

CLERK OF THE COURT

1 **MOT**  
2 **ROBERT T. EGLET, ESQ.**

Nevada Bar No.: 3402

3 **DENNIS M. PRINCE, ESQ.**

Nevada Bar No.: 5092

4 **TRACY A. EGLET, ESQ.**

Nevada Bar No.: 6419

5 **DANIELLE TARMU, ESQ.**

Nevada Bar No.: 11727

6 **EGLET PRINCE**

400 South Seventh Street, Box 1, Suite 400

7 Las Vegas, NV 89101

8 Ph. : (702) 450-5400

9 Fax: (702) 450-5451

E-Mail: [eservice@egletlaw.com](mailto:eservice@egletlaw.com)

*Attorneys for Plaintiffs*

10 **DISTRICT COURT**  
11 **CLARK COUNTY, NEVADA**

12 NYIESHA COSTA, Individually and as natural  
13 mother of NIKHELAIS COSTA, a minor child,  
14 Deceased; and THE ESTATE OF NIKHELAIS  
15 COSTA, Deceased,

Plaintiffs,

16 vs.

17 SUMMERLIN HOSPITAL MEDICAL  
18 CENTER, LLC dba SUMMERLIN HOSPITAL  
19 MEDICAL CENTER, a Foreign Limited Liability  
20 Company; CHW NEVADA IMAGING  
21 COMPANY, LLC dba NEVADA IMAGING  
22 CENTERS, a Domestic Limited Liability  
23 Company; THOMAS ROSS TETZLAFF, M.D.,  
24 individually; BRIAN THONG VOVAN,  
25 M.D., individually; BARRY STEPHEN  
26 FRANK, M.D., individually; GIOIA  
27 & ASSOCIATES, LTD. dba PEDIATRIC  
28 ACUTE CARE aka CHILDREN'S ACUTE  
CARE aka CHILDREN'S ACUTE CARE,  
INC., a Domestic Professional Corporation;  
YU TIAN, M.D., PC, a Domestic  
Professional Corporation; YU TIAN, M.D.,  
individually, DOES 1 through 50; DOE  
EMPLOYEES 1 through 50; ROE  
CORPORATIONS 1 through 50, ROE  
BUSINESS ENTITIES 1 through 50,  
inclusive,

Defendants.

Case No.: A-11-640951-C

Dept. No.: XXX

**PLAINTIFF'S MOTION TO AFFIRM**  
**BLACK LIVES MATTER**

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COMES NOW, Plaintiff, by and through their attorneys, ROBERT T. EGLET, ESQ., DENNIS M. PRINCE, ESQ., TRACY A. EGLET, ESQ., and DANIELLE TARMU, ESQ. of EGLET PRINCE, and hereby submits her *Motion to Affirm Black Lives Matter*.

This Motion is based upon the pleadings and papers on file in this action, the Points and Authorities set forth herein, and argument to be made by counsel at the time of the hearing.

DATED this 9th day of October, 2015.

**EGLET PRINCE**

/s/ Robert T. Eglet  
ROBERT T. EGLET, ESQ.  
Nevada Bar No.: 3402  
DENNIS M. PRINCE, ESQ.  
Nevada Bar No.: 5092  
TRACY A. EGLET, ESQ.  
Nevada Bar No.: 6419  
DANIELLE TARMU, ESQ.  
Nevada Bar No.: 11727  
400 South Seventh Street, Box 1, Suite 400  
Las Vegas, Nevada 89101

**NOTICE OF MOTION**

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PLEASE TAKE NOTICE that the undersigned will bring the foregoing **PLAINTIFF'S**  
**MOTION TO AFFIRM BLACK LIVES MATTER** on for hearing on the 12 day of  
Nov., 2015, at the hour of 9:00 am, or as soon thereafter as counsel may be heard in  
Department XXX.

DATED this 9th day of October, 2015.

**EGLET PRINCE**

/s/ Robert T. Eglet  
ROBERT T. EGLET, ESQ.  
Nevada Bar No.: 3402  
DENNIS M. PRINCE, ESQ.  
Nevada Bar No.: 5092  
TRACY A. EGLET, ESQ.  
Nevada Bar No.: 6419  
DANIELLE TARMU, ESQ.  
Nevada Bar No.: 11727  
400 South Seventh Street, Box 1, Suite 400  
Las Vegas, Nevada 89101

MEMORANDUM OF POINTS AND AUTHORITIES

I.

INTRODUCTION

**In our courts, when it’s a white man’s word against a black man’s, the white man always wins. They’re ugly, but those are the facts of life.**

...

**The one place where a man ought to get a square deal is a courtroom, be he any color of the rainbow, but people have a way of carrying their resentments right into a jury box.**

Lee, Harper, To Kill a Mockingbird, 1960, p. 220 (emphasis added).

Plaintiff Nyiesha Costa is a black woman and her son, Nikhelais, was a black child who died due to medical negligence. Nyiesha requests this Court allow her to delve into the issues of race during jury selection, to attempt to ensure she and her deceased son are afforded a fair and impartial jury devoid of racial bias. She requests that the Court allow her to address issues of race in her jury questionnaire and during voir dire.

Recent racial events in the United States, prompting the formation of the #BlackLivesMatter movement, reveal the intense nature of racial bias rooted in the American public. Studies show that white people utilize race, knowingly or unknowingly, as a factor in determining the value of a black life. Racial bias is a taboo, proverbial “elephant in the [court]room,” yet it is not addressed in jury selection.

It is with heavy hearts these counsel pose this Motion to Your Honor, but in legal history, there has been no better time for these issues to be understood and considered.

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**II.**

**EVERY PERSON’S RIGHT TO AN UNPREJUDICED JURY**

The Nevada Constitution guarantees “[t]he right of trial by Jury shall be secured to all and remain inviolate forever,” and any prospective juror must be excused if they demonstrate a state of mind evincing “enmity against or bias to either party.” Nev. Const, Sec. 3; Nev. Rev. Stat. 16.050(1). The United States Supreme Court recognizes the fundamental importance of empanelling a fair and impartial jury, stating: “[i]t is difficult to conceive of a more effective obstruction to the judicial process than a juror who has prejudged the case.” *In re Michael*, 326 U.S. 224, 228 (1945).

**III.**

**PREJUDICE IN THE COURTROOM**

Despite continued efforts to defeat racism, there is no question that it continues in the United States, most emphatically so in the justice system despite the creation of laws to prevent it. Although racism has diminished since the early twentieth century, the ongoing concern is its evolution over the years into an internal bias rather than an external bias, and to take action to avoid such bias in the courtroom:

A historical look at prejudice in the legal system suggests two trends. First, statutes enacted during Reconstruction in the attempt to eliminate racial discrimination in the legal system were often met with resistance and defiance by Whites. Second, for the past 150 years the U.S. Supreme Court has consistently hesitated to directly confront the issue of prejudice in the courtroom. In recent decades, however, racial attitudes in American society have become less openly prejudicial, and even the Supreme Court seems to have become more sensitive to racism in the legal system. It is this gradual shift in many Whites' racial norms, rather than the immediate influence of federal legislation or higher court intervention, which is largely responsible for changes in the nature of juror bias over the years.

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This increased sensitivity of the [United States] Supreme Court to racial issues doubtless reflects more widespread change in the racial norms of society and the

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nature of modern prejudice. Unlike the Reconstruction-era atmosphere that encouraged anti-Black sentiment, today's racial norms condemn racial prejudice and emphasize egalitarianism (Flagg, 1998). But since anti-Black stereotypes and attitudes still persist in modern America, contemporary Whites often find themselves trying to reconcile prejudicial thoughts with egalitarian values. This conflict carries over into the courtroom where the explicit racism of past jurors is no longer a foregone conclusion. This shift in racial norms leads to the hypothesis that White juror bias is less likely to occur in racially-charged trials than it is in cases without salient racial issues.

...  
 However, in some situations the prejudicial attitudes and beliefs that linger in the consciousness of many Whites do emerge and influence their behavior and judgment. Gaertner and Dovidio (1986) predicted that when race is not salient or normative cues are absent during a social interaction or judgment task, Whites' motivation to appear nonprejudiced may not be triggered and prejudicial attitudes will become apparent. In other words, when they are not reminded or pressured by situational cues to avoid prejudice, White people often let down their guard and demonstrate bias. Support for this theory has been provided by various empirical studies. In a series of laboratory experiments reported by Gaertner and Dovidio, White people who claimed to have a strong egalitarian motivation were nevertheless quicker to associate negative personality traits with Blacks and positive personality traits with Whites. These results, which are consistent with the findings of other researchers obtained using a variety of populations and methods, suggest that even Whites who sincerely believe themselves to be nonprejudiced tend to harbor anti-Black sentiment that can influence their behavior (Devine, 1989).

