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IMPLICIT BIAS IN DAILY PERCEPTIONS AND LEGAL JUDGMENTS

Professor Keith B. Maddox* & Professor Samuel R. Sommers**

In today’s demonstration, we explored the audience’s positive and negative associations with blacks and whites. The demonstration is an adaptation of the Implicit Association Test (www.projectimplicit.net), a computer-based task designed to explore mental connections between various concepts. Participants were presented with a list of concepts (stereotypically black and white names, pleasant and unpleasant concepts) in a column down the middle of a screen along with the response categories (black/white or Pleasant/Unpleasant) along the left and right sides. When reading a word, participants were asked to categorize it by slapping the knee (left or right) that corresponds to the category displayed on the left or right side of the screen. Their task was to do this as fast as possible, correcting any mistakes before going forward, and raising their hand after completing the last word in the list. We then noted the amount of time for a critical mass of participants (approximately seventy-five percent) to complete each trial.

In simple trials, either names or valenced words are displayed. In two critical trials, both names and valenced words were presented simultaneously in the middle of the screen. The trials differ based on the pairings of the response categories, and these trials tend to show a drastic difference in completion times. When participants were required to use the same hand to categorize black names and unpleasant words or white names and pleasant words, they tended to respond almost twice as quickly as when using the same hand to categorize black names and pleasant words or white names and unpleasant words. While there are individual differences among the respondents, the demonstration provided audible and visceral evidence of the trend. We then asked the audience to interrogate the methodological and cultural implications of the task, ultimately concluding that the test potentially reveals the fairly widespread implicit negative associations with blacks. With this working hypothesis, we next discussed the nature of racial bias and its implications for judgment in legal domains.

MADDOX: My name is Keith Maddox and I’m here with Sam Sommers. We’re both professors in the Psychology Department at Tufts University. We’re social psychologists broadly interested in issues having to do with stereotyping, prejudice, and discrimination. We’re thankful for the opportunity to come here today. We want to thank Ben and Anna for the invitation, as well as Abigail Stewart. Obviously it’s a somber occasion—it’s a somber topic. But again,
what we’re hoping to do is to provide a perspective on thinking about the extent to which bias can take place, and have an influence on the types of processes that range from identifying whether or not child abuse has been taking place, all the way through the criminal justice system.

We’re going to start out by talking a little bit about a perspective in social psychology that’s become a little bit more well-known in recent years: implicit bias.1 What it does is, we think, challenge our commonplace understandings of what bias is and what bias looks like. And then we’re going to spend some time talking a little bit about how these kinds of biases, either implicit or explicit, can have an influence on the kinds of judgments that you make in your day-to-day interactions with others.

Finally, what we’re going to do is try to explore this, in the spirit of today’s conversation, by thinking about some of the psychological evidence, the evidence that has to do with the extent to which these kinds of biases can manifest themselves in legal decision-making contexts.

So when we’re thinking about implicit bias, the first thing we want to talk about here is this idea that these biases that may be present in our environments are pervasive. They can affect a number of different kinds of characteristics (bases of social category membership) and, again, the extent to which we’ve absorbed (to some extent) the kinds of messages about these different groups. In terms of how they’re portrayed in the media; in terms of how they’re portrayed with respect to their representation in the individual contexts in which we work. They can have an influence, a subtle influence, in terms of the ways in which we might build associations in our minds, and can influence some of our behaviors.

The idea is also that these are unconscious, that they may not necessarily be consistent with the way you think about yourself. You may think about yourself as being a fairly egalitarian person and as someone who doesn’t have bias. And I think that’s inconsistent with what we think about bias as a kind of commonplace notion—that it’s something that people have that reflects an explicit prejudice, or an explicit sort of bias towards particular group members, and they use that animosity in terms of making judgments about others. But in fact, what this might suggest is that maybe there are elements

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1. See generally Jerry Kang et al., Implicit Bias in the Courtroom, 59 UCLA L. Rev. 1124 (2012) (distinguishing explicit, implicit, and structural bias and applying these concepts to criminal and employment cases in the courtroom); Marcia McNutt, Implicit Bias, 352 Science 1035 (2016) (examining the role of implicit bias in peer review); Katherine B. Spencer, Amanda K. Charboneau & Jack Glaser, Implicit Bias and Policing, 10 Soc. & Personality Psychol. Compass 50 (2016) (discussing implicit bias and proposed solutions in policing).
of bias that aren’t necessarily reflecting that explicit component, that there are more implicit biases that could potentially influence our judgments and behaviors, even if we otherwise think of ourselves as well-meaning individuals.

