Title: ***Implicit Bias in the Courtroom: Don't Ignore It and Hope for the Best***

Date: Thursday September 3, 2015

Time: 1:45 – 3:00pm

Moderator:

Name: Elizabeth Krupa
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Panelists:

Name: Judge Celeste Villareal
Title: Associate Judge
Organization: City of Austin
City, State: Austin, TX

Name: Karen Lockwood
Title: Executive Director
Organization: NITA
City, State: Boulder, CO
Tele. No.: 303.953.6801
Email address: klockwood@nita.org

Name: John Salas
Title Attorney at Law
Employer Kim Vaughan Lerner LLP
City, State: Ft. Lauderdale, FL

Back-up panelists:

Name: Francisco J. Duenas
Title: Director- Diversity, Inclusion and Proyecto Igualdad
Employer Lambda Legal:
Email: fduenas@lambdalegal.org

Name: Robert Vaughan
Title Partner
Employer Kim Vaughan Lerner LLP
City, State: Ft. Lauderdale, FL
Email: rvaughan@kvllaw.com

Tab 1 – Biographies or CVs

John P Salas focuses his practice on commercial litigation matters. Prior to becoming a lawyer, John spent nearly a decade in the business world, where he generated millions of dollars in sales in addition to managing a sales department and negotiating distribution and licensing agreements. John's prior business experience provides practical insight and experience with which to assist his clients in resolving their business disputes. John has represented both domestic and international corporate clients in complex business litigation, construction litigation, and surety litigation. He also has represented the major cruise lines in employment, personal injury, products liability, and commercial disputes.

John is fluent in Spanish and has a working knowledge of Portuguese and French.

Professional & Community Activities

•Member, American Bar Association
•Member, Cuban American Bar Association
•Volunteer, Put Something Back Pro Bono Project, Legal Lines
•Member, Chapman Partnership for the Homeless – Next Gen

Education

•University of Florida, B.S., 1998
•Florida State University College of Law, J.D., 2008
- Articles and Notes Editor, Journal of Land Use and Environmental Law
- Vice-President, Spanish-American Law Student Association (SALSA)
- Professor's Award Trial Practice I and II
- Real Estate Law Society

Bar Admissions

•All Florida Courts
•U.S. District Court, Southern District of Florida

Professional Background

•Taylor Vega, P.A., Associate
- Represented developers, contractors and design professionals in various construction-related litigation matters

•Mase Lara Eversole, P.A., Associate
- Represented cruise lines in maritime and admiralty litigation and arbitration

•MasTec, Inc., Law Clerk

Elizabeth Espinosa Krupa has over 20 years of experience as a trial lawyer. She has argued before courts at the state and federal levels and has tried numerous criminal and civil cases before both juries and administrative judges. She graduated from the University of Denver, Sturm College of Law in 1994, served a judicial clerkship, and subsequently worked for the Colorado State Public Defender Office providing criminal defense for indigent clients in Denver County, Juvenile and Drug Court, Steamboat Springs, Grand Junction, Eagle and Leadville, Colorado.

Ms. Krupa went on to work for the Federal Defender for the District of Colorado, and then as a Trial Attorney for the Denver Regional Office of the United States Securities and Exchange Commission where she conducted trials and administrative proceedings throughout the United States. She most recently served as Assistant Regulation Counsel for the Colorado Supreme Court Office of Attorney Regulation Counsel.

In addition to maintaining a private practice, Ms. Krupa currently serves as a faculty member for the National Institute for Trial Advocacy. She has been teaching NITA since 2009 in regional, public service and custom programs and served as Program Director for the NITA/NOBC Advanced Trial Advocates Training. She has also been very active in bar associations serving as Vice President of Sections and Committees for the Hispanic National Bar Association and is the Immediate Past President of the Colorado Hispanic Bar Association.

Ms. Krupa was also honored to receive an appointment to serve on the Colorado State Supreme Court Unauthorized Practice of Law Committee and Western Regional Advisory Board for the United States Commission on Civil Rights, and was recently appointed to the Denver Municipal Public Defender Commission by Denver County Court Chief Judge John Marcucci. She is a frequent lecturer at CLE programs, and has coached and taught trial advocacy for the American Association for Justice mock trial team at the University of Denver, Sturm College of Law.

Professional Associations and Board Appointments

- Colorado Hispanic Bar Association: President 2014, President-Elect 2013, Chair of Charitable Contributions Committee
- National Hispanic Bar Association: Vice President of Sections and Committees 2014-2105 Executive Board; Affiliate Representative 2014, Moot Court Judge
- Colorado Women's Bar Association
- Colorado Bar Association
- Colorado Advisory Committee, United States Commission on Civil Rights
- Colorado Supreme Court Chief Justice's Commission on Professional Development
- American Bar Association: Editorial Board, Professional Conduct Manual 2011-present

Karen M. Lockwood is the Executive Director of NITA–the National Institute for Trial Advocacy. She equally serves as ED of The NITA Foundation.

Coming to NITA's leadership from 30 years as a commercial trial lawyer, Ms. Lockwood carries an AV-Preeminent rating from Martindale. She was a partner in DC at Howrey LLP, and at Collier Shannon Rill & Scott, LLP. Her practice focused on jury and non-jury trials and appeals, in diverse subjects such as construction litigation, a large hotel fire, antitrust mergers, copyrights and trademarks, patents, joint ventures, and business lawyer counseling. In 2009, Ms. Lockwood founded The Lockwood Group to create new analyses of gender inequities in the professions, and to advise on changing structural and decision making customs in order to end the failure of the profession's aspirations for diversity. She continued her work as an arbitral judge with the AAA Panel of Neutrals before coming to NITA. Alongside all of this, she has served as a NITA faculty member for many years, including as Program Director for the DC Intensive Trial Skills program (at Georgetown), in custom NITA programs for firms and agencies, and in public service NITA programs for groups such as Equal Justice Works.

Ms. Lockwood has served as an ABA Delegate for the DC Bar, as Liaison with the ABA Commission on Women in the Profession, and on the Editorial Board of Perspectives Magazine. As President of the Women's Bar Association of DC, she created and led a groundbreaking initiative in early 2006 that drew men and women law leaders together over issues and action plans to promote the advancement of women lawyers in practice. The initiative yielded a focused and popular monograph for advancing women in the law, and helped to kick-start the nationwide focus on how the profession must change to keep 50% of its talent--that vested in women law graduates. She worked with the Project on Attorney Retention, and lectured at the inaugural UT Center For Women's Boot Camp. A lifelong fan of the American University Washington College of Law, Ms. Lockwood is a member of its Dean's Advisory Council, and past AUWCL Alumni Chair. She serves as Trustee of The College of Wooster, which she describes as "one of the most effective and cost effective liberal arts institution in the nation." Winner of the outstanding graduate awards at The College of Wooster, and at American University's Washington College of Law, Karen has received professional awards for her leadership and her voice on women in the law, and is a frequent speaker at corporate, industry, and bar conferences.

Celeste I. Villarreal is a part-time Associate Judge for the City of Austin. Prior to taking the bench in 2010, Ms. Villarreal represented clients and litigated family law, criminal defense, wills & probate cases. She also has extensive governmental relations and communication experience in Austin and Washington, D.C.

A former staffer at the Texas Capitol, Ms. Villarreal previously served as General Counsel and Public Information Officer for Texas State Senator Judith Zaffirini, and Policy Analyst and Press Advisor to Texas State Senator Rodney Ellis and Texas House Representative Al Edwards. She has also worked in Washington D.C for the Mexican American Legal Defense and Educational Fund (MALDEF) and the Association for the Advancement of Mexican Americans (AAMA) and the governmental affairs division of Greenberg Traurig, LLP in Austin, Texas.

A “second career attorney," she is also a 25 year veteran of the broadcast industry, having worked at Fox News Corporation, Univision, Katz Media Corporation, Paramount Stations Group and Times Mirror Corporation.

Ms. Villarreal’s media career includes employment as an audio/sound engineer, lighting and electrical engineer, master control director and operator, camera and computer graphics technician, and editor for the news and production departments. In addition to expertise in technical aspects of the broadcast industry, Ms. Villarreal also enjoyed success in business negotiations, contracting, and sales, culminating in national rep firm and television station management.

Ms. Villarreal received her Juris Doctorate from Texas Tech University School of Law in 2005, and a Bachelor of Science in Radio Television Film from the University of Texas at Austin in 1982.

Ms. Villarreal has published legal articles, served as editor for legal publications, currently speaks at CLE programs and community organizations, and has received numerous awards and recognitions.

In addition to her work achievements, Ms. Villarreal serves on several non-profit boards. In October of 2014 she was appointed to serve as a Commissioner to the HNBA Latina Commission. She is Past President of the Mexican-American Bar Association of Texas (MABA-TX), Former Chair and board member of the Municipal Judges Section of the State Bar of Texas and Former Treasurer of the Hispanic Bar Association of Austin (HBAA), Former Vice President of External Affairs for the Hispanic National Bar Association (HNBA), and a State Bar of Texas Foundation Fellow.

Potential Back-up Panelists:

FRANCISCO J. DUEÑAS

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KNOWLEDGE BASE & SKILLS PROFILE

Educational Outreach Campaigns- Create and present Latino LGBT (Legal) workshops and CLEs for national conferences including: Hispanic National Bar Association (HNBA), Farmworker Justice, National Immigration Law Center, National Council of La Raza, amongst others.

Community Advocacy- Experience in grassroots community organizing and policy advocacy. Organized successful campaigns for renters' rights, school traffic safety, voter turnout and gay rights.

