realistic, self-driven model of change, and 4)

teaches strategies to reduce bias. The first two components give participants knowledge that increases their awareness of unintentional bias in a way that minimizes defensiveness, and the latter two components empower participants and create self-efficacy to make lasting reductions in bias (see Cox & Devine, *in press*).

Rather than trying to directly alter implicit bias, the prejudice habit-breaking intervention engages people's egalitarian values in a way that motivates and empowers them to put effort into reducing bias. In order for individuals to regulate the expression of bias, they must 1) be aware of their vulnerability to expressing bias unintentionally and 2) be concerned that unintentional biases contribute to negative outcomes for members of stigmatized groups. Across several studies, intervention participants increased in their reported awareness of their potential to express bias compared to control participants, and this increase lasts up to at least two years after they completed the intervention (Carnes et al., 2015; Devine et al., 2012; Forscher et al., 2017). Additionally, the intervention also led to increases in the extent to which participants were concerned about racial discrimination as a serious social problem that needs to be addressed (Devine et al., 2012), which also lasted up to two years (Forscher et al., 2017). Awareness of and concern about unintentional bias are necessary before people will put effort into reducing its influence in their thinking about and treatment of others. Further, unlike any attempts to directly alter implicit bias, these outcomes have the potential to reduce intergroup disparities in other ways (e.g., concern about discrimination may lead to endorsement of public policies that reduce discrimination or greater receptivity to confrontations of bias from member of marginalized groups Dix, Harris, & Devine, *in prep*).

Although directly altering implicit bias is not the focus of the prejudice habit-breaking intervention, across six experiments (Devine et al., 2012; Forscher et al., 2017; Cox, Dix, Scott,

& Devine, *unpublished*), participants who went through the prejudice habit-breaking intervention show significant decreases in implicit bias as measured by the IAT that last out to at least 8 weeks. In three of these studies (e.g., Devine et al., 2012), the intervention group's IAT scores decrease but the control group's IAT scores remain the same, which would imply that the intervention causes long term reductions in implicit bias. In the other three studies (e.g., Forscher et al., 2017), however, the control participants' IAT scores also decrease, which could indicate some sort of practice effect on the IAT. This inconsistency of patterns with the control participants makes our overall conclusions tentative, but the consistency of the effects with intervention participants may indicate that the intervention causes long-term change in the expression of implicit bias. Regardless of the robustness of this IAT effect, however, participants' self-reports indicate that the intervention indeed empowers them to more effectively address the dilemma of unintentional bias. Compared to controls, intervention participants are more likely to report noticing biases within themselves and within the world around them, and they report greater self-efficacy to address those biases.