Samuel Sommers and Phoebe Ellsworth, *White Juror Bias: An Investigation of Prejudice Against Black Defendants in the American Courtroom*, 7 Psych. Pub. Pol. and L. 201, 204, 207-209 (2001), attached as **Exhibit "1."**

Simply put, Sommers and Ellsworth's research showed that societal pressure not to be racially biased has internalized people's prejudice to a point that people who believe themselves to be unbiased still tend to harbor "anti-Black sentiment that can influence their behavior." *See id.* When race is not an issue, it is more pervasive in the jury because they are not confronted with their own prejudices. *See id.* It has already been recognized by the U.S. Supreme Court in *Turner v. Murray*, 476 U.S. 28, 29, 106 S. Ct. 1683 (1986), that a line of questioning about racial bias in capital cases is a key element in the attempt to ensure a defendant's right to an impartial jury. The same reasoning applies to parties in civil cases, and all criminal cases for that matter.

1 The research performed by Sommers and Ellsworth confirmed this conclusion, stating that  
2 “asking potential jurors about their racial attitudes may indeed reduce White juror bias, but  
3 through a more indirect route.” See **Exhibit “1,”** at 222.

4 A more close-to-home example for the Court to consider is the case of *Coleman v. Las*  
5 *Vegas Paving*, A-11-633110, tried by Robert Marshall, Esq. and Joseph Troiano, Esq. in 2014.  
6 Mr. Coleman, a black man in his 30s, was severely injured when he was riding his bicycle and a  
7 double-trailer semi-truck turned right, struck him, and left the scene. Trial resulted in a defense  
8 verdict and the court granted a new trial, which is now on appeal. When Mr. Coleman’s counsel  
9 discussed the trial with the jurors after it concluded, one of the jurors told them that a legitimate  
10 concern raised by a white juror was that the black plaintiff would spend money awarded in a  
11 verdict on “Cadillacs” and “gold chains.” It is exactly these types of unfair biases that this  
12 motion is intended to prevent.

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15 The jury in this matter will be responsible for determining the value of Nikhelais’ life,  
16 among other determinations. This makes the value of a black person’s life versus a white  
17 person’s life, and whether prospective jurors value their lives differently, a highly relevant issue  
18 in this case. If Plaintiff is not allowed to explore the race issue, she may wind up with a jury that  
19 values her child’s life less simply because she and her son are black.  
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IV.

**PRESENT DAY EVIDENCE OF RACIAL PREJUDGMENT**

Possibly the most prevalent exemplification of present day racial bias is shown in the #BlackLivesMatter movement. The #BlackLivesMatter movement is the current reaction to racial prejudice in America, and shows this Court the necessity of Plaintiffs’ request.<sup>1</sup> It is a call to action in response to racism against black people and the marginalization of them that permeates our society. See “A HerStory of the #BlackLivesMatter Movement,” at <http://blacklivesmatter.com/herstory/>; “About the #BlackLivesMatter Network,” at <http://blacklivesmatter.com/about/>. After decades of oppression, it is a movement to affirm the lives of black people and establish that they are equal to every other person. *Id.*; see also, “Guiding Principles,” <http://blacklivesmatter.com/guiding-principles/>. It is not a movement of “All Lives Matter” or “Our Lives Matter;” it is specific to black lives and the undeniable way black people have been, and still are, treated differently from other people:

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<sup>1</sup> “This is Not a Moment, but a Movement.” This is the goal of #BlackLivesMatter, which three courageous black women created in 2012 after the person accused of Trayvon Martin’s murder, George Zimmerman, was acquitted, and deceased 17-year old Trayvon was post-humously placed on trial for his own murder. See <http://blacklivesmatter.com/herstory/>; <http://blacklivesmatter.com/about/>. The movement spread across the country as the hashtag spread through social media; generous people donated their time to expand it beyond only a hashtag; and people across the country took the message to the streets and conference rooms. *Id.* The movement gained national awareness after the 2014 deaths of two unarmed African Americans due to unnecessary police violence: teenager Michael Brown in Ferguson, Missouri and 43-year-old Eric Garner in New York City. See [https://en.wikipedia.org/wiki/Black\\_Lives\\_Matter](https://en.wikipedia.org/wiki/Black_Lives_Matter). In both cases the grand jury did not indict the officers and no charges were brought, and stirred protests and political unrest that have continued in 2015 in light of the deaths of Tamir Rice, Eric Harris, and Walter Scott. *Id.* The movement reached an all time high after Freddie Gray sustained a spinal cord injury in the back of a police vehicle and subsequently fell into a coma and died, inciting the 2015 Baltimore protests. See “6 Baltimore Police Officers Charged in Freddie Gray Death,” Alan Blinder and Richard Pérez-Peña, <http://www.nytimes.com/2015/05/02/us/freddie-gray-autopsy-report-given-to-baltimore-prosecutors.html? r=1>. On May 1, 2015, Gray's death was ruled to be a homicide and legal charges were issued against the six officers involved in the incident, including that of second-degree murder. *Id.* These charges signaled that people were starting to recognize the larger scale problem and institute change.



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. . . If you adapt Black Lives Matter, use the opportunity to talk about its inception and political framing. Lift up Black lives as an opportunity to connect struggles across race, class, gender, nationality, sexuality and disability.

And, perhaps more importantly, when Black people cry out in defense of our lives, which are uniquely, systematically, and savagely targeted by the state, we are asking you, our family, to stand with us in affirming Black lives. Not just all lives. Black lives. Please do not change the conversation by talking about how your life matters, too. It does, but we need less watered down unity and a more active solidarities with us, Black people, unwaveringly, in defense of our humanity. Our collective futures depend on it.

*See* “A HerStory of the #BlackLivesMatter Movement,” at <http://blacklivesmatter.com/herstory/>.

This movement reveals the urgency and necessity for affirmation that Nyiesha is afforded a racially unbiased jury.

Research in 2011 showed that when white people were shown a picture of a white person in pain, they reacted differently than they did when the person was black. *See* Trawalter S., Hoffman K.M., Waytz A., “Racial Bias in Perceptions of Others’ Pain” (2012), at <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0048546>, attached as **Exhibit**

“2.” White people actually believed that black people feel less pain. *Id.* at 1. Six (6) different experiences were conducted to test whether white people think blacks feel less pain than they do:

Experiment 1: tested whether whites assume that black people feel less pain than do white people given various pain situations. The results showed a difference in the way people treat a black vs. a white target, but the results showed the difference in pain perception was not a result of racial prejudice per se. *Id.* at 2-4.

Experiment 2: replicated experiment 1, but with black participants. The findings were significantly lower for a black vs. a white target. These findings suggest that this bias is not rooted solely in racial prejudice or intergroup dynamics. *Id.* at 4.

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Experiment 3: replicated experiments 1 and 2, but with registered nurses and nursing students to attempt to shed light on racial disparities in healthcare. Results concluded nurses and nursing students also assumed that blacks feel less pain than whites. *Id.* at 4.

Experiment 4: created black and white morphed faces to determine if people while looking at the same target person, would assume the target would feel less pain when the target was labeled black vs. white. Results concluded the bias seems to be race-related. *Id.* at 4-5.

Experiment 5: tested psychological processes that underlie bias to see if the pain of lower-status individuals might be systematically underestimated because people assume that individuals who have had a life full of adversity are tough by necessity, and those who have had a privileged life are more frail. Participants assumed that black target was less privileged and faced more hardship than the white target. *Id.* at 5.

Experiment 6: tested whether giving participants information about the status of the target person might undo the racial bias. The people in the same status condition were comparable to the means of participates in the lower status condition. *Id.* at 5-6.

The experiments demonstrated that people think that black people feel less pain than do white people. *Id.* at 7. This finding has important implications for understanding and reducing racial bias, and sheds new light on well-documented racial biases. *Id.*

In sum, the present work finds that people assume that, relative to Whites, Blacks feel less pain because they have faced more hardship. At first blush, this assumption seems innocuous, even complimentary. It acknowledges the hardship Black people have faced and glorifies their strength and resilience. Nonetheless, this assumption leads to racial bias and potentially disastrous outcomes (e.g., condoning policy brutality against Blacks, underestimating and undertreating Black patients' pain). Therein lies the problem.

*Id.* at 7.