Coalition Building- Engage stakeholders/balance competing interests: Founded coalition between Latino, immigrant and gay organizations; organized first Latino Family Pride Day in East Los Angeles- a Latino LGBT community resource fair and pride celebration.

Popular Education Models- High school curriculum against homophobia as part of youth organizing effort

Project Launch & Management – "Get Out the Vote" efforts with substantial budgets, 5% voter participation increases and political wins/ Founded Latino Alumni Association for Pomona College

EMPLOYMENT EXPERIENCE

Lambda Legal **January 2004- September 2006 (OA) October 2006- June 2014 (PI)**

Outreach Associate (OA), Proyecto Igualdad Coordinator (PI), Diversity& Inclusion, Director (DI) **June 2014- Present (DI)**

- Helped start Hispanic National Bar Association LGBT Section
- Orchestrated Lambda Legal's policy position in favor of Comprehensive Immigration Reform
- Oversee public education & promotional materials in Spanish, including spokesperson duties
- Supervise and mentor student interns from Manual Arts High School and UCLA
- Participate in Lambda Legal's Diversity Committee and our Multicultural Programming Committee

ACORN Housing Los Angeles **January 2003 – December 2003**

Housing Counselor- First-time Homebuyer Program

- Streamlined homebuyer education & counseling services, helped dozens achieve homeownership
- Increased visibility of program through community presentations and networking strategies

ACORN Political Action Committee/ CA Democratic Party **June 2002- November 2002**

Statewide APAC Political Organizer/ Field Campaign Lead - Oakland

- Ran 2002 CA Dem Oakland field campaign office with over 300 paid staff and volunteers in final days
- Produced organizational voting materials, systems and campaign timeline used statewide

ACORN Los Angeles **May 1999- December 1999 (CO)**

(Association of Community Organizations for Reform Now) **January 2001- April 2001 (PO)**

Community Organizer (CO) & Political Organizer (PO) –

- Recruited over 80 new members in 6 month's time: secured stop sign for elementary school via campaign

- Established members' local Political Action Committee and Volunteer Precinct Captain Program

LA Gay & Lesbian Center- Legal Services Department **December 1999- December 2000**

Safe Haven Project- an AmeriCorps VISTA project

- Mobilized queer youth and allies to prevent anti-gay bias in 3 urban LAUSD high schools
- Collectively developed and implemented culturally-sensitive educational presentations and materials

Robert C. L. Vaughan focuses his practice on commercial and international litigation and alternative dispute resolution. He represents clients in US state and federal courts, and in matters pending before Caribbean courts. Mr. Vaughan is rated AV by Martindale-Hubbell - its highest rating for professional excellence. He has successfully tried civil and criminal cases, both bench and jury, in state and federal court in Florida. He has handled successful multimillion-dollar jury trials, class action litigation and multidistrict litigation, and represented numerous domestic and international clients through verdict and pre-trial dispositive hearings.

As lead trial counsel, Mr. Vaughan has successfully obtained preliminary injunctive relief for clients engaged in non-compete and trade secret litigation and shareholder disputes. He also has represented clients in trial and appellate courts in a wide variety of areas including insurance defense, shareholder litigation, business torts, "ponzi" fraud, attorneys' fees litigation, and general contract disputes. Mr. Vaughan has represented clients in many industries including insurance, hospitality, agriculture, manufacturing, investments, information technology, aviation, and finance.

Honors & Recognition

- AV Preeminent, Martindale Hubbell
- Chambers USA, Litigation: General Commercial, Florida, 2014
- Super Lawyers Business Edition (National), Litigation, 2012
- Florida Super Lawyers, Business Litigation, 2011, 2012, 2013, 2014
- South Florida Legal Guide, Top Lawyer, 2014, 2015
- ICABA, Top 100 Blacks in Healthcare and Law (inaugural directory), 2009

- Florida Trend, Florida Legal Elite, 2007-2010, 2012, 2014
- South Florida Legal Guide, Top Up and Comer, 2005-2012
- Revistas Abogados, Abogados Destacados del Sur de la Florida, 2013
- South Florida Business Journal, Up & Comer Finalist, 2006
- Florida Trend, Florida Top Up & Comer, 2006

The Florida Bar & Community Service

- Member, National Bar Association
- Member, International Bar Association, Business Law Section
- Former Member, Past Chair, The Florida Bar Grievance Committee
- Former Board Member, Dade County Bar Association
- Board Member, NYU Law Black, Latino, Asian Pacific American Law Alumni
- Past President, Caribbean Bar Association
- Former Board Member, Hands on Miami, 2007 recipient of the prestigious Presidential Volunteer Service Award for his service to Hands on Miami
- Member, Dean's Advisory Board, FIU School of Law
- Member, Florida Supreme Court Committee on Fairness & Diversity

Education

- New York University, J.D., 1997
- UWI Norman Manley School of Law – Legal Education Certificate, 1999
- State University of New York - Stony Brook, B.A., *cum laude*, 1994
- University of the West Indies, Mona Campus – (transferred), 1991-1992

Bar Admissions

•All Florida Courts

•U.S. Court of Appeals, Eleventh Circuit

•U.S. District Court, Middle District of Florida

•U.S. District Court, Northern District of Florida

•U.S. District Court, Southern District of Florida

•The Supreme Court of Jamaica, West Indies

Professional Background

•Kim Vaughan Lerner LLP, Fort Lauderdale, Florida, 2010–present, Partner

•Squire Sanders & Dempsey LLP, Miami, Florida, 2005-2010, Partner

•Steel Hector & Davis LLP, Miami, Florida, 1997-2005, Partner

Teaching Experience

•NITA Trial Skills Programs

- *National Session (Louisville, CO)*
- *Florida Regional Trial Skills Program*

•NITA Teacher Training Programs

- *Advocacy Teacher Training* (San Francisco, CA, and Louisville, CO)

•In House Training Programs

- *Allstate Trial Skills Program*
- *State Farm Trial Skills Program*

•International Teaching Experience

- *Advocacy Teacher Training,* Pristina, Kosovo (U.S. Dept. of Justice), January 2010
- *Advocacy Teacher Training*, Pristina, Kosovo (U.S. Dept. of Justice, Consultant), October, 2010

Tab 2 – Course Materials (articles, publications, other materials)

In this fast-paced exchange, our esteemed panelists will examine the nature of implicit bias arising in trial, and display ways to disarm its insidious effect. The goal is to counteract implicit bias stemming from ideas about race, ethnicity, national origin, gender, membership in the LGBT community, and other person-based stereotypes.

To achieve jury verdicts and judicial rulings, our advocacy process converges three streams of trial presentations -- evidence, counsels' reasoning, and legal principles. But what about the fourth stream – "the fourth estate" if you will – of unfair Implicit Bias? How can advocates recognize it, and act to reduce its unfair impact on the result?

First, you will consider the nature of implicit bias and its inevitable presence in human interaction. Summaries of neuroscience investigations will anchor this introduction.

Second, the panel will share how implicit bias may be discerned in the trial process. Whether bias is in play through lawyer, judge, witness, fact scenario, argument, or attitude, the lawyer can be ever more discerning of its potential. Focus will include how bias interferes with our justice system's assumptions, judicial perception, and jury take-aways.

Third, using NITA-style mini-demonstrations, the panel will sample techniques to interrupt implicit bias, rectify perceptions, and defuse the human propensity to judge based on unfair bias.

With chances to stretch your thinking, ask probing questions, and watch the action, you should enjoy this important topic.

Following is a listing of some of the research and other resources that help the trial lawyer understand and recognize implicit bias.

Implicit Assumptions Self-Test: https://implicit.harvard.edu/implicit/demo. Experiment (in confidence) on any of several instruments that will challenge and reveal your own implicit biases.

The IAT measures the strength of associations between concepts (e.g., black people, gay people) and evaluations (e.g., good, bad) or stereotypes (e.g., athletic, clumsy). The main idea is that making a response is easier when closely related items share the same response key.

When doing an IAT you are asked to quickly sort words into that are on the left and right hand side of the computer screen by pressing the "e" key if the word belongs to the category on the left and the "i" key if the word belongs to the category on the right. The IAT has five main parts.

In the first part of the IAT you sort words relating to the concepts (e.g., fat people, thin people) into categories. So if the category "Fat People" was on the left, and a picture of a heavy person appeared on the screen, you would press the "e" key.

In the second part of the IAT you sort words relating to the evaluation (e.g., good, bad). So if the category "good" was on the left, and a pleasant word appeared on the screen, you would press the "e" key.

In the third part of the IAT the categories are combined and you are asked to sort both concept and evaluation words. So the categories on the left hand side would be Fat People/Good and the categories on the right hand side would be Thin People/Bad. It is important to note that the order in which the blocks are presented varies across participants, so some people will do the Fat People/Good, Thin People/Bad part first and other people will do the Fat People/Bad, Thin People/Good part first.

In the fourth part of the IAT the placement of the concepts switches. If the category "Fat People" was previously on the left, now it would be on the right. Importantly, the number of trials in this part of the IAT is increased in order to minimize the effects of practice.

In the final part of the IAT the categories are combined in a way that is opposite what they were before. If the category on the left was previously Fat People/Good, it would now be Fat People/Bad.

The IAT score is based on how long it takes a person, on average, to sort the words in the third part of the IAT versus the fifth part of the IAT. We would say that one has an implicit preference for thin people relative to fat people if they are faster to categorize words when Thin People and Good share a response key and Fat People and Bad share a response key, relative to the reverse.