And the last part here is that biases can influence the kinds of judgments and behavior beyond just simple knee-slapping. So what I’m going to talk about is how these kinds of biases and stereotypes can have an influence on the types of judgments that we make every day. Then Sam will take over and start talking a little bit about how these judgments exert influence in legal decision-making contexts.

The idea here is that the stereotypes that we see—stereotypes that we learn while growing up in a particular culture—these stereotypes are, in a way, a byproduct of the ways in which people naturally process information and develop categories about people, in terms of the group memberships that they belong to, seeing associations, building those associations over time. That stereotyping is sort of the way people process information.

What’s important about this is that now we start to think about stereotyping and the use of stereotyping as not only an individual-based process. It’s not a process that’s based solely on someone who is prejudiced or someone who is biased or racist or sexist. That is possible, right? There are definitely individuals who have more extreme views with respect to these ideas compared to others. But what we want to talk about here is the pervasiveness of it, the idea that there might be otherwise well-meaning individuals who can exhibit these kinds of stereotypes. And in that sense, it helps to explain a little bit more about the pervasiveness of the kinds of biases that we see, and the effects of those biases in terms of the outcomes of various group memberships.

Stereotypes are like lenses. So if you’re wondering why I’m wearing my sunglasses, it’s that I wanted to show you that a stereotype is almost like a lens that you’re not aware that you’re wearing, a lens that filters how you see the world. It filters what you remember about the world, it filters the kinds of attributions that you make about others’ behavior. What we’re hoping to do today is to give you some information about the existence of this lens and the opportunity to find the context in which it might be biasing judgments in ways that you think are not necessarily appropriate for the work that you do, and to use that information to try to lift the lenses again and to try to see the world in a more veridical way.

So in general, and this is sort of reflected in some of the work that was talked about earlier this morning, when you think about the context under which you might have some association about
what you might be looking at, a hypothesis about what is child abuse, a hypothesis about the kind of person that might be more likely to engage in these kinds of activities, these hypotheses can guide your judgments in certain ways that are going to snowball into making a judgment that may be biased. It may not necessarily reflect what really happened.

So in this sense, you can start to think about the different contexts under which using stereotypes is more likely when behavior is ambiguous, when it’s not exactly clear what’s going on. Whenever judgments are somewhat subjective, or it takes someone’s opinion to make a decision, when you’re busy or distracted, if you’re overloaded with a number of cases or workload or distracted by other pieces of information, stereotype use is more likely, and then also in situations when you might feel threatened or insecure. All these are conditions that exist in our day-to-day lives under varying different conditions. We might experience the opportunities to exhibit bias (apart from the fact that we may be well-meaning and trying to do our work in ways that are going to be more reflective of being egalitarian) and because these kinds of biases are often unconscious, they can filter into the ways we make judgments, and ultimately then lead to biased outcomes. Again, it has nothing to do with our intentions, but have a lot more to do with the ways in which we process information.

We’re hoping to give you a little bit more nuanced view on the ways bias might play a role. Hopefully that demonstration [described in the abstract] might have revealed this to some extent, even if it’s not necessarily you—with respect to your performance [on the word association and knee slapping demonstration]. Looking at the performance of the room and understanding the generality of these kinds of effects could give you a little bit broader database of knowledge to understand the ways in which they might have influences in the various domains in which you’re working.

So now I want to transition and give Sam the mic. He’s going to talk to us a little bit about the applications of these kinds of ideas with respect to legal decision-making contexts.

SOMMERS: Let me start with the basic proposition that follows up on what Keith has been discussing here, namely that race, ethnicity, and other social category information color the way we see the world. More generally, just taking a step back from even the demographics, it is a well-demonstrated, oft-cited conclusion in the behavioral sciences that expectation colors how we see the world
around us. If I were teaching my undergraduates right now in an intro psych course, I would use a variety of methods of doing that. I play them song lyrics. I then play the song lyrics backwards. They listen; can they hear anything? No. When I then show them what the supposedly backwards satanic song lyrics are, and I play it again, they hear them. When you’re looking for it, you hear it, you see it. You heard examples earlier this morning about how when you have an expectation, whether in medical diagnosis or as an investigator in a police proceeding, that something may be the case, that can change the way that you actually perceive the facts on the ground.