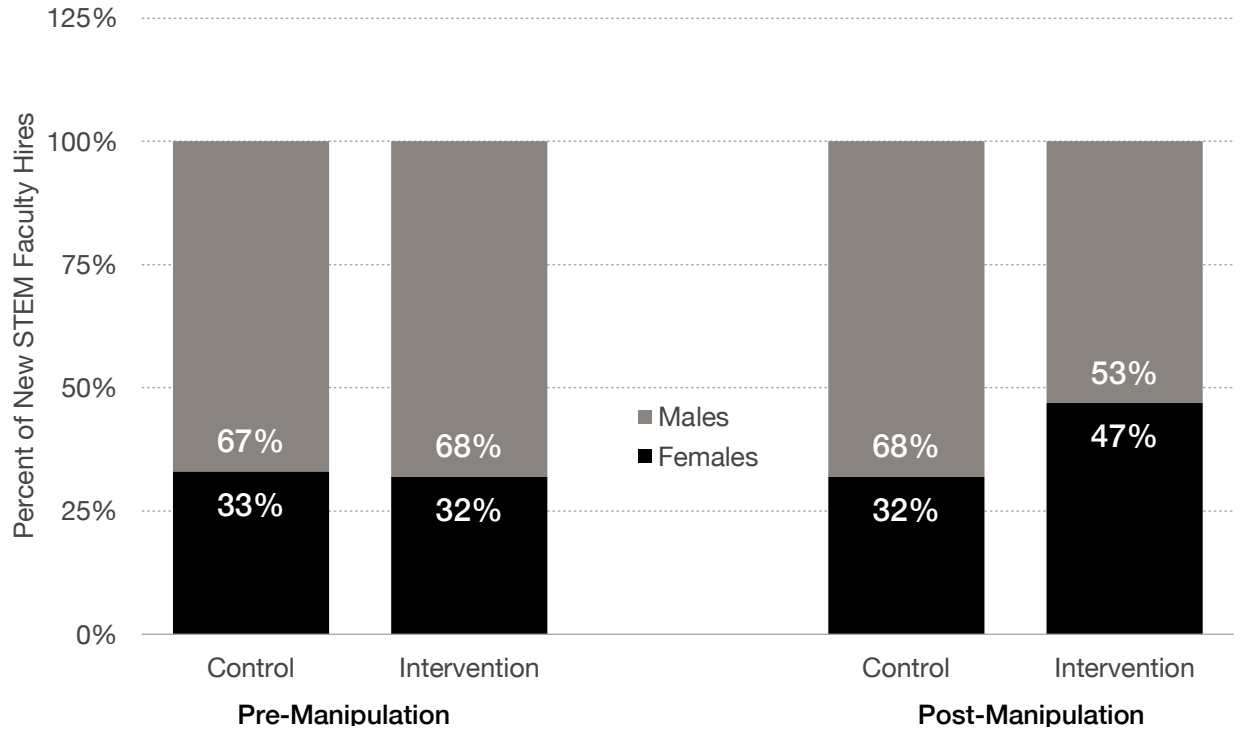
Although the prejudice habit-breaking intervention's primary focus is on empowering individuals' self-regulation, evidence indicates the intervention also helps people to become agents of change in the world around them. Compared to control participants, intervention participants are more likely to notice and label bias in others and in themselves (Forscher et al., 2017), report higher levels of self-efficacy to address bias, and report taking more actions to address bias in their social environments (Carnes et al., 2015). Among college students, the intervention led to participants being more likely to take personal responsibility to create a welcoming environment for members of stigmatized groups on campus (Cox, Dix, Scott, & Devine, *unpublished manuscript*). When exposed to an editorial claiming that stereotypes are



harmless and useful that would ostensibly be published in a student newspaper, intervention participants were more likely than control participants to write a response disagreeing with the author that would be published alongside the editorial (Forscher et al., 2017). This type of outcome likely would not result from an intervention directly altering implicit associations, because it arises from concrete, specific knowledge of the way stereotypes cause harm. The prejudice habit-breaking intervention empowers people to take action not only against potential bias within themselves, but in the world around them.

Also supporting the empowerment approach is a cluster-randomized trial conducted with academic departments in science, technology, engineering, and math (STEM) fields. A key problem in STEM is underrepresentation of women and unwelcoming climates for women in STEM contexts. We developed a version of the habit-breaking intervention focused on gender and STEM, and STEM departments at UW-Madison were randomly assigned to receive this intervention or to serve as control departments (Carnes et al., 2015). In a campus climate survey, departments that received the intervention had more positive overall climate than control departments. Both male and female faculty in intervention departments felt that their work was more valued, and felt more comfortable raising family obligations than faculty in control departments. Of key concern in the STEM context is the underrepresentation of women, and we assessed the extent to which the prejudice habit-breaking intervention led to differences in the gender balance of new faculty hires (Devine et al., 2017). In the two years before our study, new faculty hires were 32% and 33% women in the intervention and control departments, respectively. In the two years following our study, percent of new female faculty hires did not change in control departments (32%), but increased by 15 percentage points in intervention departments (47%). See Figure. These patterns provide initial but promising evidence that the

prejudice habit-breaking intervention, although focused on individual-level empowerment, also led to beneficial institutional-level effects.