How (Un)ethical Are You?, M. Banaji et al, Harv. Bus Rev. (2003): Entry-level discussion placing implicit bias on the "charts" for recognition and examination. Identifies the location in the brain that stores and employs key assumptions, the immutable nature, and the kind of research that has revealed its presence.

Answer true or false: "I am an ethical manager."

If you answered "true," here's an uncomfortable fact: You're probably not. Most of us believe that we are ethical and unbiased. We imagine we're good decision makers, able to objectively size up a job candidate or a venture deal and reach a fair and rational conclusion that's in our, and our organization's, best interests. But more than two decades of research confirms that, in reality, most of us fall woefully short of our inflated self-perception. We're deluded by what Yale psychologist David Armor calls the illusion of objectivity, the notion that we're free of the very biases we're so quick to recognize in others. What's more, these unconscious, or implicit, biases can be contrary to our consciously held, explicit beliefs. We may believe with confidence and conviction that a job candidate's race has no bearing on our hiring decisions or that we're immune to conflicts of interest. But psychological research routinely exposes counterintentional, unconscious biases. The prevalence of these biases suggests that even the most well-meaning person unwittingly allows unconscious thoughts and feelings to influence seemingly objective decisions. These flawed judgments are ethically problematic and undermine managers'

fundamental work—to recruit and retain superior talent, boost the performance of individuals and teams, and collaborate effectively with partners.

This article explores four related sources of unintentional unethical decision making: implicit forms of prejudice, bias that favors one's own group, conflict of interest, and a tendency to overclaim credit. Because we are not consciously aware of these sources of bias, they often cannot be addressed by penalizing people for their bad decisions. Nor are they likely to be corrected through conventional ethics training. Rather, managers must bring a new type of vigilance to bear. To begin, this requires letting go of the notion that our conscious attitudes always represent what we think they do. It also demands that we abandon our faith in our own objectivity and our ability to be fair. In the following pages, we will offer strategies that can help managers recognize these pervasive, corrosive, unconscious biases and reduce their impact.

Implicit Prejudice:

Bias That Emerges from Unconscious Beliefs

Most fair-minded people strive to judge others according to their merits, but our research shows how often people instead judge according to unconscious stereotypes and attitudes, or "implicit prejudice." What makes implicit prejudice so common and persistent is that it is rooted in the fundamental mechanics of thought. Early on, we learn to associate things that commonly go together and expect them to inevitably coexist: thunder and rain, for instance, or gray hair and old age. This skill—to perceive and learn from associations—often serves us well.

But, of course, our associations only reflect approximations of the truth; they are rarely applicable to every encounter. Rain doesn't always accompany thunder, and the young can also go gray. Nonetheless, because we automatically make such associations to help us organize our world, we grow to trust them, and they can blind us to those instances in which the associations are not accurate—when they don't align with our expectations.

Because implicit prejudice arises from the ordinary and unconscious tendency to make associations, it is distinct from conscious forms of prejudice, such as overt racism or sexism. This distinction explains why people who are free from conscious prejudice may still harbor biases and act accordingly. Exposed to images that juxtapose black men and violence, portray women as sex objects, imply that the physically disabled are mentally weak and the poor are lazy, even the most consciously unbiased person is bound to make biased associations. These associations play out in the workplace just as they do anywhere else.

In the mid-1990s, Tony Greenwald, a professor of psychology at the University of Washington, developed an experimental tool called the Implicit Association Test (IAT) to study unconscious bias. A computerized version of the test requires subjects to rapidly classify words and images as "good" or "bad." Using a keyboard, test takers must make split-second "good/bad" distinctions between words like "love," "joy," "pain," and "sorrow" and at the same time sort images of faces that are (depending on the bias in question) black or white, young or old, fat or thin, and so on. The test exposes implicit biases by detecting subtle shifts in reaction time that can occur when test takers are required to pair different sets of words and faces. Subjects who consciously

believe that they have no negative feelings toward, say, black Americans or the elderly are nevertheless likely to be slower to associate elderly or black faces with the "good" words than they are to associate youthful or white faces with "good" words.

Since 1998, when Greenwald, Brian Nosek, and Mahzarin Banaji put the IAT online, people from around the world have taken over 2.5 million tests, confirming and extending the findings of more traditional laboratory experiments. Both show implicit biases to be strong and pervasive. (For more information on the IAT, see the sidebar "Are You Biased?").

Are You Biased?

Are you willing to bet that you feel the same way toward European-Americans as you do toward African-Americans? How about women versus men? Or older people versus younger ones? Think twice before you take that bet. Visit implicit.harvard.edu or www.tolerance.org/hidden_bias to examine your unconscious attitudes.

The Implicit Association Tests available on these sites reveal unconscious beliefs by asking takers to make split-second associations between words with positive or negative connotations and images representing different types of people. The various tests on these sites expose the differences—or the alignment—between test takers' conscious and unconscious attitudes toward people of different races, sexual orientation, or physical characteristics. Data gathered from over 2.5 million online tests and further research tells us that unconscious biases are:

- **widely prevalent.** At least 75% of test takers show an implicit bias favoring the young, the rich, and whites.

- **robust.** The mere conscious desire not to be biased does not eliminate implicit bias.

- **contrary to conscious intention.** Although people tend to report little or no *conscious* bias against African-Americans, Arabs, Arab-Americans, Jews, gay men, lesbians, or the poor, they show substantial biases on implicit measures.

- **different in degree depending on group status.** Minority group members tend to show less implicit preference for their own group than majority group members show for theirs. For example, African-Americans report strong preference for their group on explicit measures but show relatively less implicit preference in the tests. Conversely, white Americans report a low explicit bias for their group but a higher implicit bias.

- **consequential.** Those who show higher levels of bias on the IAT are also likely to behave in ways that are more biased in face-to-face interactions with members of the group they are biased against and in the choices they make, such as hiring decisions.

- **costly.** Research currently under way in our lab suggests that implicit bias generates a "stereotype tax"—negotiators leave money on the table because biases cause them to miss opportunities to learn about their opponent and thus create additional value through mutually beneficial trade-offs.

Biases are also likely to be costly. In controlled experiments, psychologists Laurie Rudman at Rutgers and Peter Glick at Lawrence University have studied how implicit biases may work to exclude qualified people from certain roles. One set of experiments examined the relationship between participants' implicit gender stereotypes and their hiring decisions. Those holding stronger implicit biases were less likely to select a qualified woman who exhibited stereotypically "masculine" personality qualities, such as ambition or independence, for a job requiring stereotypically "feminine" qualities, such as interpersonal skills. Yet they would select a qualified man exhibiting these same qualities. The hirers' biased perception was that the woman was less likely to be socially skilled than the man, though their qualifications were in fact the same. These results suggest that implicit biases may exact costs by subtly excluding qualified people from the very organizations that seek their talents.

Legal cases also reveal the real costs of implicit biases, both economic and social. Consider *Price Waterhouse v. Hopkins*. Despite logging more billable hours than her peers, bringing in $25 million to the company, and earning the praise of her clients, Ann Hopkins was turned down for partner, and she sued. The details of the case reveal that her evaluators were explicitly prejudiced in their attitudes. For example, they had commented that Ann "overcompensated for being a woman" and needed a "course at charm school." But perhaps more damning from a legal standpoint was blunt testimony from experimental research. Testifying as an expert witness for the defense, psychology professor Susan Fiske, now at Princeton University, argued that the potential for biased decision making is *inherent* in a system in which a person has "solo" status—that is, a system in which the person is the only one of a kind (the only woman, the only African-American, the only person with a disability, and the like). Judge Gerhard Gesell concluded that "a far more subtle process [than the usual discriminatory intent] is involved" in the assessments made of Ann Hopkins, and she won both in a lower court and in the Supreme Court in what is now a landmark case in discrimination law.

Likewise, the 1999 case of *Thomas v. Kodak* demonstrates that implicit biases can be the basis for rulings. Here, the court posed the question of "whether the employer consciously intended to base the evaluations on race or simply did so because of unthinking stereotypes or bias." The court concluded that plaintiffs can indeed challenge "subjective evaluations which could easily mask covert or unconscious race discrimination." Although courts are careful not to assign responsibility easily for unintentional biases, these cases demonstrate the potential for corporate liability that such patterns of behavior could unwittingly create.

In-Group Favoritism:

Bias That Favors Your Group

Think about some of the favors you have done in recent years, whether for a friend, a relative, or a colleague. Have you helped someone get a useful introduction, admission to a school, or a job?

Most of us are glad to help out with such favors. Not surprisingly, we tend to do more favors for those we know, and those we know tend to be like ourselves: people who share our nationality, social class, and perhaps religion, race, employer, or alma mater. This all sounds rather innocent. What's wrong with asking your neighbor, the university dean, to meet with a coworker's son? Isn't it just being helpful to recommend a former sorority sister for a job or to talk to your banker cousin when a friend from church gets turned down for a home loan?

Few people set out to exclude anyone through such acts of kindness. But when those in the majority or those in power allocate scarce resources (such as jobs, promotions, and mortgages) to people just like them, they effectively discriminate against those who are different from them. Such "in-group favoritism" amounts to giving extra credit for group membership. Yet while discriminating against those who are different is considered unethical, helping people close to us is often viewed favorably. Think about the number of companies that explicitly encourage this by offering hiring bonuses to employees who refer their friends for job opportunities.