1            “[I]f we can see that people generally assume that black people feel less pain, you can  
 2 imagine all of the different social problems that this explains. One area is healthcare, but it's also  
 3 the criminal justice system. We know that race and empathy impact jury decisions, and we know  
 4 that black defendants receive harsher sentences for the same crimes.” See “Study: Whites Think  
 5 Black            People            Feel            Less            Pain,”            7/11/13,  
 6 <http://www.npr.org/templates/story/story.php?storyId=201128359>. Healthcare is especially  
 7 important in the context of the instant case, which concerns sub-standard medical care provided  
 8 to Nikhelais, a black 8-year-old boy and the experience of Nyiesha, his black mother.  
 9

10            Many studies show this difference in pain perception and that affects the healthcare  
 11 received by white people versus people of other races. The study “Racism and the Empathy for  
 12 Pain in Our Skin” sought evidence that the reaction to other people’s pain is triggered by an  
 13 automatic, physiological reaction, and it depends on the race of the person to determine if the  
 14 pain perceived generates a weaker or stronger reaction to pain. See Matteo Forgiarini, Marcello  
 15 Gallucci, Angelo Maravita, 5/23/11, “Racism and the Empathy for Pain in Our Skin,” at  
 16 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3108582/>, attached as **Exhibit “3,”** at 1. “[T]he  
 17 extent to which Caucasian observers share the pain experience of other people is affected by the  
 18 race of the person in pain.” *Id.* at 4. “Our data suggest that implicit and uncontrolled cognitive  
 19 mechanisms lead Caucasians to reduce the automatic sharing of pain experience with African  
 20 conspecifics at an automatic, early level of stimulus processing.” *Id.* at 4. The study focused on  
 21 the psychological aspects of why white people may think black people or people of another race  
 22 may feel less pain. *Id.* “[O]ur findings indicate that even if we are not aware, our body and our  
 23 mind use internalized knowledge to address reactions and activities they engage to deal with  
 24 social and physical world.” *Id.* at 6.  
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1           Indeed, children as young as 7, and definitely by age 10, begin to believe black children  
 2 feel less pain than white children. *See* Samarrai, Fariss, “Study: Racial Bias in Pain Perception  
 3 Appears Among Children as Young as 7,” 2/27/14, at [https://news.virginia.edu/content/study-  
 4 racial-bias-pain-perception-appears-among-children-young-7](https://news.virginia.edu/content/study-racial-bias-pain-perception-appears-among-children-young-7). This study concludes that  
 5 although parents find the idea of discussing race with their children at such a young age  
 6 uncomfortable, it needs to be done at an early age to prevent such bias. *Id.* The reasoning goes  
 7 back to believing black people have endured more hardship in their life, and therefore, are  
 8 impervious to pain. *Id.* Much like parents being uncomfortable with the idea of discussing race  
 9 with their children, this Court may be uncomfortable addressing race issues with the jury.  
 10 However, the studies show that doing so will likely have a positive effect on curbing racial bias  
 11 in the courtroom, as well as shed light on jurors who should not be on this jury.  
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 14           There are numerous other studies that reveal racial bias issues in the American public that  
 15 Plaintiff will not present herein to avoid inundating the Court.  
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V.

**THE DEATH OF A CHILD**

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 19           Plaintiff Nyiesha Costa lost her son, Nikhelais Costa, to medical malpractice. On May  
 20 14, 2010, Nyiesha took 8-year-old Nikhelais to Nevada Imaging Centers for an MRI scan.  
 21 Nikhelais was anesthetized for the procedure, and following the MRI, Nikhelais was taken to a  
 22 recovery room. Nurses at Nevada Imaging Center gave Nikhelais juice and crackers and  
 23 discharged him home. Shortly thereafter, Nikhelais experienced complete airway obstruction,  
 24 respiratory distress, and vomited. Once Nikhelais regained consciousness, medical staff told  
 25 Nyiesha that emergency response teams would transport Nikhelais to the hospital.  
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1           Nikhelais was then taken to Summerlin Hospital Medical Center. Medical records  
2 provided by the hospital show that Nikhelais was admitted for treatment of aspiration pneumonia  
3 and started on Morphine and Midazolam sedatives, which were continuously infused into his  
4 body through a central intravenous line. On May 14, 2010, the Morphine and Midazolam drips  
5 were started at 5.4 mg per hour. By May 17, 2010, the Midazolam drip had been increased to  
6 16.2 mg per hour. By May 22, 2010, the Morphine and Midazolam drips were increased to 28.4  
7 mg per hour and Nikhelais was also on Dexamedetomidine. By May 24, 2010, the Morphine and  
8 Midazolam drips were increased to 37.5 mg per hour. Despite these large dosages of sedation, a  
9 fourth sedative, Chloral Hydrated was added at the maximum dosage. Medical records show  
10 that on May 25, 2010, the nurses at Summerlin Hospital started a new Morphine drip at twice the  
11 prescribed amount, resulting in Nikhelais receiving more than 75 mg per hour of morphine.

12           Nikhelais tragically died on May 25, 2010 due to an acute lung injury as a consequence  
13 of anesthetic drug reaction. *See* Autopsy Report as **Exhibit “4.”**

## VI.

### **PROGRESSING BEYOND RACISM IN THE COURTOOM**

14           Over the last several decades, this Country has advanced laws to address racial bias in the  
15 courtroom. Plaintiff asks this Court to apply these laws to allow her to ferret out racial  
16 prejudices of prospective jurors.

17           The United States Supreme Court has recognized the fundamental importance of  
18 empanelling a fair and impartial jury, stating: “[i]t is difficult to conceive of a more effective  
19 obstruction to the judicial process than a juror who has prejudged the case.” *In re Michael*, 326,  
20 U.S. 224, 228 (1945). The purpose of voir dire is two-fold: First, to facilitate the identification  
21 and removal of potential jurors “who, because of bias or prejudice, cannot serve as fair and  
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1 impartial jurors,” and would be subject to a challenge for cause. *Silver State v. Shelley*, 105 Nev.  
 2 309 (1989); *see also*, Nev. Rev. Stat. 16.050(f)-(g). Second, for trial counsel to gather  
 3 information for an “intelligent exercise of peremptory challenges.” *Whitlock v. Salmon*, 104  
 4 Nev. 24, 26 (1988); *See also Mu'Min v. Virginia*, 500 U.S. 415, 431 (U.S. 1991).

5  
 6 Among other grounds, a prospective juror may be challenged for cause for:

7 . . . .

8 (f) Having formed or expressed an unqualified opinion or belief as to the merits of  
 the action, or the main question involved therein . . . .

9 (g) The existence of a state of mind in the juror evincing enmity against or bias to  
 either party.

10 Nev. Rev. Stat. 16.050(1).

11 Grounds to strike a prospective juror for cause is when he/she expresses a potentially  
 12 disqualifying opinion or bias, and is inconsistent in his/her responses regarding that  
 13 preconception upon further inquiry. *Jitnan v. Oliver*, 127 Nev. \_\_\_, 254 P.3d 623, 625 (2011).

14 The district court has broad discretion regarding challenges for cause because it is in the position  
 15 to make factual determinations and observations of a prospective juror’s demeanor. *Id.* It is for  
 16 this same reason that trial counsel is allowed wide latitude in conducting voir dire:  
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18 Usually, trial counsel are more familiar with the facts and nuances of a case  
 19 and the personalities involved than the trial judge. Therefore, they are often  
 20 more able to probe delicate areas in which prejudice may exist or pursue  
 21 answers that reveal a possibility of prejudice. Moreover, while we do not  
 22 doubt the ability of trial judges to conduct voir dire, there is concern that on  
 23 occasion jurors may be less candid when responding with personal  
 24 disclosures to a presiding judicial officer. Finally, many trial attorneys  
 25 develop a sense of discernment from participation in voir dire that often  
 26 reveals favor or antagonism among prospective jurors. The likelihood of  
 27 perceiving such attitudes is greatly attenuated by a lack of dialogue between  
 counsel and the individuals who may ultimately judge the merits of the  
 28 case. In that regard, we expressly disapprove of any language or inferences  
 in *Frame* that tend to minify the importance of counsel’s voir dire as a  
 source of enlightenment in the intelligent exercise of peremptory  
 challenges.

1 *Whitlock v. Salmon*, 104 Nev. 24, 28 (1988).

2       The relevant inquiry in determining whether a prospective juror should be removed for  
 3 cause focuses on whether the juror’s views could substantially impair performance of his duties  
 4 as a juror in accordance with the jury instructions. *Id.* at 628-29 (citing *Weber v. State*, 121 Nev.  
 5 554, 580 (2005); *Leonard v. State*, 117 Nev. 53, 65 (2001); *Wainwright v. Witt*, 469 U.S. 412,  
 6 424, 105 S. Ct. 844 (1985)). The record of a prospective juror’s responses to questions must be  
 7 examined as a whole to determine whether he/she has preconceived opinions or biases about the  
 8 case that he/she can, or cannot, lay aside in order to render a verdict based on the evidence. *Id.*  
 9 at 629 (citing *Blake v. State*, 121 Nev. 779, 795 (2005); *Irvin v. Dowd*, 366 U.S. 717, 723, 81 S.  
 10 Ct. 1639 (1961)). Any doubt about a juror’s bias should be weighed in favor of dismissing a  
 11 juror, rather than rehabilitating him, in order to remove even the possibility of bias or prejudice  
 12 infecting the deliberations. *Walls v. Kim*, 549 S.E.2d 797, 799, 250 Ga. App. 259, 260 (Ga.  
 13 2001), *aff’d*, *Kim v. Walls*, 275 Ga. 177, 178, 563 S.E.2d 847, 849 (2002) (“If error is to be  
 14 committed, let it be in favor of the absolute impartiality and purity of the jurors”). As former  
 15 U.S. Supreme Court Chief Justice Hughes observed, “Impartiality is not a technical conception.  
 16 It is a state of mind.” *Irvin*, 366 U.S. at 724, 81 S. Ct. at 1643 (citing *United States v. Wood*, 299  
 17 U.S. 123, 145 57 S. Ct. 177, 815 (1936)).