**Figure. Effects of Gender Habit-Breaking Intervention on STEM Faculty Hires.**

The prejudice habit-breaking intervention was adapted for the gender/STEM context and tested in a cluster-randomized experiment using academic STEM departments. In the two years prior to the study, the proportion of new hires who were women was comparable for both intervention and control departments. After the study, control department rates remained unchanged, but rates of female hires in intervention departments increased (Devine et al., 2017).

### Revisiting Rokeach to Determine Ideal Targets for Change

The discussion about determining an intervention's ideal target for change brings to mind Rokeach's (1973) highly influential theoretical approach to understanding the connection between psychological constructs and behaviors. In brief, Rokeach argued that the psychological constructs most closely related to the self—such as personal values that oppose bias—have the strongest influences on behavior across situations and across time. Constructs less central to the

self have less pervasive influences on behavior. Rokeach's approach predates the construct of "implicit bias", but if we were to add it to Rokeach's model, it would be very far from the self, and therefore low on the hierarchy of constructs that influence behavior. See Table.

<b>Psychological Construct</b>	<b>Centrality to Sense of Self</b>	<b>Malleability</b>	<b>Influence on Behavior Across Time and Situations</b>	<b>Candidacy for Intervention</b>
<b>Values</b>	High	Low	Broad	Values are unlikely to be changed by intervention, but if the intervention and the values align, the intervention could appeal to one's values to motivate change processes.
<b>Knowledge</b>	Moderate	Moderate	Moderate	Knowledge is the ideal target for an intervention to create lasting change. It is far enough from the self that outside sources can change it, but it is central enough to the self that it can be relatively stable in its influence across times and situations.
<b>Automatic Associations (Implicit Bias)</b>	Low	High	Narrow	Automatic associations' activation patterns can easily be altered by interventions, because their distance from the self makes them highly malleable in the moment (e.g., in the priming and implicit bias research reviewed earlier). However, this high level of malleability means that any observed change is short-lived: externally-induced reductions in implicit bias are easily undone once one leaves the intervention context and is exposed to biased primes in culture.

**Table. Adaptation of Rokeach (1973).** Psychological constructs that are more central to the self have broader influences on behavior and are less malleable. In our adaptation of Rokeach's model, the three key levels of constructs are Values, Knowledge, and Automatic

Associations. Implicit bias is a form of automatic associations. We argue that knowledge is the ideal target for intervention, because it has the ideal balance of malleability and longevity. Indeed, the prejudice habit-breaking intervention targets knowledge. Specifically, the intervention teaches people about unintentional bias and the process of reducing its influences on behavior. For those whose values oppose bias, this knowledge reveals the ways in which people's behavior may fall short of their egalitarian values and teaches them strategies to bring their behavior more in line with intentions. Interventions that target implicit bias directly are able to create changes in the expression of implicit bias in the short-term, because its unimportance to the self makes it highly malleable.<sup>2</sup> However, its unimportance to the self also means that the changes do not carry forward. Direct alterations to the expression of implicit bias do not engage the constructs (e.g., Knowledge and Values) that endure across time and situations.

Constructs central to the self (e.g., Values) are difficult to change, because they are personally important to people. Constructs noncentral to the self (e.g., Automatic Associations, such as implicit bias) can be easily manipulated by outside influence, because they are unimportant to people's sense of self. This unimportance also means that changes to noncentral constructs are unlikely to endure over time, because people have no motivation to engage in the change process. Indeed, as noted above, interventions that directly target implicit bias rarely engage participants in the change process; participants complete intervention tasks at the behest of an experimenter, rather than in pursuit of a personally important long-term goal (see also Forscher & Devine, 2014). We argue that Knowledge is the ideal target for an intervention to create lasting change. Knowledge is far enough from the self that outside forces can change it, and central enough to the self that it influences behavior across contexts.