But consider the finding that banks in the United States are more likely to deny a mortgage application from a black person than from a white person, even when the applicants are equally qualified. The common view has been that banks are hostile to African-Americans. While this may be true of some banks and some loan officers, social psychologist David Messick has argued that in-group favoritism is more likely to be at the root of such discriminatory lending. A white loan officer may feel hopeful or lenient toward an unqualified white applicant while following the bank's lending standards strictly with an unqualified black applicant. In denying the black applicant's mortgage, the loan officer may not be expressing hostility toward blacks so much as favoritism toward whites. It's a subtle but crucial distinction.

Would you be willing to risk being in the group disadvantaged by your own decision?

The ethical cost is clear and should be reason enough to address the problem. But such inadvertent bias produces an additional effect: It erodes the bottom line. Lenders who discriminate in this way, for example, incur bad-debt costs they could have avoided if their lending decisions were more objective. They also may find themselves exposed to damaging publicity or discrimination lawsuits if the skewed lending pattern is publicly revealed. In a different context, companies may pay a real cost for marginal hires who wouldn't have made the grade but for the sympathetic hiring manager swayed by in-group favoritism.

In-group favoritism is tenacious when membership confers clear advantages, as it does, for instance, among whites and other dominant social groups. (It may be weaker or absent among people whose group membership offers little societal advantage.) Thus for a wide array of managerial tasks—from hiring, firing, and promoting to contracting services and forming partnerships—qualified minority candidates are subtly and unconsciously discriminated against, sometimes simply because they are in the minority: There are not enough of them to counter the propensity for in-group favoritism in the majority.

Overclaiming Credit:

Bias That Favors You

It's only natural for successful people to hold positive views about themselves. But many studies show that the majority of people consider themselves above average on a host of measures, from intelligence to driving ability. Business executives are no exception. We tend to overrate our individual contribution to groups, which, bluntly put, tends to lead to an overblown sense of entitlement. We become the unabashed, repeated beneficiaries of this unconscious bias, and the more we think only of our own contributions, the less fairly we judge others with whom we work.

Lab research demonstrates this most personal of biases. At Harvard, Eugene Caruso, Nick Epley, and Max Bazerman recently asked MBA students in study groups to estimate what portion of their group's work each had done. The sum of the contribution by all members, of course, must add up to 100%. But the researchers found that the totals for each study group averaged 139%. In a related study, Caruso and his colleagues uncovered rampant overestimates by academic authors of their contribution to shared research projects. Sadly, but not surprisingly, the more the sum of the total estimated group effort exceeded 100% (in other words, the more credit each person claimed), the less the parties wanted to collaborate in the future.

Likewise in business, claiming too much credit can destabilize alliances. When each party in a strategic partnership claims too much credit for its own contribution and becomes skeptical about whether the other is doing its fair share, they both tend to reduce their contributions to compensate. This has obvious repercussions for the joint venture's performance.

Unconscious overclaiming can be expected to reduce the performance and longevity of groups within organizations, just as it diminished the academic authors' willingness to collaborate. It can also take a toll on employee commitment. Think about how employees perceive raises. Most are not so different from the children at Lake Wobegon, believing that they, too, rank in the upper half of their peer group. But many necessarily get pay increases that are below the average. If an employee learns of a colleague's greater compensation—while honestly believing that he himself is more deserving—resentment may be natural. At best, his resentment might translate into reduced commitment and performance. At worst, he may leave the organization that, it seems, doesn't appreciate his contribution.

Bias That Favors Those Who Can Benefit You

Everyone knows that conflict of interest can lead to intentionally corrupt behavior. But numerous psychological experiments show how powerfully such conflicts can unintentionally skew decision making. (For an examination of the evidence in one business arena, see Max Bazerman, George Loewenstein, and Don Moore's November 2002 HBR article, "Why Good Accountants Do Bad Audits.") These experiments suggest that the work world is rife with situations in which such conflicts lead honest, ethical professionals to unconsciously make unsound and unethical recommendations.

Physicians, for instance, face conflicts of interest when they accept payment for referring patients into clinical trials. While, surely, most physicians consciously believe that their referrals are the patient's best clinical option, how do they know that the promise of payment did not skew their decisions? Similarly, many lawyers earn fees based on their clients' awards or settlements. Since going to trial is expensive and uncertain, settling out of court is often an attractive option for the lawyer. Attorneys may consciously believe that settling is in their clients' best interests. But how can they be objective, unbiased judges under these circumstances?

Research done with brokerage house analysts demonstrates how conflict of interest can unconsciously distort decision making. A survey of analysts conducted by the financial research service First Call showed that during a period in 2000 when the Nasdaq dropped 60%, fully 99% of brokerage analysts' client recommendations remained "strong buy," "buy," or "hold." What accounts for this discrepancy between what was happening and what was recommended? The answer may lie in a system that fosters conflicts of interest. A portion of analysts' pay is based on brokerage firm revenues. Some firms even tie analysts' compensation to the amount of business the analysts bring in from clients, giving analysts an obvious incentive to prolong and extend their relationships with clients. But to assume that during this Nasdaq free fall all brokerage house analysts were consciously corrupt, milking their clients to exploit this incentive system, defies common sense. Surely there were some bad apples. But how much more likely it is that most of these analysts believed their recommendations were sound and in their clients' best interests. What many didn't appreciate was that the built-in conflict of interest in their compensation incentives made it impossible for them to see the implicit bias in their own flawed recommendations.

Trying Harder Isn't Enough

As companies keep collapsing into financial scandal and ruin, corporations are responding with ethics-training programs for managers, and many of the world's leading business schools have created new courses and chaired professorships in ethics. Many of these efforts focus on teaching broad principles of moral philosophy to help managers understand the ethical challenges they face.

We applaud these efforts, but we doubt that a well-intentioned, just-try-harder approach will fundamentally improve the quality of executives' decision making. To do that, ethics training must be broadened to include what is now known about how our minds work and must expose managers directly to the unconscious mechanisms that underlie biased decision making. And it must provide managers with exercises and interventions that can root out the biases that lead to bad decisions.

Managers can make wiser, more ethical decisions if they become mindful of their unconscious biases. But how can we get at something outside our conscious awareness? By bringing the conscious mind to bear. Just as the driver of a misaligned car deliberately counteracts its pull, so can managers develop conscious strategies to counteract the pull of their unconscious biases. What's required is vigilance—continual awareness of the forces that can cause decision making to veer from its intended course and continual adjustments to counteract them. Those

adjustments fall into three general categories: collecting data, shaping the environment, and broadening the decision-making process.

Collect data.

The first step to reducing unconscious bias is to collect data to reveal its presence. Often, the data will be counterintuitive. Consider many people's surprise to learn of their own gender and racial biases on the IAT. Why the surprise? Because most of us trust the "statistics" our intuition provides. Better data are easily, but rarely, collected. One way to get those data is to examine our decisions in a systematic way.

Remember the MBA study groups whose participants overestimated their individual contributions to the group effort so that the totals averaged 139%? When the researchers asked group members to estimate what each of the other members' contributions were *before* claiming their own, the total fell to 121%. The tendency to claim too much credit still persisted, but this strategy of "unpacking" the work reduced the magnitude of the bias. In environments characterized by "I deserve more than you're giving me" claims, merely asking team members to unpack the contributions of others before claiming their own share of the pot usually aligns claims more closely with what's actually deserved. As this example demonstrates, such systematic audits of both individual and group decision-making processes can occur even as the decisions are being made.

Are your company's high achievers all cast from the same mold?

Unpacking is a simple strategy that managers should routinely use to evaluate the fairness of their own claims within the organization. But they can also apply it in any situation where team members or subordinates may be overclaiming. For example, in explaining a raise that an employee feels is inadequate, a manager should ask the subordinate not what he thinks he alone deserves but what he considers an appropriate raise after taking into account each coworker's contribution and the pool available for pay increases. Similarly, when an individual feels she's doing more than her fair share of a team's work, asking her to consider other people's efforts before estimating her own can help align her perception with reality, restore her commitment, and reduce a skewed sense of entitlement.

Taking the IAT is another valuable strategy for collecting data. We recommend that you and others in your organization use the test to expose your own implicit biases. But one word of warning: Because the test is an educational and research tool, not a selection or evaluation tool, it is critical that you consider your results and others' to be private information. Simply knowing the magnitude and pervasiveness of your own biases can help direct your attention to areas of decision making that are in need of careful examination and reconsideration. For example, a manager whose testing reveals a bias toward certain groups ought to examine her hiring practices to see if she has indeed been disproportionately favoring those groups. But because so many people harbor such biases, they can also be generally acknowledged, and that knowledge can be used as the basis for changing the way decisions are made. It is important to guard against using pervasiveness to justify complacency and inaction: Pervasiveness of bias is not a mark of its

appropriateness any more than poor eyesight is considered so ordinary a condition that it does not require corrective lenses.

What list of names do you start with when considering whom to send to a training program, recommend for a new assignment, or nominate for a fast-track position?

Shape your environment.

Research shows that implicit attitudes can be shaped by external cues in the environment. For example, Curtis Hardin and colleagues at UCLA used the IAT to study whether subjects' implicit race bias would be affected if the test was administered by a black investigator. One group of students took the test under the guidance of a white experimenter; another group took the test with a black experimenter. The mere presence of a black experimenter, Hardin found, reduced the level of subjects' implicit antiblack bias on the IAT. Numerous similar studies have shown similar effects with other social groups. What accounts for such shifts? We can speculate that experimenters in classrooms are assumed to be competent, in charge, and authoritative. Subjects guided by a black experimenter attribute these positive characteristics to that person, and then perhaps to the group as a whole. These findings suggest that one remedy for implicit bias is to expose oneself to images and social environments that challenge stereotypes.