18       There is no way for Plaintiff’s counsel to effectively determine the peremptory  
 19 challenges without knowing the appropriate racially-biased cause challenges, thereby obviating a  
 20 main purpose of voir dire. This Motion seeks to eliminate biased opinions who may not believe  
 21 that Nyiesha’s son’s black life is as valuable as an 8-year-old white boy’s life, and to gather  
 22 information about possible biases that may not be expressly voiced during voir dire in order to  
 23 intelligently exercise peremptory challenges.

VII.

**PROPOSED QUESTIONS TO INSTITUTE FAIRNESS IN VOIR DIRE**

Plaintiff believes that these questions first should be presented in the jury questionnaire. The panel is more likely to respond truthfully, as they are not answering these sensitive questions in front of others panel members. Plaintiff proposes the following questions be added to the jury questionnaire:

- (1) Do you have any bias against black people?
- (2) Do you have any bias against mixed race coupling?
- (3) Do you have any bias against mixed race children?
- (4) Do you have knowledge of the #BlackLivesMatter movement?
- (5) What are your feelings about the #BlackLivesMatter movement?
- (6) Do you feel that a black person endures less pain than a white person when in the same situation? If so, why?
- (7) Have you ever been a member of a racially biased group or organization? If so, please set forth name(s).

Plaintiff also requests permission to question the venire, notwithstanding the panel members' responses, regarding race. The questions will focus on their feelings about race, equality, and the value of life.

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VIII.

CONCLUSION

“You never really understand a person until you consider things from his point of view. . . until you climb inside of his skin and walk around in it.”

Lee, Harper, To Kill a Mockingbird, 1960, p. 220 (emphasis added).

It has been too long that this issue has been left unaddressed in the courtroom, while we put our heads in the sand and hope for the best from the jury we have selected. It is time to move forward, toward a time where the color of one's skin does not determine the value of a person's life.

Plaintiff brings this Motion to specifically address this pervasive inequality and to affirm the equality of her son's life.

Dated this 9th day of October, 2015.

Respectfully submitted,  
**EGLET PRINCE**

/s/ Robert T. Eglet  
ROBERT T. EGLET, ESQ.  
Nevada Bar No.: 3402  
DENNIS M. PRINCE, ESQ.  
Nevada Bar No. 5092  
TRACY A. EGLET, ESQ.  
Nevada Bar No. 6419  
DANIELLE TARMU, ESQ.  
Nevada Bar No. 11727  
**EGLET PRINCE**  
400 South 7<sup>th</sup> Street, Box 1, Ste. 400  
Las Vegas, Nevada 89101  
Attorneys for Plaintiff

**CERTIFICATE OF SERVICE**

Pursuant to NRCP 5(b), I certify that I am an employee of EGLET PRINCE, and that on October 9th, 2015, I caused the foregoing document entitled **PLAINTIFF’S MOTION TO AFFIRM BLACK LIVES MATTER** to be served upon those persons designated by the parties in the E-Service Master List for the above-referenced matter in the Eighth Judicial District Court eFiling System in accordance with the mandatory electronic service requirements of Administrative Order 14-2 and the Nevada Electronic Filing and Conversion Rules.

KIM I. MANDELBAUM, ESQ.  
**MANDELBAUM, ELLERTON & ASSOCIATES**  
2012 Hamilton Lane  
Las Vegas, NV 89106  
*Attorneys for Defendants, Thomas Ross Tetzlaff, M.D.,  
Brian Thong Vovan, M.D., Barry Stephen Frank, M.D.,  
Gioia & Associates dba Pediatric Acute Care aka Children’s Acute Care aka Children’s Acute  
Care, Inc.*

KATHERINE L. TURPEN, ESQ.  
**JOHN H. COTTON & ASSOCIATES, LTD.**  
7900 West Sahara Avenue, Suite 200  
Las Vegas, NV 89101  
*Attorneys for Defendant, CHW Nevada Imaging Company, LLC. d/b/a Nevada Imaging Centers*

KENNETH M. WEBSTER, ESQ.  
**HALL PRANGLE & SCHOONVELD, LLC.**  
1160 N. Town Center Drive, #200  
Las Vegas, NV 89144  
*Attorneys for Defendant, Summerlin Hospital Medical Center*

JILL M. CHASE, ESQ.  
**LAW OFFICES OF ARTHUR W. TUVERSON**  
7201 W. Lake Mead Blvd., #570  
Las Vegas, NV 89128  
*Attorneys for Defendants, Yu Tan, M.D., PC; Yu Tian, M.C.*

/s/ Brittney Glover  
An Employee of Eglet Prince

# **EXHIBIT “1”**

## WHITE JUROR BIAS An Investigation of Prejudice Against Black Defendants in the American Courtroom

Samuel R. Sommers and Phoebe C. Ellsworth  
University of Michigan

Racial prejudice in the courtroom is examined through a historical sketch of racism in the legal system, a review of psychological research on White juror bias, and a study investigating White mock jurors' judgments of a fictional trial summary. The central hypothesis is that salient racial issues at trial activate the normative racial attitudes held by White jurors. In previous eras, these racial norms encouraged overtly anti-Black prejudice. But in modern America, many Whites embrace an egalitarian value system and try to behave in an appropriately nonprejudiced manner when race is salient. Therefore, contrary to the intuition of many scholars and researchers, contemporary White jurors are more likely to demonstrate racial bias against a Black defendant in interracial trials without blatantly racial issues. Empirical data suggest that this pattern of bias is not limited to one type of crime or one type of racial issue. Practical implications and future research directions are considered.

In our courts, when it's a white man's word against a black man's, the white man always wins. They're ugly, but those are the facts of life . . . The one place where a man ought to get a square deal is a courtroom, be he any color of the rainbow, but people have a way of carrying their resentments right into a jury box. (Lee, 1960, p. 220)

This quotation, from Harper Lee's (1960) *To Kill a Mockingbird*, describes how American courtrooms were influenced by the pervasive racial prejudice of the 1930s. Racial bias in the modern legal system may be less blatant than it was in Atticus Finch's Alabama, but the underlying problem of racism in the courts still exists. Whereas in previous eras the prejudicial treatment of Black defendants was attributable to a multitude of factors, including statutory inequality and the racist attitudes of trial and appellate judges, bias in contemporary criminal trials persists in the absence of overt legislative or judicial discrimination. Accordingly, recent investigations of prejudice in the courtroom have typically focused on the bias demonstrated by jurors (King, 1993; Skolnick & Shaw, 1997). As *To Kill a Mockingbird* (Lee, 1960) suggested 40 years ago, any attempt to examine White juror bias must also take into account the nature of racial norms in White society.

Of course, research on prejudice in the legal system has examined racial

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Samuel R. Sommers, Department of Psychology, University of Michigan; Phoebe C. Ellsworth, Department of Psychology and School of Law, University of Michigan.

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Correspondence concerning this article should be addressed to Samuel R. Sommers, 3225 East Hall, Social Psychology, University of Michigan, Ann Arbor, Michigan 48109–1109. Electronic mail may be sent to [ssommers@umich.edu](mailto:ssommers@umich.edu).

biases other than those demonstrated by jurors (e.g., discrepancies in arrests, indictments, and plea bargaining). For a more general discussion of the impact of the standards, values, and attitudes of North American society on the criminal justice system as a whole, and on the law itself, see Robinson and Darley (1995). The focus of this article, however, is racial bias demonstrated by White jurors.

The decision to focus on White jurors was made for several reasons. As the historical section of this article conveys, Black defendants have suffered a long history of racial injustice at the hands of White judges and juries. As the review of psychological research demonstrates, in psychology there is a substantial body of theory and research on prejudice against minority groups and on White Americans' racial bias against Black Americans in particular. By comparison, minority group prejudice against the majority has received almost no theoretical or empirical attention, and there is little reason to believe that the same psychological processes are involved.