The prejudice habit-breaking intervention provides knowledge that helps people recognize their potential to express bias. It then empowers people to reduce the influence of that

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<sup>2</sup> When we discuss implicit bias being highly malleable, we are referring specifically to the expression of implicit bias in the moment (e.g., responses on reaction time measures). We do not mean to imply that the cognitive associations, which have been well-rehearsed across the lifetime, are easily erased. Their expression, however, can be easily shifted around in the moment.

bias on their behavior by teaching strategies to regulate the expression of bias and a realistic understanding of what is involved in the process of disrupting habits. Because this knowledge reveals people's potential to fall short of their personally important values, it leverages the influence those values have across situations to motivate the change process (Monteith, 1993). This motivation, paired with knowledge about effective strategies to bring their behavior in line with their values, creates a lasting, self-sustaining change process.

### **Conclusions**

Rather than targeting implicit bias in isolation, the habit-breaking approach contextualizes implicit bias as one piece of the personal dilemma faced by well-intentioned people who are vulnerable to bias. Approaches that try to directly change implicit bias are unlikely to result in lasting change, but they have the potential to advance our basic understanding of the automatic mental processes. For the goal of reducing intergroup disparities that arise from implicit bias, however, we argue (and the evidence thus far indicates) that we would be better served by approaches that emphasize implicit bias in conjunction with people's values and motivations. Further, we recommend assessing a wider variety of outcome measures, rather than using the IAT as a proxy for real-world behaviors. We advocate a renewed focus on unintentional bias as a personal dilemma faced by people with nonprejudiced personal values. In everyday life, many people struggle with their unintentional biases, and are motivated to overcome them. If we can equip these well-intentioned people with more effective ways to address their own biases, it will empower them to be agents of change within themselves and their social environments. In contrast to approaches focused on directly altering implicit biases, empowerment-based approaches to reducing the influence of unintentional bias, such as the prejudice habit-breaking intervention, show great promise in service of the long-term goal of reducing intergroup disparities and promoting equity and inclusion.

## References

- Amodio, D. M., Devine, P. G., & Harmon-Jones, E. (2007). A Dynamic Model of Guilt: Implications for Motivation and Self-Regulation in the Context of Prejudice. *Psychological Science, 18*(6), 524–530. <https://doi.org/10.1111/j.1467-9280.2007.01933.x>
- Carnes, M., Devine, P. G., Manwell, L. B., Byars-Winston, A., Fine, E., Ford, C. E., Forscher, P., Isaac, C., Kaatz, A., Magua, W., Palta, M., Sheridan, J. (2015). Effect of an intervention to break the gender bias habit: A cluster randomized, controlled trial. *Academic Medicine, 90*(2), 221–230. <https://doi.org/10.1097/ACM.0000000000000552>
- Cox, W. T. L., Abramson, L. Y., Devine, P. G., & Hollon, S. D. (2012). Stereotypes, prejudice, and depression: The integrated perspective. *Perspectives on Psychological Science, 7*(5), 427-449.
- Cox, W. T. L., & Devine, P. G., (*in press*). Avoiding Defensiveness and Overcoming Helplessness: Empowerment-Based Confrontation and the Prejudice Habit-Breaking Intervention. In M. Monteith & R. Mallet (Eds.), *Confrontation*.
- 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*(5), 800-814. <http://dx.doi.org/10.1037/0022-3514.81.5.800>
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*(1), 5–18.

- Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. L. (2012). Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *Journal of Experimental Social Psychology, 48*(6), 1267–1278.
- Devine, P. G., Forscher, P. S., Cox, W. T. L., Kaatz, A., Sheridan, J., & Carnes, M. (2017). A gender bias habit-breaking intervention led to increased hiring of female faculty in STEM departments. *Journal of Experimental Social Psychology, 73*, 211–215. <https://doi.org/10.1016/j.jesp.2017.07.002>.
- Devine, P. G., Monteith, M. J., Zuwerink, J. R., & Elliot, A. J. (1991). Prejudice with and without compunction. *Journal of Personality and Social Psychology, 60*(6), 817–830.
- Olson, M. A., & Fazio, R. H. (2006). Reducing automatically activated racial prejudice through implicit evaluative conditioning. *Personality and Social Psychology Bulletin, 32*(4), 421–433.
- Forscher, P. S. & Devine, P. G. (2014). Breaking the prejudice habit: Automaticity and control in the context of a long-term goal. In J. W. Sherman, B. Gawronski, & Y. Trope (Eds.) *Dual process theories of the social mind* (pp. 468-482). New York, NY: Guilford Press.
- Forscher, P. S. & Devine, P. G. (2015). Controlling implicit bias: Insights from a public health perspective. In Scott, R. A., & Kosslyn, S. M., (Eds.), *Emerging trends in the social and behavioral sciences*. Sage Publications.
- Forscher, P. S., Mitamura, C., Dix, E. L., Cox, W. T. L., & Devine, P. G. (2017). Breaking the prejudice habit: Mechanisms, timecourse, and longevity. *Journal of Experimental Social Psychology, 72*, 133-146. <https://doi.org/10.1016/j.jesp.2017.04.009>

Forscher, P. S.\*, Lai, C. K.\*, Axt, J. R., Ebersole, C. R., Herman, M., Devine, P. G., & Nosek, B.

A. (2019). A Meta-Analysis of Procedures to Change Implicit Measures. *Journal of Personality and Social Psychology*, *117*(3), 552-559

Greenwald, A. G., Banaji, M. R. & Nosek, B. A. (2015) Statistically small effects of the Implicit Association Test can have societally large effects. *Journal of Personality and Social Psychology*, *108*(4), 553–61.

Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, *97*(1), 17– 41. <http://dx.doi.org/10.1037/a0015575>

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*(6), 957.

Lai, C. K., Marini, M., Lehr, S. A., Cerruti, C., Shin, J.-E. L., Joy-Gaba, J. A., Ho, A. K., Teachman, B. A., Wojcik, S. P., Koleva, S. P., Frazier, R. S., Heiphetz, L., Chen, E. E., Turner, R. N., Haidt, J., Kesebir, S., Hawkins, C. B., Schaefer, H. S., Rubichi, S., Sartori, G., Dial, C. M., Sriram, N., Banaji, M. R., & Nosek, B. A. (2014). Reducing implicit racial preferences: I. A comparative investigation of 17 interventions. *Journal of Experimental Psychology: General*, *143*(4), 1765-1785.

<http://dx.doi.org/10.1037/a0036260>

Monteith, M. J. (1993). Self-regulation of prejudiced responses: Implications for progress in prejudice-reduction efforts. *Journal of Personality and Social Psychology*, *65*(3), 469–485.



- Oswald, F. L., Mitchell, G., Blanton, H., Jaccard, J., & Tetlock, P. E. (2015). Using the IAT to predict ethnic and racial discrimination: Small effect sizes of unknown societal significance. *Journal of Personality and Social Psychology, 108*(4), 562–571.
- Plant, E. A., & Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology, 75*(3), 811–832.
- Plant, E. A., & Devine, P. G. (2009). The active control of prejudice: Unpacking the intentions guiding control efforts. *Journal of Personality and Social Psychology, 96*(3), 640–652.
- Rokeach, M. (1973). A theory of cognitive and behavioral change. *The Nature of Human Values*. New York: Free Press
- Singal, J. (2017, December 05). *The Creators of the Implicit Association Test Should Get Their Story Straight*. Retrieved August 23, 2018, from <http://nymag.com/daily/intelligencer/2017/12/iat-behavior-problem.html>
- Singal, J. (2017, January 10). *Psychology's Favorite Tool for Measuring Racism Isn't Up to the Job*. Retrieved August 23, 2018, from <https://www.thecut.com/2017/01/psychologys-racism-measuring-tool-isnt-up-to-the-job.html>