We know of a judge whose court is located in a predominantly African-American neighborhood. Because of the crime and arrest patterns in the community, most people the judge sentences are black. The judge confronted a paradox. On the one hand, she took a judicial oath to be objective and egalitarian, and indeed she consciously believed that her decisions were unbiased. On the other hand, every day she was exposed to an environment that reinforced the association between black men and crime. Although she consciously rejected racial stereotypes, she suspected that she harbored unconscious prejudices merely from working in a segregated world. Immersed in this environment each day, she wondered if it was possible to give the defendants a fair hearing.

Rather than allow her environment to reinforce a bias, the judge created an alternative environment. She spent a vacation week sitting in a fellow judge's court in a neighborhood where the criminals being tried were predominantly white. Case after case challenged the stereotype of blacks as criminal and whites as law abiding and so challenged any bias against blacks that she might have harbored.

Think about the possibly biased associations your workplace fosters. Is there, perhaps, a "wall of fame" with pictures of high achievers all cast from the same mold? Are certain types of managers invariably promoted? Do people overuse certain analogies drawn from stereotypical or narrow domains of knowledge (sports metaphors, for instance, or cooking terms)? Managers can audit their organization to uncover such patterns or cues that unwittingly lead to stereotypical associations.

If an audit reveals that the environment may be promoting unconscious biased or unethical behavior, consider creating countervailing experiences, as the judge did. For example, if your department reinforces the stereotype of men as naturally dominant in a hierarchy (most managers are male, and most assistants are female), find a department with women in leadership positions

and set up a shadow program. Both groups will benefit from the exchange of best practices, and your group will be quietly exposed to counterstereotypical cues. Managers sending people out to spend time in clients' organizations as a way to improve service should take care to select organizations likely to counter stereotypes reinforced in your own company.

Broaden your decision making.

Imagine that you are making a decision in a meeting about an important company policy that will benefit some groups of employees more than others. A policy might, for example, provide extra vacation time for all employees but eliminate the flex time that has allowed many new parents to balance work with their family responsibilities. Another policy might lower the mandatory retirement age, eliminating some older workers but creating advancement opportunities for younger ones. Now pretend that, as you make your decisions, you don't know which group you belong to. That is, you don't know whether you are senior or junior, married or single, gay or straight, a parent or childless, male or female, healthy or unhealthy. You will eventually find out, but not until after the decision has been made. In this hypothetical scenario, what decision would you make? Would you be willing to risk being in the group disadvantaged by your own decision? How would your decisions differ if you could make them wearing various identities not your own?

Just considering a counterstereotypical choice at the conscious level can reduce implicit bias.

This thought experiment is a version of philosopher John Rawls's concept of the "veil of ignorance," which posits that only a person ignorant of his own identity is capable of a truly ethical decision. Few of us can assume the veil completely, which is precisely why hidden biases, even when identified, are so difficult to correct. Still, applying the veil of ignorance to your next important managerial decision may offer some insight into how strongly implicit biases influence you.

Just as managers can expose bias by collecting data before acting on intuition, they can take other preemptive steps. What list of names do you start with when considering whom to send to a training program, recommend for a new assignment, or nominate for a fast-track position? Most of us can quickly and with little concentration come up with such a list. But keep in mind that your intuition is prone to implicit prejudice (which will strongly favor dominant and well-liked groups), in-group favoritism (which will favor people in your own group), overclaiming (which will favor you), and conflict of interest (which will favor people whose interests affect your own). Instead of relying on a mental short list when making personnel decisions, start with a full list of names of employees who have relevant qualifications.

Using a broad list of names has several advantages. The most obvious is that talent may surface that might otherwise be overlooked. Less obvious but equally important, the very act of considering a counterstereotypical choice at the conscious level can reduce implicit bias. In fact, merely thinking about hypothetical, counterstereotypical scenarios—such as what it would be like to trust a complex presentation to a female colleague or to receive a promotion from an African-American boss—can prompt less-biased and more ethical decision making. Similarly,

consciously considering counterintuitive options in the face of conflicts of interest, or when there's an opportunity to overclaim, can promote more objective and ethical decisions.

The Vigilant Manager

If you answered "true" to the question at the start of this article, you felt with some confidence that you are an ethical decision maker. How would you answer it now? It's clear that neither simple conviction nor sincere intention is enough to ensure that you are the ethical practitioner you imagine yourself to be. Managers who aspire to be ethical must challenge the assumption that they're always unbiased and acknowledge that vigilance, even more than good intention, is a defining characteristic of an ethical manager. They must actively collect data, shape their environments, and broaden their decision making. What's more, an obvious redress is available. Managers should seek every opportunity to implement affirmative action policies—not because of past wrongs done to one group or another but because of the everyday wrongs that we can now document are inherent in the ordinary, everyday behavior of good, well-intentioned people. Ironically, only those who understand their own potential for unethical behavior can become the ethical decision makers that they aspire to be.

The Development of Implicit Attitudes: Evidence of Race Evaluations From Ages 6 and 10 and Adulthood, Baron et al, Psychological Science 17.1 (2006)

Research Article

The Development of Implicit Attitudes

Evidence of Race Evaluations From Ages 6 and 10 and Adulthood

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ABSTRACT—*To understand the origin and development of implicit attitudes, we measured race attitudes in White American 6-year-olds, 10-year-olds, and adults by first developing a child-oriented version of the Implicit Association Test (Child IAT). Remarkably, implicit pro-White/anti-Black bias was evident even in the youngest group, with self-reported attitudes revealing bias in the same direction. In 10-year-olds and adults, the same magnitude of implicit race bias was observed, although self-reported race attitudes became substantially less biased in older children and vanished entirely in adults, who self-reported equally favorable attitudes toward Whites and Blacks. These data are the first to show an asymmetry in the development of implicit and explicit race attitudes, with explicit attitudes becoming more egalitarian and implicit attitudes remaining stable and favoring the in-group across development. We offer a tentative suggestion that mean levels of implicit and explicit attitudes diverge around age 10.*

How early in development are implicit attitudes toward social groups formed? What is the developmental pattern of the relationship between such attitudes and those that are consciously expressed? When does the dissociation between the two observed in adults emerge in young children? In this article, we report the first evidence of the development of implicit and explicit attitudes toward social and nonsocial groups using three age groups. The presence of implicit forms of attitudes in adults has been well demonstrated, as has the ability to use such attitudes to predict a wide range of behaviors, including friendliness toward out-groups, selection for a job, and allocation of resources (see Poehlman, Uhlmann, Greenwald, & Banaji, 2005, for a review). Understanding the development of implicit attitudes in young children is imperative given the important role intergroup attitudes play throughout life. Moreover, investigating the nature of implicit social cognition in children provides an opportunity to understand the social-cognitive mechanisms that are universal and the cultural processes that mark the development of these attitudes and preferences.

Creating a modified, child-friendly version of the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998), first introduced here as the Child IAT, we measured implicit race attitudes in white North American middle-class children. We selected race as the social category because of evidence that North American children achieve an adultlike concept of this category by age 5 (Hirschfeld, 1996, 2001). In a series of studies, Hirschfeld showed that children as young as 4 do not rely on perceptual information alone when categorizing people. Instead, children appear to essentialize racial kinds, regarding race as a property that is fixed at birth and resistant to change across time and surface features, and even believe it to be predictive of nonobvious properties. In other words, children's concept of race may be commensurate with that of adults (cf. Allport, 1954).

In the present study, we investigated whether kindergartners (5- and 6-year-olds) have implicit attitudes toward race categories soon after the age at which they are expected to have achieved a mature representation of the concept of race. Aboud (1988) showed that self-reports at this age reveal evaluative assessments, or attitudes, associated with racial categories. White North American children begin to report negative explicit attitudes toward out-group members as early as age 3; such attitudes begin to decline by age 7, until they disappear around

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age 12. What is unknown is how the parallel development of automatic (implicit) associations of good and bad attributes with racial categories unfolds. We tracked implicit race attitudes also in 10-year-olds, as well as adults, to view the developmental progression of such attitudes cross-sectionally. Much has been learned about adults' implicit attitudes using the IAT (Banaji, 2001; Greenwald et al., 1998; Lane & Banaji, 2004; Nosek, Banaji, & Greenwald, 2002); therefore, this sample also provided a benchmark for testing the new child version of the IAT.

To allow more confident interpretation of the results, we also included a measure of implicit attitudes toward nonsocial categories (insects and flowers). Because flowers are known to elicit more positive implicit attitudes than insects in most people (Greenwald et al., 1998), if the insect-flower Child IAT revealed the expected attitude effect, a potential null result on the race test among children could be interpreted as a genuine lack of race bias, rather than a failure of the new measure to detect an effect.

METHOD

Participants

The sample consisted of 79 participants (39 males, 40 females): 27 kindergartners (mean age = 6 years 1 month; 14 males, 13 females); 30 fifth graders (mean age = 10 years 2 months; 15 males, 15 females); and 22 adults (mean age = 19 years; 10 males, 12 females). Participants were recruited from a predominantly middle-class European American community. Children were tested in an elementary school in a Boston suburb; adults were tested in a laboratory at Harvard University.

Procedure

The IAT

The IAT measures the relative strength of association between a target concept (e.g., race: African American and European American) and an attribute concept (e.g., evaluation: words with good meanings and words with bad meanings). The IAT is a response latency measure that rests on an assumption it shares with other measures of associative strength—that the more strongly two concepts have come to be associated with one another, the faster and more accurately they can be paired together (see Banaji, 2001, for a comparison with other measures).