Furthermore, given that Whites are the dominant group in the United States, both in number and in power, and that criminal defendants in this country continue to be disproportionately non-White, White juror bias is more consequential and dangerous than bias demonstrated by Black jurors or jurors of other minority groups. In most jurisdictions, juries with a majority of White people are the rule, and all-White juries are not uncommon (Bowers, Steiner, & Sandys, *in press*). On most juries, the final verdict reflects the views of the predeliberation majority. The pervasive and deleterious effects of White juror bias, combined with the wealth of existing research and theory about White juror performance, led to the present focus on White jurors.

At the heart of this analysis is the contention that salient racial issues in a trial activate the normative racial attitudes held by White jurors. This appears to be true today just as it was before the Civil War. Of course, the actual behavior of White jurors has changed considerably over the past two centuries. Although the archival data are mixed (Hymes, Leinart, Rowe, & Rogers, 1993; Sunnafrank & Fontes, 1983), they suggest that contemporary discrepancies in conviction rates and sentencing for White and Black defendants are smaller than they were earlier this century. These changes can be accounted for, in large part, by two related social developments. First, racial norms in society have shifted dramatically. Less than a century ago, anti-Black sentiment was accepted (and expected) among Whites, and the overtly prejudicial racial norms activated among jurors in racially-charged cases were not considered problematic. Theories about modern racial mores, however, assert that today many Whites strive to maintain a nonprejudiced appearance even though they still possess stereotypical beliefs and attitudes (Devine, 1989; Gaertner & Dovidio, 1986). Racial norms continue to influence juror decisions, but the norms themselves have changed over time.

Second, as Whites and Blacks have achieved relatively equal status (at least in statutory terms), race has become a much more complex social issue. In the 19th century, interactions between Whites and Blacks were inevitably framed by the racial issues made chronically salient by laws, openly-held prejudicial attitudes, and discriminatory practices. The explicit, pervasive nature of racial prejudice likely rendered race a salient issue whenever Whites made judgments about Blacks. Accordingly, race was viewed as a relevant issue in almost all trials of Black defendants (Kennedy, 1997). Today, racial issues still influence many

interracial interactions, but increased contact between the races and a more heterogeneous populace have made for more frequent interracial interactions in which racial issues are not salient (Blum, 1984; Ickes, 1984). In the courtroom setting, White jurors no longer perceive all trials involving Black defendants as necessarily racially charged (Myers, 1980; Sommers & Ellsworth, 2000). For example, the trial of a Black defendant charged with robbery might be relatively free of racial undertones unless his attorney attempts to depict the police as racist or the publicity surrounding the case as biased. Several decades ago, however, the prosecutor in such a case doubtless would have appealed to the anti-Black sentiments of White jurors (Kennedy, 1997). Even without such an attorney strategy, White jurors certainly would have seen the race of the defendant as relevant or even essential evidence.

Some researchers have carried the argument that racial norms influence juror decisions to the extreme by suggesting that changes in the racial landscape of the U.S. have eliminated prejudice against Black defendants (Reynolds, 1996), but many of these claims have been challenged on methodological and theoretical grounds (Ellsworth & Reifman, in press; Marder, 1999; Parloff, 1997). Furthermore, archival and empirical data indicate that absolute statements of juror colorblindness are too good to be true; the race of a defendant still influences the decisions of many criminal juries (Baldus, Woodworth, & Pulaski, 1990; Bowers et al., in press; Gross & Mauro, 1989; Guinther, 1988; Lynch & Haney, 2000). Other legal scholars have recognized that White juror bias is often influenced by the specific racial issues involved in a given trial (Hans & Vidmar, 1986; King, 1993). Most of these researchers suggest that, unlike jurors of previous eras who discriminated against almost all Black defendants, today's White jurors are likely to demonstrate prejudice primarily in cases where race is a salient issue: "The problem of the effect of racial composition on a jury and its verdict is most noticeable when the trial involves a blatantly racial issue" (Fukurai, Butler, & Krooth, 1993, p. 5).

The central hypothesis of the present investigation, however, is that the opposite is true: Run-of-the-mill trials of Black defendants in which racial issues are not obvious are more likely to elicit prejudicial responses from Whites. Societal norms about racial attitudes still have a profound effect on White jurors' judgments of Black defendants in racially-charged cases. Today, however, many Whites embrace an egalitarian value system and a desire to appear nonprejudiced. As a result, salient racial issues in a trial are likely to remind White jurors that they should avoid prejudice, and these jurors will adjust their judgments of Black defendants accordingly. But, when race is not salient in a trial, contemporary norms of egalitarianism are not necessarily triggered. In these cases, Whites will be more likely to render judgments tainted by the racial stereotypes and prejudice that linger in the consciousness of even the least overtly prejudiced of individuals (Devine, 1989; Gaertner & Dovidio, 1986).

This article considers this hypothesis about White juror bias from multiple perspectives. The first section documents the blatant and pervasive influence of racial norms on courtroom decisions in the premodern era. This brief historical review sets the stage for a social psychological examination of contemporary juror bias, which is characterized by White jurors with conflicted racial attitudes and trials that differ in the extent to which racial issues are emphasized. Next, an

empirical study of White mock jurors allows for the generalization of the present hypothesis beyond the contexts previously studied. Finally, the results of this study are discussed in terms of implications for the legal system and future directions for researchers of racial bias in the courtroom.

### Historical Review of Prejudice in the Legal System

A historical look at prejudice in the legal system suggests two trends. First, statutes enacted during Reconstruction in the attempt to eliminate racial discrimination in the legal system were often met with resistance and defiance by Whites. Second, for the past 150 years the U.S. Supreme Court has consistently hesitated to directly confront the issue of prejudice in the courtroom. In recent decades, however, racial attitudes in American society have become less openly prejudicial, and even the Supreme Court seems to have become more sensitive to racism in the legal system. It is this gradual shift in many Whites' racial norms, rather than the immediate influence of federal legislation or higher court intervention, which is largely responsible for changes in the nature of juror bias over the years.

Before the Civil War, the overtly racist attitudes of White Americans were reflected in discriminatory penal codes. Several jurisdictions criminalized a wide array of mundane activities for slaves to make sure that Blacks were perpetually aware of their inferior status in society (Coleman, 1996; *Luke v. State*, 1853). As Kennedy (1997) describes, behaviors such as smoking in public, walking with a cane, and defending oneself against assault were often illegal for slaves but not for Whites. Punishments also differed for Blacks and Whites (Bowers, 1984). In pre-Civil War Virginia, for example, over 70 crimes were punishable by death if the perpetrator was Black, compared with only one for Whites (Kennedy, 1997). Explicit racism in the criminal justice system during this era makes it difficult to separate the issue of juror bias from the more general institutional racism epitomized by laws and judges of the period.

Reconstruction marked the departure of federal law from the entrenched racial prejudice of many Whites, as the Civil Rights Act of 1866 and the 14th Amendment required states to end statutory discrimination based upon race, color, or personal history of slavery (Coleman, 1996; Delaney, 1998). With these first legislative attempts to mandate racial equality, many White politicians, judges, and jurors found themselves in the novel position of holding racial attitudes upon which they could not constitutionally act. This tension between the law that governed the courts and the prejudices of society at large created a recurring conflict in the legal system over the next century. Accordingly, the nature of racial bias in the courtroom during Reconstruction and beyond is illuminated by the ways in which legislators, judges, and juries of this era attempted to circumvent the 14th Amendment, as well as by the measures taken, and not taken, by higher courts to combat the prejudicial tendencies of those who rendered verdicts and passed sentences in criminal trials.

One way that the pervasiveness of racism in society continued to influence the legal system was the tendency of many trial judges to go out of their way to allow differential treatment of White and Black defendants without violating the letter of the law. *Dorsey v. State* (1899) provides an illustrative example. In this case, a Black defendant charged with rape claimed that he was only attempting to

persuade a White woman to consent to intercourse. The trial judge instructed the jury that the defendant's race could be taken into account to refute this claim, and the jury was apparently happy to oblige. Georgia's Supreme Court upheld the guilty verdict and ruled that the defendant's race was relevant to the determination of whether or not he had truly been attempting to obtain consent. As Kennedy (1997) points out, the trial judge's ruling was literally race-neutral in that the race of a White defendant would have been similarly admissible (though seemingly not persuasive in any way), but the judge's emphasis on the defendant's race in his instructions to the jury clearly demonstrates an attempt to subvert the equality granted by the 14th Amendment.

The state legislature provided a second way in which racial discrimination persevered in the face of federal law intended to eliminate it. "Jim Crow" regulations were designed to maintain White supremacy through constitutional means by prohibiting specific acts and establishing punishments that disproportionately targeted Blacks. For example, vagrancy laws criminalized unemployment, and these laws were primarily enforced against Black defendants (Delaney, 1998). The statutory punishment of disenfranchisement for crimes such as this, combined with laws that made it difficult for ex-slaves to register to vote, enabled Whites to ensure themselves a voting majority and the ability to maintain their control over the legislature in Southern regions with a large percentage of non-White citizens.