This is a well-demonstrated conclusion in the behavioral sciences known as confirmation bias—this idea that what we expect to see often colors what we actually see. That plays itself out quite a bit when it comes to race, ethnicity, other social category information, along the lines of the demonstration that we started here with this morning. It’s not just for race and ethnicity. We could have done a variety of different implicit association tests. And if you were someone who didn’t have trouble and wasn’t slower pairing unpleasant with white than pairing unpleasant with black, if you gave us enough time and enough different tests, and enough PowerPoint


3. See Cynthia J. Najdowski, Stereotype Threat in Criminal Interrogations: Why Innocent Black Suspects Are at Risk for Confessing Falsely, 17 PSYCHOL., PUB. POL’Y, & L. 562, 575 (2011) (defining “confirmation bias” as “assuming a hypothesis is true, searching for evidence that supports the hypothesis, and asking questions that are designed to bolster the hypothesis”).


5. See, e.g., Najdowski, supra note 3, at 575 (suggesting that if investigators are more likely to misclassify black and white suspects as guilty because of racial differences in guilt-presumptive nonverbal behavior that they may be more likely to employ coercive questioning tactics with black suspects that result in coerced confessions by innocent black suspects); Cecilia L. Ridders, Framed by Gender 161–62 (2011) (describing how confirmation bias drives gender stereotypes); Linda van den Bergh et al., The Implicit Prejudiced Attitudes of Teachers: Relations to Teacher Expectations and the Ethnic Achievement Gap, 47 AM. EDUC. RES. J. 497, 510–17 (2010) (finding that implicit biases resulted in different expectations of student achievement based on their diverse ethnic backgrounds).
slides and enough of your slapping energy, we would find something else: sexual orientation, political affiliation, body type, socioeconomic status, or what have you.

The legal domain is not immune from this. There is nothing magical that happens when you become a police officer, a juror, a judge, or an attorney that exempts you from these processes. So implicit bias colors the way we see the world around us as everyday human beings and, believe it or not, the legal system is populated by everyday human beings. So these processes are at play as well. And we know from a variety of research studies that have demonstrated over the years, again, from jurors and civilian eye witnesses, to police investigators, to judges, to attorneys to college professors, that these factors influence the way we see the world.6

There’s a famous study often talked about in social psychology circles by Allport and Postman in 1947,7 and it has a bit of an apocryphal urban legend aspect to it now as well. What was done in this study was, to boil it down to its essence, individuals saw this drawing. They saw a drawing of a subway car, a trolley car, and two individuals having a conversation of some sort, a darker-skinned individual in a hat standing with empty hands and a lighter-skinned individual holding a switchblade.8 The way the story is often told is that people who saw this drawing and were later tested for their eyewitness memory for what they had observed erroneously remembered the switchblade in the hand of the darker-skinned individual. That’s not quite what really happened in the actual study.

What happened in the actual study is it was more a study in investigation of rumor transmission. It was basically a version of the kid’s game “telephone,” where one person says to another person who says to another person who says to another person what happened. But in close to half, or by some accounting over half of the instances, at least at some point in that chain of rumor transmission, the switchblade did magically move from the lighter-skinned individual to the darker-skinned individual here.9 This is regardless of whether it’s the true data or the more apocryphal version of the data that are talked about, it remains a sort of seminal, oft-cited

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6. See, e.g., Hill, Memon & McGeorge, supra note 4, at 362 (finding that expectations of guilt resulted in more guilt-presumptive questions among interviewers of students suspected of cheating); see also Powell, Hughes-Scholes & Sharman, supra note 4 (finding certain interview techniques can reduce confirmation bias); van den Bergh et al., supra note 5, at 510–17 (finding that implicit biases resulted in different expectations of student achievement based on their diverse ethnic backgrounds).
8. Id. at 99–115.
9. Id.
example of the ways in which our expectations can color what we see; in this case, in an eyewitness-type scenario which certainly has application for the legal system.

What I would like to do in the remainder of our time is talk about some more current research that demonstrates the points that Keith made earlier here that, yes, there’s a general influence of these kinds of expectations on the way we see the world. It plays itself out in an important and troubling ways in the legal domain as well.