In a typical procedure used with adults, participants first practice classifying stimuli in terms of a *target* concept such as race or gender. For example, pictures of Black and White Americans, appearing one at a time in the middle of the screen, are classified using two keys (typically the "E" and "I" keys) on a computer keyboard. Participants press one key in response to all pictures of Black Americans and press the other key in response to all pictures of White Americans. Trials advance only following correct responses, to encourage low error rates.

Participants next practice classifying stimuli in terms of an *attribute* concept that has two categories. For example, if evaluation is the attribute dimension, words with good or bad meaning (e.g., *love*, *joy*, *friend*, *hate*, *vomit*, *bomb*) appear one at a time in the middle of the screen, and participants press one key in response to words with a good meaning and press the other key in response to words with a bad meaning. These single-dimension tasks serve to familiarize participants with the target and attribute dimensions and the stimulus set.

In the next block of trials, the strength of the association between the target concept (e.g., race) and the attribute concept (e.g., evaluation) is measured. These trials require categorizing the four classes of items using two keys, with one target and one attribute category sharing each response key. Participants are presented with a total of 60 trials (20 practice trials, followed by 40 critical trials) in which they view faces of *African Americans* and *European Americans* and *good* and *bad* attribute words in equal numbers (15 trials of each stimulus type). Stimuli are presented one at a time.

In one block of trials, target concept A is paired with attribute concept A (e.g., "When you see a *Black* face or a *good* word, press the 'E' key"), and target concept B is paired with attribute concept B (e.g., "When you see a *White* face or a *bad* word, press the 'I' key").

Then, the target concepts switch location, such that target concept B is paired with attribute A (e.g., *White* face and *good* word), and target concept A is paired with attribute B (e.g., *Black* face and *bad* word). The assumption is that the stronger these associations, the faster and more accurately participants will respond in the second block compared with the first. Readers interested in sampling this task may visit www.implicit.harvard.edu.

A response latency is recorded for each trial by measuring the time from the onset of the stimulus until a response (correct or incorrect) is entered. Each trial advances following a correct response, and there is a 1-s intertrial interval. The order of target-attribute pairings is counterbalanced between subjects so that order of blocks does not interfere with interpretation of the result.

We made several modifications to the standard IAT so that it would be suitable for use with children. The IAT typically uses faces to denote race. We used pictures of Black and White children's faces. Because of the variability in reading level among children, we substituted voice recordings of good and bad words for printed words. Recordings of the attribute words were made by an adult female and were presented auditorally through speakers built into the computer monitor. Thus, participants were instructed to press one button when they heard a good word and to press the other button when they heard a bad word. For the same reason, all instructions were spoken by the experimenter. Response latencies to all stimuli, pictures and auditory stimuli, were recorded, as were errors in classification. Response latencies for the attribute words were recorded after the full words were spoken.

Eight target stimuli were used for each Child IAT. The insect-flower test included four pictures of insects and four pictures of

flowers, and the race test included four pictures of European American children and four pictures of African American children. The eight attribute stimuli consisted of four words capturing a good concept (*good*, *nice*, *fun*, *happy*) and four capturing a bad concept (*bad*, *mean*, *yucky*, *mad*); these eight stimuli were used in both Child IATs. We chose words that appear frequently in young children's vocabulary.

Children were introduced to the task as a "computer game" in which they would see pictures and hear words and would have to press a button in response to each. Although all participants were tested individually, the experimenter remained in the room with child participants but not with adults. For the children, motor responses were facilitated by using two large JellyBean® buttons (3-in. diameter) instead of the "E" and "I" computer keys traditionally used with adults. All other aspects of the procedure were identical for adults and children. The insect-flower Child IAT was administered first, followed by the race Child IAT.

Explicit Attitude Measure: Self-Reported Preference

Following the Child IAT, participants viewed a series of paired pictures, presented side-by-side, and provided forced-choice preference judgments. The pairs consisted of same-race children, different-race children (i.e., one White child and one Black child), insects, flowers, and insect-flower pairs (i.e., one insect and one flower). On critical trials, a picture of a Black child and a picture of a White child were paired, and participants indicated whom they preferred. The pictures used in the explicit attitude measure were the same pictures used in the implicit attitude measure. Unlike in the Child IAT, participants were encouraged to take their time and to deliberate over their responses.

RESULTS AND DISCUSSION

We analyzed the implicit attitude measure following standard protocol for the improved scoring algorithm recommended by Greenwald, Nosek, and Banaji (2003). Two participants in the 6-year-old group were unable to complete the race Child IAT; they were included only in analyses of the insect-flower attitude data.

For each subject, an IAT score in the form of a measure termed *D*, a variant of Cohen's *d* (see Greenwald et al., 2003), was computed by calculating the difference between the mean response latencies for the two double-categorization blocks within each Child IAT and dividing that difference by its associated pooled standard deviation. Because of a difference in response latency as a function of type of stimulus presentation (pictures vs. spoken words) within each double-categorization block, we calculated separate IAT effects for responses to target stimuli and for responses to attribute stimuli and then averaged them to produce one score for each of the combined blocks. A multivariate analysis of variance (MANOVA) revealed no significant main effects of age or order (White + Good/Black + Bad first or White + Bad/Black + Good first) on the implicit measure of attitude. Additionally, no significant age-by-order interaction was observed (all $ps > .2$).

6-Year-Olds

Insect-Flower Attitudes

Not only were the youngest children in the study able to complete the Child IAT, but an implicit attitude was clearly detected. Six-year-olds were significantly faster to respond to insect + bad/flower + good trials than insect + good/flower + bad trials (mean difference = 109 ms), $D = 0.22$, $SD = 0.40$, $t(26) = 2.86$, $p < .01$. Although boys showed this preference for flowers over insects to a lesser extent than did girls, the gender difference was not statistically significant.

Similarly, 6-year-olds self-reported a clear preference for flowers over insects (77% of the time, participants chose a flower over an insect), $t(23) = 3.24$, $p < .01$. This explicit attitude effect was driven largely by females; females reported such a preference on 96% of the trials, but males preferred flowers on 43% of the trials, $t(22) = 4.02$, $p < .01$. The presence of a gender difference in self-reported attitude, but not in implicit attitude, suggests that by age 6, children's consciously expressed attitudes may be more exaggerated along gender lines than implicit attitudes for the same attitude objects.

Race Attitudes

As Figure 1 shows, the 6-year-olds had already developed implicit pro-White/anti-Black associations, observed in faster responding on White + good/Black + bad trials than Black + good/White + bad trials (mean difference = 79 ms). The average IAT effect was significant, $D = 0.22$, $SD = 0.24$, $t(24) = 4.48$, $p < .001$. These data are the first to reveal the emergence

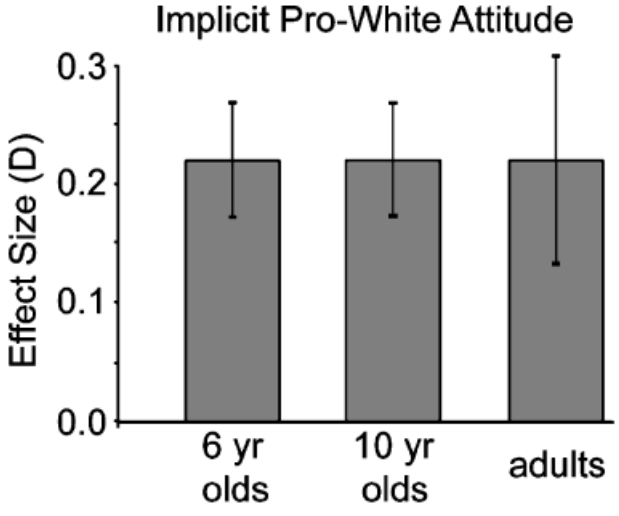

Fig. 1. Implicit race preference in the three age groups. A positive value of *D* indicates a preference for Whites relative to Blacks.

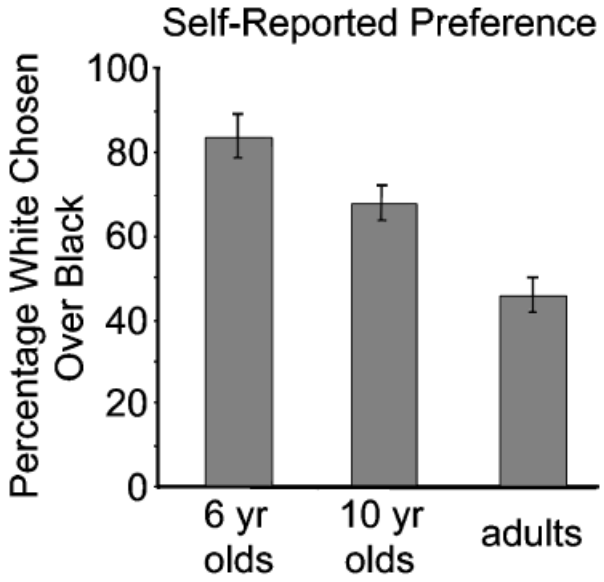

Fig. 2. Explicit race preference in the three age groups.

of implicit attitudes toward social groups in children as young as 6 years of age.

Six-year-olds' explicit race attitudes were consonant with their implicit attitudes. They self-reported a strong preference for photographic images of White compared with Black children (84% of the time, a picture of a White child was selected over that of a Black child), $t(21) = 6.38$, $p < .01$ (see Fig. 2). Both males and females reported a preference for Whites over Blacks, but there was a significant gender difference (93% vs. 70%, respectively), $t(20) = 2.38$, $p = .03$.