The omnipresent threat of lynchings by White mobs was a third way in which the racial attitudes of society could seep into the courtroom. This community-organized vigilante justice had a direct impact upon trial proceedings, as jurors often listened to evidence in the courtroom while angry lynch mobs gathered outside in full view (Radelet, Bedau, & Putnam, 1992). A more ironic example of the direct influence that lynch mobs had on trial proceedings is provided by cases in which defense attorneys argued that their Black clients could not have committed the crime in question because if they had, they would certainly have been lynched before the trial began (Kennedy, 1997).

Most historians and legal scholars agree that federal laws failed to achieve their purpose of eliminating the tendency of White judges and jurors to discriminate against Black defendants. The U.S. Supreme Court, on the other hand, never made a concerted effort to fight racism before the late 20th century. During slavery, rulings such as the infamous *Dred Scott* decision (*Scott v. Sandford*, 1856) reflected and even perpetuated the blatant racism of society. Even after the Civil War, the Court often failed to address the issue of racial bias in the justice system when it had the opportunity to do so. Radelet et al. (1992) describe several specific instances when the Court refused to hear the appeals of innocent defendants who were wrongfully convicted of crimes simply because they were Black. On other occasions when the Court did intervene in trials tainted by prejudice, it typically did so by ruling on nonracial issues in the cases in question.

For example, in 1934, three Black farm workers were convicted of murdering a White man even though the police admitted that they had beaten two of the suspects and hung the third from a tree before they finally obtained a confession. The all-White jury delivered a guilty verdict, despite the lack of other incriminating evidence and the trial judge's instruction that the officers' admission of coercion could be considered in determining the validity of the confessions.



Mississippi's Supreme Court acknowledged that the confessions were not voluntary, but nonetheless affirmed the trial court's decision. The U.S. Supreme Court finally overturned the conviction by citing the 5th Amendment right to withhold self-incriminating information, but the Court did not address the role played by racial prejudice in the verdict (*Brown v. State of Mississippi*, 1936).

Some would argue that the Court's reluctance to directly address discrimination against Black defendants resulted from the Justices' knowledge that they lacked the power to enforce these rulings on a societal level. For example, even if they ordered a new trial for a Black defendant, he was likely to be lynched beforehand or convicted again (Kennedy, 1997). If accurate, this assertion is a profound demonstration of the direct influence of the racial norms of society on even the highest courts in the legal system. But even recently, in a society with far more egalitarian values, the Court has often shied away from directly addressing the issue of juror discrimination when the opportunity to do so was obvious (King, 1993).

Modern cases involving racial prejudice have often focused on the disproportionate application of the death penalty to Black defendants (Gross & Mauro, 1989). In *Coker v. Georgia* (1977) the Court had a clear chance to make a statement against the influence of racism on sentencing. In striking down the death penalty for rape convictions, however, the Court managed to sidestep the issue of racial discrimination that was the original basis for the appeal. In Coker's brief, the claim of racial bias in capital sentencing was supported by data collected by Wolfgang and Reidel (1973), who found that between 1945 and 1965 in 11 Southern states, Black men accused of raping White women were 18 times more likely to be sentenced to death than White defendants. The Court's ruling focused instead on the 8th Amendment issue of whether the death penalty was excessive punishment for the crime of rape, avoiding the question of racial prejudice altogether (Ellsworth, 1988).

In other cases, the Court has not merely overlooked the issue of racism, but has rejected outright compelling evidence of racial bias. In *McCleskey v. Kemp* (1987), a Black man argued that his death sentence for the murder of a police officer violated the 14th Amendment. The petitioner presented the Court with the findings of a carefully-controlled statistical study showing that Black defendants in Georgia were significantly more likely to be sentenced to death than White defendants in aggravated cases, especially when the victim was White (Baldus et al., 1990). Although the Baldus study controlled for over 200 other variables, and found that none of them, alone or in combination, could explain the pattern of racial discrimination, the Court referred to the racial disparity as "unexplained" and affirmed McCleskey's death sentence.

One area in which the Supreme Court has repeatedly addressed the issue of race involves jury pool representation and petit jury selection. The fact that the Court has seen fit to rule on race and jury composition suggests a tacit acceptance of the premise that the racial composition of a jury can affect the verdict it reaches, though this is a conclusion the Court has refused to endorse on several occasions (e.g., *Swain v. Alabama*, 1965). Most of the appeals filed were by Black defendants petitioning on the ground that their rights had been violated by the racial composition of the jury (e.g., *Batson v. Kentucky*, 1986); more recently the Court has begun to frame the issue of racial composition of the jury in terms of

violations of the right of Black Americans to be empaneled as jurors (e.g., *Georgia v. McCollum*, 1992).

As early as the 1880s, the Court ruled against statutes that formally limited jury service to Whites (*Neal v. Delaware*, 1880; *Strauder v. West Virginia*, 1879), but state legislatures often manipulated the qualifications necessary for jury service and voting registration in the attempt to exclude Blacks from juries (Bowers et al., in press). Not until *Norris v. Alabama* (1935) were mere statements of a lack of prejudicial intent in creating a jury pool deemed insufficient to refute a defendant's claim of discrimination. Even today, the guidelines established by the Court seek only to provide a racially-representative jury pool (Alschuler & Deiss, 1994; Fukurai et al., 1993), and a variety of factors (e.g., low rates of voter registration and low response rates to jury summons among Blacks) continue to prevent the attainment of equal representation in jury pools (Cohn & Sherwood, 1999).

For several decades after *Norris v. Alabama* (1935), practitioners of the law could still constitutionally manipulate the racial composition of petit juries through the use of peremptory challenges. In *Swain v. Alabama* (1965) the Court upheld the constitutionality of race-based peremptory challenges, as long as they were not found to be attempts to deprive Blacks of their right to jury service. The Court majority was apparently unswayed by the fact that no Black had served as a criminal juror in the past 15 years in Talladega County, Alabama, even though more than one-quarter of the region's population during that period was Black. It was not until 1986 that this strategy of removing Black jurors with race-based peremptory challenges was ruled unconstitutional (*Batson v. Kentucky*, 1986). And in the wake of *Batson*, today's judges continue to give prosecutors the benefit of the doubt when they offer race-neutral justifications for the exclusion of Blacks from juries (Alschuler & Deiss, 1994; Bowers et al., in press; Raphael & Ungvarsky, 1993).

Nonetheless, the Court's progression from *Swain* (1965) to *Batson* (1986) indicates an increasing awareness of the changing nature of racial prejudice. Whereas its ruling in *Swain* emphasized the absence of direct evidence of "purposeful racial discrimination," in *Batson* the Court went further, acknowledging that a more covert form of racism might influence legal proceedings despite the enactment of "neutral statutes" intended to ensure equal protection. Other recent Supreme Court opinions have also conveyed concern about jurors' "subtle, less consciously held racial attitudes" (*Turner v. Murray*, 1986), as well as the likelihood that "conscious and unconscious racism can affect the way White jurors perceive minority defendants . . . perhaps determining the verdict of guilt or innocence" (*Georgia v. McCollum*, dissenting opinion, J. O'Connor, 1992).

This increased sensitivity of the Supreme Court to racial issues doubtless reflects more widespread change in the racial norms of society and the nature of modern prejudice. Unlike the Reconstruction-era atmosphere that encouraged anti-Black sentiment, today's racial norms condemn racial prejudice and emphasize egalitarianism (Flagg, 1998). But since anti-Black stereotypes and attitudes still persist in modern America, contemporary Whites often find themselves trying to reconcile prejudicial thoughts with egalitarian values. This conflict carries over into the courtroom where the explicit racism of past jurors is no longer a foregone conclusion. This shift in racial norms leads to the hypothesis that White juror bias

is less likely to occur in racially-charged trials than it is in cases without salient racial issues. This hypothesis is examined in the next section by reviewing psychological research on White juror prejudice and the nature of contemporary racial attitudes.

### Psychological Research on White Juror Prejudice

For decades, social psychologists have been interested in juror decision-making and in prejudice, but until recently the two areas were rarely brought together empirically or theoretically. The few experiments that have examined issues of prejudice in juror decisions have yielded inconsistent conclusions. Several studies using mock jurors have shown that when descriptions of the crime are identical, Whites are more likely to vote to convict Black defendants than White defendants (e.g., Foley & Chamblin, 1982; Klein & Creech, 1982) and give longer sentences to Black defendants (e.g., Gray & Ashmore, 1976; Sweeney & Haney, 1992). Other studies have qualified these results, concluding that White mock jurors demonstrate racial prejudice only in the face of incriminating inadmissible evidence against a Black defendant (Johnson, Whitestone, Jackson, & Gatto, 1995), or primarily in the artificial setting of the psychology laboratory where judicial instructions (Pfeifer & Ogloff, 1991) and deliberation (Bernard, 1979; Kerr, Hymes, Anderson, & Weathers, 1995) are typically omitted.