We’re going to start with the research of Jennifer Eberhardt. Jennifer Eberhardt is a social psychologist at Stanford. And what Eberhardt—a recent MacArthur grant awardee—and her colleagues did was conduct a series of studies looking at what they refer to as the bi-directional relationship between thoughts about race and thoughts about crime: bi-directional in that their argument is that when thoughts about crime are active, so too are most people’s thoughts about certain racial groups.10 And, for that matter, when people’s thoughts about certain racial groups, typically African-American and Latino in American society today, are activated, so too are thoughts about crime. So you’re going to get a little bit of a research method talk here. But I think it illustrates these conclusions nicely.

There are multiple studies in Eberhardt’s and colleagues’ paper in 2004.11 In the first one—and this actually speaks to a question that was asked earlier—about how pervasive are these associations, do you see them as much among non-white individuals? That’s something for us to discuss here during questions and the roundtable discussion.

The first study was conducted with white college students, Stanford and Berkeley students. The independent variable in this study, in other words, the variable manipulated by the researchers, was the subliminal presentation of a face.12 So if you’re a participant in this study, what happens is you see something flash on the screen in front of you, and you can see that it’s something, but you’re not quite sure exactly what it is.13 And for half of the individuals, this presented stimulus that’s too quick for your conscious awareness to identify what it is, is a photograph of a white male.14 And for half of the individuals in the study, again, determined at random, what

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11. Id.
12. Id. at 878–80.
13. Id.
14. Id.
they see is a photograph of a black male. So subliminally, it’s photographs of a white man or a black man appearing in front of you in your visual field at the beginning of this study. What’s of interest to the researcher is their dependent variable, their outcome measure, which is the ability to recognize degraded objects, or faintly visible images.

So these images that are pixelated come into focus, come into view very slowly. Your job as a participant is to push the button and say, “I know what that is. That’s a sofa.” “I know what that is, that’s the moon.” Some of the images in question in this study were related to crime—weapons, other images relevant to either violence or perhaps handcuffs. What Eberhardt and her colleagues found is when individuals were primed with a white face, they are quicker in identifying control objects that have nothing to do with crime. They’re actually slower to identify crime-relevant objects. For the other group, it’s the opposite pattern of results. The people subliminally primed with the photograph of a black male were able to identify crime-related objects more quickly. The conclusion in plainer English: activating thoughts related to the category black activates thoughts related to crime. When, even subliminally, an image of a black male is presented to the participants in this study, they are primed, they are ready, they are more likely to see and quickly recognize an image that’s related to crime. The thought, that link between race and crime, is a strong one for participants.

Their second study used white male students as subjects, this time from Stanford. The researchers switch the order of their stimuli in this study, essentially. Their independent variable, what they manipulate, is images, again shown subliminally, to their participants, some of which are related to crime—gun, revolver, handcuff, prison bars—and for other individuals, images that have nothing to do with crime whatsoever. So now the subliminal presentation is about crime.

They want to see what happens when you activate people’s thoughts about crime. Their dependent measure is something

15. Id.
16. Id.
17. Id. at 880.
18. Id.
19. Id.
20. Id.
21. Id. at 881–85.
22. Id.
23. Id.
24. See id.
that’s going to sound difficult to understand: a dot-probe task response time. If you’re a participant in this study, you stare at a screen and you’re told to look at a fixation point in the middle of the screen. And then two faces pop up, not subliminally. There are two faces that are there and you just get to look. There’s no explicit instruction as to what you’re supposed to be doing in this study.

This is a paradigm that’s sometimes used with children too. Or, for that matter, you could use this paradigm with animals to try to capture what they are looking at, where is their visual attention focused? We know where their visual attention is focused because eventually these photos disappear, and their true job is to identify which side of the screen a cross is on. So you have the photos, they disappear, then the subject identifies where the cross mark is: “Oh, it’s over there.” What you’re able to find is, well, if individuals are quicker to identify this cross when it’s behind, in this instance, where the black male’s face was, it suggests that that’s where they were looking, right? They were already looking at the left side of the visual field, so therefore this cross is easier to find. If they’re quicker to identify the cross when it’s on the right side, behind the white face, well, they must have been looking at the white face preferentially.