10-Year-Olds

Insect-Flower Attitudes

Like 6-year-olds, 10-year-olds were faster to respond to flower + good/insect + bad trials than to insect + good/flower + bad trials (mean difference = 117 ms), $D = 0.30$, $SD = 0.50$, $t(29) = 3.30$, $p < .01$.

Ten-year-olds showed the same pattern of preference on the explicit task as on the Child IAT, choosing flowers over insects 67% of the time, $t(29) = 2.14$, $p = .04$. As with the 6-year-olds, a gender difference in reported preference emerged; females were more likely than males to choose flowers over insects (88% vs. 45%, respectively), $t(28) = 3.19$, $p < .01$.

Race Attitudes

Ten-year-olds were faster to respond on White + good/Black + bad trials than on Black + good/White + bad trials (mean difference = 80 ms), $D = 0.22$, $SD = 0.26$, $t(29) = 4.58$, $p < .001$. Ten-year-olds and 6-year-olds did not differ in mean levels of implicit race attitudes, which suggests that these attitudes remain stable during the elementary-school years.

Similarly, 10-year-olds also revealed an explicit preference for Whites over Blacks (68% of the time, they chose the White child over the Black child), $t(29) = 4.13$, $p < .01$, but this preference was significantly more muted than that reported by 6-year-olds (68% vs. 84%, respectively), $t(50) = 2.27$, $p = .027$. In other words, although 6- and 10-year-olds showed the same magnitude of implicit race bias, by age 10 children's self-reported preference for their own group was significantly reduced (see Figs. 1 and 2).

Adults

Insect-Flower Attitudes

Replicating the result from many studies using the standard IAT, adults were faster to respond to flower + good trials than to insect + good trials on the Child IAT (mean difference = 138 ms), $D = 0.49$, $SD = 0.46$, $t(21) = 4.98$, $p < .001$. Similarly, adults self-reported a strong preference for flowers over insects (86% of the time, participants chose insects over flowers), $t(21) = 5.43$, $p < .01$, with no gender difference observed.

Race Attitudes

Adults showed the same implicit pro-White/anti-Black response bias on the race Child IAT as child participants did (mean difference = 89 ms), $D = 0.22$, $SD = 0.41$, $t(21) = 2.50$, $p = .021$. However, adults self-reported an equal preference for White and Black targets (46% of the time, participants chose the White child over the Black child), $t(21) = -0.672$, $p = .51$ (see Figs. 1 and 2).

GENERAL DISCUSSION

Taken together, these data show the early emergence of implicit attitudes toward both nonsocial (flower vs. insect) and social (Black vs. White) categories. By age 6, children appear to have formed detectable implicit attitudes toward social groups. Moreover, these attitudes did not vary across the three age groups studied here. Yet for self-reported race attitudes, a quite distinct pattern emerges. An early and strong preference for members of one's own social group subsides by age 10 and levels off to an equal preference for the in-group and out-group by adulthood.

That this dissociation between implicit and explicit attitudes was not observed at an earlier age raises the question of whether or not such implicit-explicit dissociations are even possible in younger children, whose conscious and less conscious attitudes may be more unified in valence than is the case for older children and adults. Note, however, that on the insect-flower test, 6-year-old boys implicitly preferred insects to flowers, but explicitly showed no preference. That such a dissociation was observed suggests that implicit and explicit attitudes need not be congruent at this young age.

What is one to make of these first findings on the development of race attitudes, and especially the dissociation between patterns of implicit and explicit attitudes across age? Should the data be interpreted as revealing general implicit in-group preference (i.e., any group of children tested would show an effect favoring their own group) or an effect that is peculiar to a dominant group's implicit preference, and therefore not likely to be mimicked by members of minority groups? Although this issue cannot be definitively resolved here, we do offer a few observations from previous research on adults and children. First, substantial data on adult Black Americans ($n > 5{,}000$) indicate that, on average, they lack an implicit in-group preference, instead showing no bias in favor of one or the other racial group, even though they report strong in-group liking on self-report measures (Nosek et al., 2002). Second, Baron, Shusterman, Bordeaux, and Banaji (2004) measured race attitudes in 12- to 14-year-old Black Americans who lived and attended school in Bronx, New York, and replicated the pattern found for Black adults. In other words, at least by age 13, young Black Americans do not show the in-group preference that has come to be the hallmark of White Americans, close to 80% of whom show some degree of in-group preference on the IAT.

To date, we have interpreted the relative lack of in-group bias in adult Black Americans as revealing a culturally driven modulation of the default in-group bias. Group membership pushes in the direction of in-group positivity, but that positivity is modulated by the countervailing force of the evaluation of the group in the eyes of the broader culture. That evaluation then "becomes" the implicit attitude of group members. The best next step for research on this issue would be to test a sample of Black American children, matched to the present sample in age, but coming from a predominantly Black community. If Black 6-year-olds reveal the same pattern as the White 6-year-olds in this study, showing strong preference for their own group, this would provide support for the idea that in-group bias is the default, with shifts even by age 10 reflecting an internalization of the attitudes of the larger culture. However, if the obtained result reveals that Black 6-year-olds show an effect that resembles that of adolescent and adult Black Americans (i.e., no preference for the in-group over the out-group), this would suggest that by age 6, the typical in-group preference is modulated by knowledge of the group's standing in the more broadly based sociocultural hierarchy. Dunham, Baron, and Banaji (2004) reported that Hispanic children as young as 5 show an in-group preference for Hispanic over Black, but show no preference for Hispanic over White, which suggests that implicit intergroup attitudes are learned quite early, and that children who come from disadvantaged groups experience the lower attitudinal status of their own group.

In a recent article, Olsson, Ebert, Banaji, and Phelps (2005) reported that both Black and White adult Americans show quicker extinction to fear conditioning involving own-race faces than to fear conditioning involving other-race faces. Olsson et al. took this finding as indicating that group membership plays a robust role in attitudes, at least those that involve classical conditioning as the learning mechanism. The factor that mediated the slower extinction to out-group fear was romantic contact—participants who had had romantic relationships with out-group members were less likely than others to show this persistence of fear learning toward out-group members. Analyses of the tenacity and plasticity of intergroup attitudes across the life span will be crucial in building a proper understanding of the origins of prejudice.

What about the role of familiarity in producing the obtained effects? There is little doubt that familiarity plays a role in attitude development—what is familiar is more liked than what is unfamiliar (Cutting, 2003; Zajonc, 1968), and what is liked becomes more familiar because preference presumably leads to greater seeking of contact. However, Dasgupta, McGhee, Greenwald, and Banaji (2000; also see Dasgupta, Greenwald, & Banaji, 2003) ruled out familiarity as the dominant explanation of IAT effects by showing (a) preference for low-familiarity but positive stimuli over high-familiarity but negative stimuli and (b) preference effects that remain even after statistically controlling for familiarity effects item by item. However, in young children, it is quite possible that attitudes, both implicit and explicit, may indeed rely more on familiarity than on preference, and future tests of this possibility will be important. It will be relatively easy to create studies in which children are familiarized with otherwise novel social groups, so that it will be possible to observe potential changes in implicit attitudes that are uncontaminated by existing knowledge of who is good and less good (Baron, Dunham, & Banaji, 2005). Likewise, field studies in schools with broad diversity in ethnicity, class, culture, and nationality will also provide useful data.

The present data demonstrate that implicit attitudes can be measured in children using the Child IAT. There is no doubt that this measure will continue to be improved in subsequent studies, in particular, to make it available for use with younger samples. The basic procedure as described here is available for download by investigators interested in understanding a host of implicit attitudes in young children. The most recent procedures and data-analytic suggestions may be found at www.people.fas.harvard.edu/∼banaji.

In conclusion, the evidence from this and related studies completed in our laboratory suggests that implicit race attitudes are acquired early and remain relatively stable across development, even though explicit attitudes become more egalitarian. It is around age 10 that the split between mean levels of conscious and less conscious race attitudes first emerges, pointing out the differential sensitivity of these two forms of attitude to the societal demand to be unbiased in race-based evaluation.

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Cognitive Biases Make Judges and Jurors Believe Weird Things, SciTech Lawyer (Fall 2013), available at http://tinyurl.com/luxc63c.

Cognitive Biases Make Judges & Juries Believe Weird Things

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By Lance D. Reich

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"The natural cause of the human mind is certainly from credulity to skepticism."

—Thomas Jefferson

People often read stories of trials that make apparently fantastic factual determinations. For example, an award of billions in damages for a company's production of a chemical whose link to causing harm is very tenuous. Or an engineer is held liable for a structure that failed, even when the structure was built to specifications believed at the time to be safe. In the worst instance, people have been convicted of crimes based on "repressed memories" that an expert pulls from the victim's memory through hypnosis or some other form of psychological pseudoscience. Seeing such findings of fact by judges and juries, one wonders how a person could be so convinced of a spurious fact to assess a legal penalty. Unfortunately, the answer is quite simple: we humans, being irrational, sometimes make irrational decisions.

One defect in our thought process is that the logical framework through which we make our decisions is biased. More than 250 *cognitive biases* corrupt our decision making. A cognitive bias is a consistent deviation in a person's thought from a logically correct judgment. These biases lead to perceptual distortion of facts, illogical interpretation of evidence, and faulty predictions or conclusions based on the evidence presented.

Cognitive biases are mostly consistent across people, irrespective of race, economic status, or nationality. Consequently, those who seek to manipulate us—be they lawyers, experts, politicians, salesmen, or whomever—use these biases to force us to an incorrect decision given the facts presented. Thus, fact finders can be manipulated into deviating from the scientific method and into believing unscientific facts.