Still other research reveals no evidence of White prejudice at all. In their meta-analysis of 29 studies with over 6,000 participants, Mazzella and Feingold (1994) concluded that Black defendants were no more likely than White defendants to be found guilty (see also McGuire & Bermant, 1977; Skolnick & Shaw, 1997). Other researchers find no consistent evidence of racial prejudice in White jurors' sentencing of Black defendants (e.g., Hagen, 1974; Nickerson, Mayo, & Smith, 1986). McGowen and King (1982) arrived at the surprising conclusion that in some cases, White jurors are more punitive towards White, not Black, defendants. Returning to a consideration of modern racial norms enables a reconciliation of some of these contradictory findings.

Over the past few decades, social psychologists have been faced with the seemingly irreconcilable facts that there has been a decline in Whites' demonstration of overt prejudice and endorsement of explicitly racist beliefs, yet racial minorities continue to experience discrimination on an institutional and personal basis. Many theorists have converged on the similar explanation that White prejudice and racism still exist, but the nature and manifestations of this racial bias have changed (Gaertner & Dovidio, 1986; Kinder & Sears, 1981; McConahay, 1986). This new form of racism has been referred to by a variety of names including *modern racism*, *symbolic racism*, *subtle racism*, and *aversive racism*. Terminology aside, these theories share the common idea that Whites are no longer likely to demonstrate the overt, "red-necked" form of prejudice that was common in this country only a short time ago (Gaertner & Dovidio, 1986). Because racial norms in contemporary America have shifted towards egalitarianism, explicit demonstrations of racism are frowned upon in most communities.

Sadly, Whites' outward acceptance of an egalitarian value system has not led to the end of racial bias. Today, many Whites express their anti-Black sentiment through more subtle, symbolic, or "acceptable" means. Whites' racial attitudes

might manifest themselves through opposition to social policies designed to facilitate equality, such as affirmative action. Whites may also express prejudice through the endorsement of statements such as "Blacks are getting too demanding in their push for equal rights" (Modern Racism Scale, McConahay, 1986). Moreover, theorists have offered predictions about the situational factors likely to lead Whites to express bias. In their theory of aversive racism, Gaertner and Dovidio (1986) suggest that all Americans are aware of anti-Black stereotypes and beliefs by virtue of their birth into a historically racist culture. Many of these Whites embrace egalitarianism and make a conscious effort to behave in a nonprejudiced manner. As long as this egalitarian motivation is activated in these Whites—which occurs when race is made salient in a situation or when normative cues to avoid bias are strong—they are typically successful in avoiding prejudice.

However, in some situations the prejudicial attitudes and beliefs that linger in the consciousness of many Whites do emerge and influence their behavior and judgment. Gaertner and Dovidio (1986) predicted that when race is not salient or normative cues are absent during a social interaction or judgment task, Whites' motivation to appear nonprejudiced may not be triggered and prejudicial attitudes will become apparent. In other words, when they are not reminded or pressured by situational cues to avoid prejudice, White people often let down their guard and demonstrate bias. Support for this theory has been provided by various empirical studies. In a series of laboratory experiments reported by Gaertner and Dovidio, White people who claimed to have a strong egalitarian motivation were nevertheless quicker to associate negative personality traits with Blacks and positive personality traits with Whites. These results, which are consistent with the findings of other researchers obtained using a variety of populations and methods, suggest that even Whites who sincerely believe themselves to be nonprejudiced tend to harbor anti-Black sentiment that can influence their behavior (Devine, 1989).

Experiments in more natural settings have tested the prediction that situational factors influence Whites' expression of racial bias. In one study reported by Gaertner and Dovidio (1986), Black and White experimenters pretended to be stranded motorists and phoned unsuspecting White participants to ask for assistance. Each motorist, whose race was identifiable from his dialect, explained that he was using a pay phone next to the highway because his car had broken down. The motorist stated that he had used his last coin to make this call but must have dialed the wrong number, and he asked if the participant would phone a tow truck on his behalf. White participants belonging to a liberal political party, who presumably had strong egalitarian beliefs, were actually more likely to help the Black motorist than the White motorist after hearing the entire plea. As Gaertner and Dovidio explained, "Failure to offer assistance to a Black person once the necessity for help has been recognized would violate prescriptions for appropriate behavior and could be attributed to racial antipathy" (p. 69). But a substantial percentage of participants hung up on the caller before hearing about his need for assistance, and it was the Black motorist who suffered a disproportionate number of these premature hang ups. Before the motorist voiced his need for help and triggered strong normative pressures against hanging up, Whites were able to discriminate against the Black caller without worrying about appearing racist.

The theory of aversive racism has obvious implications for the investigation

of race in the contemporary courtroom. Gaertner and Dovidio (1986) conducted one relevant study in which the race of a defendant and the presence or absence of inadmissible incriminating evidence was manipulated. In the absence of inadmissible evidence, White mock jurors did not differ in their judgments of the White and Black defendants. When an incriminating statement allegedly made by the defendant was introduced and ruled inadmissible, White mock jurors expressed greater certainty of guilt in the Black defendant version than in the White defendant version of the case. White jurors who heard incriminating hearsay evidence about the Black defendant were able to rationalize their high guilt ratings as resulting from their desire to consider all the relevant trial evidence, not prejudice. Such a nonracial explanation for the influence of this evidence would be plausible but for the finding that mock jurors did not use the same inadmissible evidence against a White defendant. Johnson et al. (1995) reported similar results, suggesting that a nonracial justification allows White mock jurors to make biased decisions without appearing to be prejudiced.

Fein, Morgan, Norton, and Sommers (1997) also obtained findings that were consistent with aversive racism theory in a study investigating the influence of pretrial publicity on mock jurors. In this study, White mock jurors' verdicts in a case involving a Black defendant were influenced by newspaper articles about the defendant that they had read before reading the trial transcript. Mock jurors who were also given information suggesting that the media's treatment of the defendant was racially motivated were not influenced by the negative pretrial publicity. Reminded of the pervasiveness of racism in society and of their own desire to avoid prejudice, White mock jurors rendered unbiased decisions based only on the admissible facts of the case. In general, Gaertner and Dovidio's (1986) characterization of Whites' racial attitudes provides a useful theoretical framework for the present hypothesis that White juror bias is more likely in cases that are not racially charged. When race is an obvious issue at trial, White jurors may be on guard against racial bias. However, in trials without salient racial issues, White jurors may be less likely to monitor their behavior for signs of prejudice, and therefore more likely to render judgments tainted by racial bias.

The results of several mock juror experiments support the first half of this hypothesis—that blatantly racial issues in a trial make White juror bias less likely. Studies using trial scenarios with salient racial issues have often failed to reveal prejudice among White mock jurors. Skolnick and Shaw's (1997) study, for example, found no evidence of White racism in mock jurors' responses to a murder case designed to resemble the criminal trial of O. J. Simpson—the most notoriously race-salient trial in recent U.S. history. An examination of modern racial norms leads to the conclusion that the trial used by Skolnick and Shaw is exactly the type of case likely to elicit White jurors' defenses against the appearance of prejudice. Rather than demonstrating an absence of White bias in the legal system, this study highlights the importance of considering situational factors in investigations of juror bias.

Sommers and Ellsworth (2000, Study 1), consistent with the results of Skolnick and Shaw (1997), found no evidence of White juror bias when they presented mock jurors with five racially-charged written trial summaries. Each of these trials described a different cross-racial crime. For each trial, one version was created with a White defendant and one with a Black defendant, but the facts of

the case remained identical in the two versions. The five incidents were: a college basketball player who allegedly assaulted a teammate after a dispute involving a racial slur; a young man who allegedly robbed a stranded motorist of his wallet and told him to "go back to your own neighborhood"; a law school applicant who allegedly held a secretary hostage because he was frustrated by the program's racial admission policies; a middle-aged man who allegedly slapped his girlfriend in public while making racially-insensitive remarks; and an elderly man who allegedly burned down a church attended by congregants of a different race.

White participants read either the White or Black defendant version of each of these five cases. They were asked to render verdicts and recommend a sentence for the defendant in each case, and they were asked a number of questions about the defendant's personality characteristics and general dangerousness. White mock jurors' responses were not different in the White and Black defendant conditions for any of these dependent measures. These results led Sommers and Ellsworth (2000) to conclude that the plausible assumption that race-salient trials are most likely to elicit White juror prejudice is incorrect, and may in fact be responsible for the apparent dearth of social psychological research into race in the courtroom. Many of the studies that have used racially-charged trial materials may have wound up in researchers' file drawers with null results.