What did Eberhardt and colleagues find?25 Let’s get straight to the conclusion: activating people’s thoughts related to crime leads to more attention to black faces. When the prime before the study was relevant to crime, when people were shown subliminal images related to crime, these white respondents were looking at the black faces later.26 Two faces shown to them? More likely to look at the black faces.27 When the image is not related to crime, if anything the other way around.28 Again, activating thoughts related to crime leads participants in these studies to attend more to black faces.29

Now, these conclusions, this idea that there is some potential link between our thoughts about crime and our thoughts about race is not limited to one researcher, is not limited to one set of studies, is not limited to these studies that look at subliminal presentation of information. I could have chosen a variety of different examples to give you here in the bullet points you’re about to see. I’m just going to give you a few recent, and I think persuasive and important, and in most instances sobering findings related to implicit bias and law.

25. Id. at 883.
26. Id. at 882–83.
27. Id. at 882.
28. Id. at 882.
29. Id.
A recent meta-analysis, published just this year in the Journal of Experimental Social Psychology, aggregates the data from a variety of police simulation studies, studies in which individuals, civilians, and police officers are shown a series of scenes. You see an individual, usually a male, sometimes he’s white, sometimes he’s African American, holding an object in his hand, a clicker, a wallet, something innocuous—a phone—or a weapon. Your job in these studies is to identify, is this someone who’s dangerous, do I need to push the shoot button or the not shoot button? There is a racial bias observed across this body of literature that suggests the shooter bias, such that people (police officers included, though the data are more mixed with police officers) are quicker to identify an armed individual who is black, quicker to identify an unarmed individual as such when he is white, more likely to make mistakes with the unarmed black suspect, more likely to make mistakes with the armed white suspect, and so forth.

In a recent paper I published with Satia Marotta, a graduate student at Tufts, we summarized research on a variety of outcomes in the legal domain, one of them having to do with charging decisions, plea deals, and other trial outcomes. We found that across different research programs, when it comes to decisions to charge, whether it comes to a defense attorney making a decision as to what is a reasonable plea deal to take for the client, there’s differential performance based on whether we’re talking about a white versus African American defendant. For example, with the plea bargain data, defense attorneys are likely to report being willing to consider less friendly, less lenient plea deals, less beneficial plea deals for their African American versus white clients. That could reflect some version of implicit bias and prejudice on the part of the attorneys; it could reflect a realistic assessment of the system, such that my defendant is not going to get great treatment from a jury or a

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31. See id. at 120, 126.
32. Id. at 120–21.
33. Id. at 128.
34. Id.
36. Id. at 106.
judge here. For this kind of defendant, that might not be a bad deal.³⁷

Americans in public opinion surveys express greater support for trying violent juveniles as adults when the example provided in the survey is a case involving a black offender—research that Aneeta Rattan at Stanford has conducted.³⁸ Again, just asking the public about, do you think it’s okay, do you support charging juvenile offenders as adults when it’s a violent crime, when the example case that’s presented to illustrate the topic involves a serial black offender, a youthful offender, people are significantly more in favor of charging juveniles as adults.³⁹

This extends beyond just the legal domain. We’re talking today about the healthcare domain. There are data in that domain, there are data in our school system. A recent study by Jason Okonofua and Jennifer Eberhardt, again at Stanford, on school discipline, suggests that teachers are less likely to give a third chance to black versus white students when school misbehavior scenarios are presented to them. Kids tend to get a first chance, a second chance, but it’s two strikes you’re out when you’re an African American student as opposed to the third strike that a white student might get.⁴⁰

So where does this leave us? What are the thoughts we would like to leave you with as we segue into the rest of today’s discussion? We were asked to provide a little bit of background on what the research suggests with regard to implicit bias, how these processes play out, how they influence our perceptions of one another, and how they potentially influence us in legal domains.