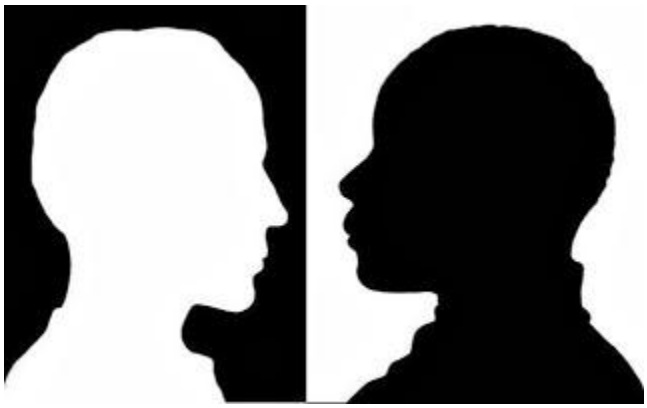
What follows is a summary of several of the more common cognitive biases that help manipulate people. Knowing the cognitive bias may not prevent a person from making a biased decision, but it provides a sanity check against what otherwise might become an incorrect decision. Because almost everyone has been subject to at least one of these "tricks" before, they may appear familiar.

Neuroethics Journal Club: Neural Correlates of Negative Sterotype. (Dec. 3, 2013), available at: http://www.theneuroethicsblog.com/2013/12/neuroethics-journal-club-neural.html#more

Neuroethics Journal Club: Neural Correlates of Negative Stereotype

Our everyday perceptions of others can potentially be biased by cultural stereotypes. However, research has suggested that an initial, and often negative, stereotype can be downregulated via a highly connected neural network. While this regulatory process has been studied under neutral conditions, for the third journal club of the semester Neuroscience graduate student Kim Lang led a discussion about regulation of this neural network when White individuals are not under neutral conditions, but actually primed for negative African American stereotyping.

A recent paper published by Forbes *et al.* used functional magnetic resonance imaging (fMRI) to study the amygdala, the prefrontal cortex (PFC), and the orbitofrontal cortex (OFC), three highly interconnected brain regions important for stereotyping and bias. Studies have shown that the amygdala, involved in arousal, is activated immediately when encountering a so-called out-group member. This first response can be downregulated though if an individual is given time for non-biased deliberation, and this is reflected by activation in the PFC. The OFC is the regulator of these two neural regions, especially if initial negative stereotyping is in conflict with an egalitarian view. Prior research has shown this amygdala inhibition by the lateral PFC region with an experiment where White participants were shown Black faces in either rapid succession (30 ms) or at a slower rate (525 ms). When participants did not have time to reflect on the faces during the fast exposure speeds, enhanced amygdala activation was observed reflecting the early arousing response. During the slow exposure time condition though, amygdala activity was not enhanced. Instead, increased activity was observed in the dorsolateral prefrontal cortex (DLPFC), which correlates with decreased amygdala activation (Cunningham *et al.*). This study suggests that if given enough time, a biased view reflected in the activation of the amygdala, can be reconsidered.



Adapted from The Jury Expert

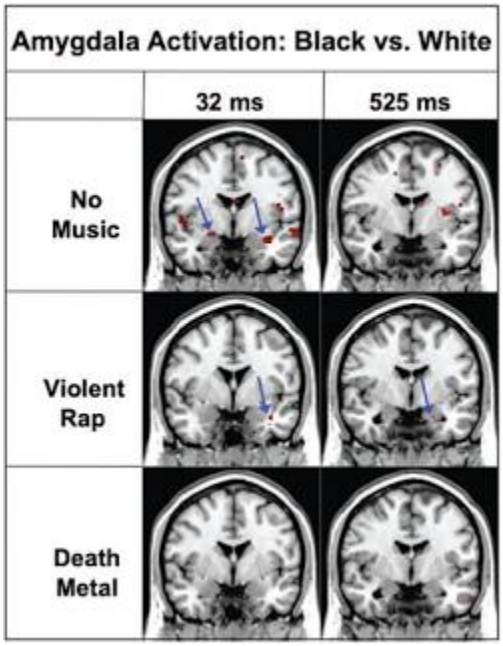
The authors of the paper for journal club discussion (Forbes *et al.*) took this previous experiment

further and studied the activation of the amygdala when White participants were exposed to Black faces at either 30 ms or 525 ms in the presence of violent and misogynistic rap (VMR) to create a situation that is primed for negative African American stereotyping. While evidence shows that individuals are able to downregulate the initial arousal and response to stereotypes, researchers hypothesized that if stereotypical or suggestive music were playing, then individuals would be less likely to downregulate the response even if given ample time to consider the situation. In other words, during the slow showing of Black faces in the presence of VMR, White participants would show a prolonged amygdala response instead of a downregulation. "Straight Outta Compton" by NWA was rated high by participants and chosen as the song to represent Black American stereotyping in the study. To prime for negative stereotyping, but not African American stereotyping, participants were also asked to rate a death metal (DM) song, since this genre of music is typically associated with White American culture. "Only One" by Slipknot was chosen based on a similarity in tempo and violent references to "Straight Outta Compton." Participants were then shown expressionless Black and White male faces at either the fast (30 ms) or the slow (525 ms) rate while listening to VMR, DM, or no music (NM) while the fMRI scans were completed. After the scanning, participants were asked general questions regarding their feelings toward the song, whether they owned any of the songs (no participants did), and how they rated themselves on the Modern Racism Scale[3] and the Motivation to Respond Without Prejudice Scale[4].

Based on the responses to the two rating systems, participants reported being non-prejudiced and motivated to regulate their biases, and the fMRI scans of the amygdala during the slow scan with NM reflected this. Consistent with previous work (Cunningham *et al.*), when participants were exposed to the faces at the fast rate, amygdala activation was observed and during the slow speed, OFC and DLPFC activation was recorded. When participants were exposed to Black and White faces at the fast speed in the presence of DM, no activation at the amygdala, OFC, or the DLPFC was observed. Similar to NM, at the slow speed during DM, activation of the OFC and DLPFC regions was still greater when seeing the Black faces compared to White faces, suggesting that participants were still engaging in a deeper processing of the Black faces. The focus of the hypothesis was the activation of brain regions in participants when VMR was playing. As predicted, when Black faces were displayed during the fast exposure, greater amygdala activation was observed compared to White faces. During the slow speed, participants still showed higher amygdala activity when seeing Black faces compared to White faces, but also increased OFC and DLPFC activation.

When comparing results across the two types of music and the context with no music, greater amygdala activation was seen during the fast and slow exposures for VMR than for NM and DM. As expected, greater DLPFC activity was seen for the fast and slow exposures for NM and DM compared to VMR. Interestingly, when exposed to the fast speed, greater OFC activation was seen for VMR compared to NM and DM. However, during the slow speed exposure, the opposite was observed, and greater OFC activity was seen for NM and DM compared to VMR. These findings suggest that not only is there a continuum of neural processing during slow and fast social cognitive assessments, but the lack of downregulation in the amygdala during the fast and slow speed exposure for VMR is evidence that although White individuals can control an initial, arousing reaction to a Black individual in a neutral context, this is more difficult when the situation lends itself to negative stereotyping. The authors offer two possible interpretations for

this lack of downregulation in the VMR scenario. Either exposure to the VMR causes a prolonged amygdala response that is cognitively taxing on other neural regions, making it difficult to control a response or the VMR justifies the initial response and reinforces that stereotype.



From Forbes *et al.*

Whether a situation that is primed for negative stereotyping makes deliberation more cognitively taxing or justifies an initial stereotype, brain activation isn't predictive for behavioral responses since similar activation patterns in individuals do not always give rise to similar behaviors. Although this study was more representative of everyday circumstances than the previous study with neutral conditions, it would be interesting to measure the neural activity of individuals when encountering situations that prime for negative stereotypes. Even if there is typically a lack of amygdala downregulation, does this mean that individuals still behaviorally restrain themselves?

A second experiment that was discussed during journal club as a potential follow-up to this paper would be to repeat the fast and slow exposures of Black faces during the three different musical contexts, but with Black participants instead of White participants. "Straight Outta Compton" is not subtle, but instead overtly violent and misogynistic, and it could be that people of all races would have an arousing response in the amygdala that would be difficult to regulate strictly due to the nature of the lyrics – not because the song stereotypes African American culture. Of course it is a matter of opinion whether "Only One" really mimics "Straight Outta Compton," or whether "Straight Outta Compton" is truly violent and misogynistic, so the experiments could be repeated with more and different songs to help confirm the hypothesis that "when something as subtle as a rap song is played in the background," White individuals negatively stereotype Black Americans (Forbes *et al.*).

More research will most likely be done in the future, but these results do have larger implications to consider for society today. Knowing that even in tolerant individuals with an egalitarian

viewpoint the amygdala is activated and can be difficult to downregulate, does this mean that neural activation would justify racial violence, especially in a court case? Should defense attorneys ever be able to claim that this activity in a context that primes for negative stereotyping is a valid defense for a violent or egregious crime against an out-group member? As neuroscience research becomes more sophisticated, more debates will follow about where we draw the line for allowing scientific research as evidence in the courtroom and when we must hold the individual solely responsible. In the meantime, hopefully when encountering an out-group member, we will consider that negative stereotypical contexts may prime us for negative stereotyping due to a complex neural interaction that is somewhat out of our control. If we are conscious that we have difficulties mediating initial responses, perhaps more conscious tolerance and reflection could follow a circumstance where an initial judgment seems justified based on contextual cues.

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