There is no silver bullet solution to these problems that we are prepared to offer you here today. We would be much more famous and important individuals if we had that. What I will say, what I will leave you with is some of the categories of potential strategies that we discuss in that paper, the Sommers and Marotta paper that I mentioned earlier.⁴¹ The categories of solutions or interventions you often hear people talk about would include things such as better empirical documentation of disparities. So, for example, in race and policing, there is a movement, and some of this spearheaded

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³⁷. Id.
³⁹. Id.
⁴¹. See generally Sommers & Marotta, supra note 35, at 108–09 (discussing racial bias and disparity in legal outcomes, including policing, charging decisions, and criminal trial outcomes).
by an Interuniversity Consortium of Researchers and Law Enforce-
ment officials spearheaded by Phil Goff at UCLA to collect better
data on stops, on use of force, and on police outcomes by race.\textsuperscript{42}

Even police departments have of late become more on board
with the idea that better data here will only help everyone to be
able to say here’s what is going on, here’s what’s not going on.\textsuperscript{43} But
often having even the data is very difficult. We’ve given talks to uni-
versity police departments and asked, said things that, “Well, we’ve
had students say they feel like students of color are more likely to
be stopped and asked for ID or stuff.” And they say, “Oh, we assure
you that doesn’t happen on campus.” And we said, “Do we have the
data for that?” “Oh, we don’t think so.” So having the data for that
makes such a claim, to us, and I think to many people, more
compelling.

Bias training is something that’s discussed, and now there’s also
research in the published literature that suggests that not all bias
trainings are created equally, and they’re not always as effective as
they are intended to be.\textsuperscript{44} But certainly, when you hear what Keith
is talking about at the beginning, implicit bias, these unconscious
associations, one strategy or one potential remedy is to make the
implicit associations explicit—to talk about them. You heard very
early on in the introductory remarks today that these are difficult
discussions, difficult conversations we’re having, but that it’s often
important to have those difficult conversations, to at least have on
the table the idea that we are, even despite our best efforts and
intentions, biased. That can have some effects in the long run.

You hear a lot of conversation about increasing institutional di-
versity, and certainly that’s a positive step in many domains. Does it
solve the problems? No. Having a more diverse police force is cer-
tainly great. It helps build perceived legitimacy if nothing else.
There are data that suggest that police officers of a variety of back-
grounds exhibit some of the same tendencies we’ve talked about

\textsuperscript{42} See generally Racial Bias in Policing, CONSORTIUM FOR POLICE LEADERSHIP IN EQUITY
(CPLE), https://www.russellsage.org/research/working-groups/rsf-working-group-racial-

\textsuperscript{43} See, e.g., Robert Rogers, Richmond Police Chief a Prominent Participant in Protest Against
(citing Richmond deputy police chief saying that “[w]e get the conversation about use of
force . . . . This is an opportunity for all police departments, including ours, to look inward
and examine our approaches and get better”).

\textsuperscript{44} See Robert J. Smith, Reducing Racially Disparate Policing Outcomes: Is Implicit Bias Training
the Answer?, 57 U. HAW. L. REV. 295, 302–06 (2015) (discussing the promise and
limitations of implicit racial bias training).
Institutional diversity is great, but just as it is in a university, when it comes to legal institutions, it is not a cure-all either.

In short, the final point we’ll make and want to leave you with is that biased perception, judgment, and outcome are present in the legal arena as in others. I have had conversations over the years now, having served as an expert witness, been in conversations with attorneys and judges and others in which sometimes the sentiment is expressed that these studies are very interesting and compelling, but people slapping legs, people judging fictitious individuals or pushing keys on a computer screen, that’s not what goes on in a court of law. What goes on in a court of law, what goes on in a police interrogation, that’s high stakes. It’s as high stakes as it gets, and people are on their best behavior. But their being on their best behavior does not exempt any of us from having these conversations or from pondering these processes. We know all too well that disparities like this continue to exist.

So with that, I will say thank you for your attention and participation.

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45. See Leslie Ashburn-Nardo, Megan L. Knowles & Margo J. Monteith, Black Americans’ Implicit Racial Associations and their Implications for Intergroup Judgment, 21 SOC. COGNITION 61, 73–74, 79 (2003) (finding that black participants exhibited a significant preference for whites in identifying preferred partners for intellectually challenging tasks); Brian A. Nosek, Mahzarin R. Banaji & Anthony G. Greenwald, Harvesting Implicit Group Attitudes and Beliefs from a Demonstration Web Site, 6 GROUP DYNAMICS: THEORY, RES., & PRACT. 101, 105–06 (2002) (finding that among tens of thousands of people who completed the black-white Implicit Association Test, white participants overwhelmingly exhibited more pro-white bias compared to black participants who exhibited far less pro-black bias).