Of course, there are intuitive reasons for the assumption that racially-charged cases lead to juror bias (Fukurai et al., 1993; Hans & Vidmar, 1986; King, 1993). For example, it is easy to imagine scenarios in which a distasteful, racially-motivated crime will lead White jurors to punish a Black defendant severely. But it is also reasonable to assume that White jurors will be similarly punitive towards a White defendant who commits the same unsavory crime, such as the White men in Texas convicted of dragging James Byrd to his death simply because he was Black. If brutal, racially-motivated crimes do indeed lead to harsh verdicts for both White and Black defendants, then the outcomes in these trials are not inconsistent with the present hypothesis.

Others might suggest that there are specific racially-charged crimes that traditionally have elicited bias against Black defendants. An obvious example is a case involving a Black defendant charged with the rape of a White woman (Hymes et al., 1993; Wolfgang & Reidel, 1973). But the historical and cultural baggage attached to a small number of specific crimes is insufficient to refute the more general hypothesis that, on the whole, White juror prejudice against Black defendants is more likely in today's courts when a case is not racially charged.

Further support for this prediction is provided by mock juror studies using trials without blatantly racial issues, which often have produced evidence of White bias. For example, Gray and Ashmore (1976) found that White mock jurors were more punitive towards Black defendants than White defendants in a vehicular manslaughter trial that was race-neutral except for the manipulation of the defendant's race. In a meta-analysis of 19 studies, Sweeney and Haney (1992) attributed their conclusion that White mock jurors tend to discriminate against Black defendants during the sentencing phase of trials to the ambiguous nature of sentencing guidelines. Alluding to aversive racism theory, Sweeney and Haney concluded that "sentencing decisions may provide fertile ground for more modern, subtle forms of racism to operate" (p. 191). Lynch and Haney (2000) drew similar conclusions about the potential for bias in death penalty decisions.

The results of mock juror studies using trials with and without blatantly racial issues offer support for the present hypothesis. But a more rigorous and controlled test requires the experimental manipulation of a trial's racial content within the same study so that judgments of the race-salient and non-race-salient versions can be compared statistically. Sommers and Ellsworth (2000, Study 2) conducted such an experiment. One hundred fifty-six White mock jurors were given a written summary of a domestic assault trial in which the defendant was accused of slapping his girlfriend in a bar and knocking her down. Half of the participants read about a White defendant who slapped his Black girlfriend, and the other half read the same case with a Black defendant who slapped his White girlfriend. The race-salience manipulation in the trial materials involved what the defendant allegedly yelled at his girlfriend before slapping her. In the race-salient condition, the defendant's statement was "you know better than to talk that way about a White (or Black) man in front of his friends," explicitly bringing up the issue of race. In the non-race-salient condition, the defendant's race was identified in the demographic information provided to participants before the trial, but no mention of race occurred at any point during the trial proceedings. The defendant's statement in this version of the trial was modified to read "you know better than to talk that way about a man in front of his friends."

The impact of this one-word manipulation on White mock jurors' perceptions of the trial was statistically significant. In the race-salient condition (when the defendant referred to his race), mock jurors rated the White and Black defendant equally guilty. In the non-race-salient condition (when the defendant did not refer to his race), mock jurors gave higher guilt ratings and longer sentence recommendations to the Black defendant than to the White defendant. The proportion of Whites voting to convict the Black defendant rose from 73% in the race-salient condition to 87% in the non-race-salient condition (see Figure 1 for all cell means).

The influence of the trial's race-salience on mock jurors could be seen in a variety of other measures as well. In the non-race-salient trial, when an egalitarian value system presumably was not activated among White mock jurors, the prosecution case against the Black defendant was rated as stronger than the case against the White defendant. In addition, the defense case presented on behalf of the Black defendant was rated as significantly weaker than the White defendant's defense in this version of the trial. These differences emerged despite the fact that the prosecution and defense cases were identical in the White and Black defendant versions of the trial summary. No such pattern of bias was present in mock jurors' judgments of the race-salient trial.

Furthermore, subtly reminding mock jurors that race might be an issue in the case had a significant influence on White mock jurors' perceptions of the defendant himself. In the non-race-salient condition, White jurors rated the Black defendant as significantly more violent and aggressive than the White defendant. This pattern was reversed for positive personality characteristics; the White defendant was perceived to be more honest and moral than the Black defendant. Mock jurors were also less willing to make excuses for the behavior of the Black defendant. Jurors were more prone to agree that, compared with the White defendant, the Black defendant likely would be arrested for a similar crime in the future, and they were more likely to believe that the Black defendant's behavior

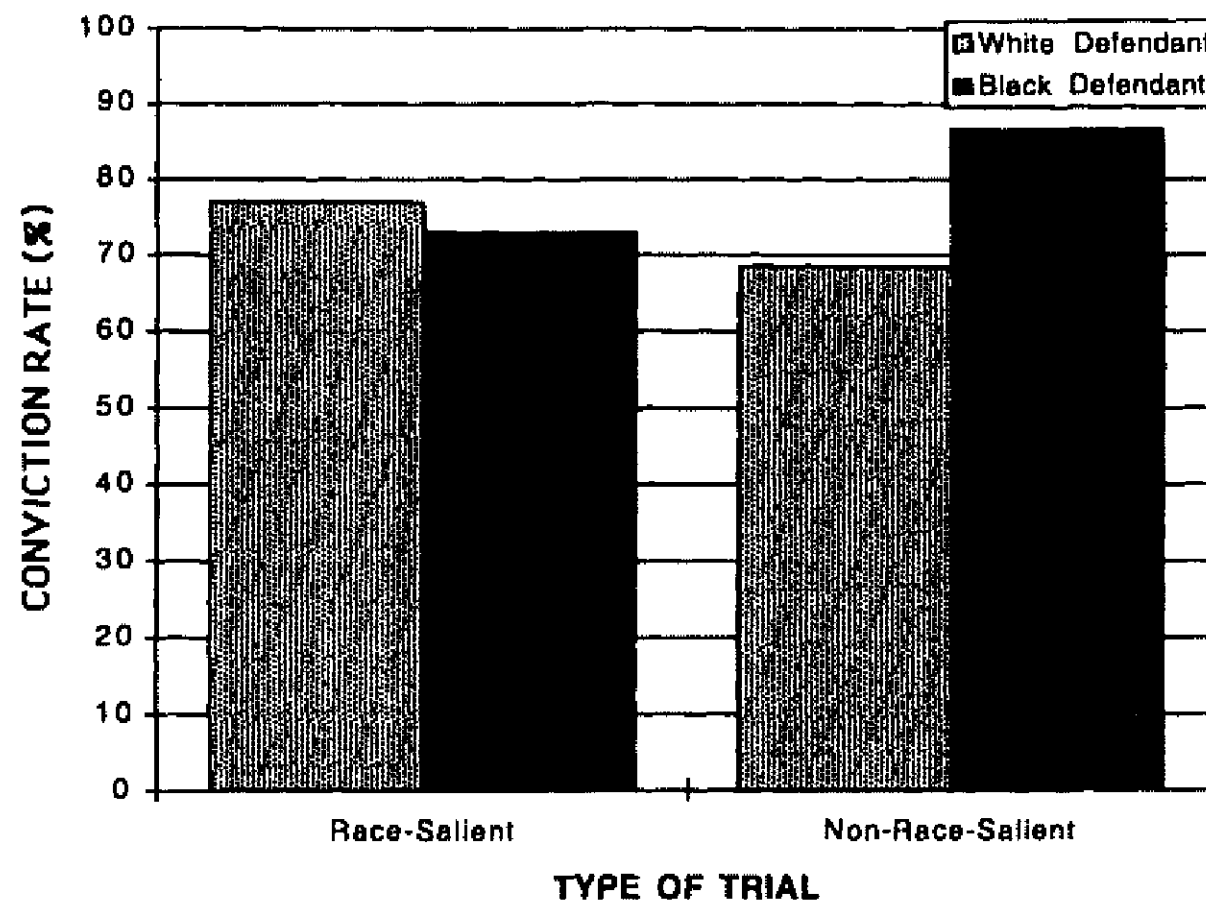


Figure 1. Conviction rates by defendant's race and race-salience of trial in Study 2, Sommers & Ellsworth (2000).

resulted from a criminal personality type. Once again, none of these differences emerged when racial issues in the trial were salient. It is also worth noting that even though the crime in question involved a male accused of abusing a female, no gender differences were found in mock jurors' perceptions of the case.

### The Present Study

The findings summarized above provide initial support for the central hypothesis of this article. However, only one type of crime was used in Sommers and Ellsworth's (2000) Study 2, rendering necessary further research to test the generality of this pattern of bias. Domestic altercations involving partners in interracial relationships might carry with them historical and cultural baggage that have an idiosyncratic influence on White jurors. Such cases might tap into the unique anger Whites have traditionally reserved for Black defendants charged with raping or abusing White women (Radelet et al., 1992; Wolfgang & Reidel, 1973), and they could conjure up images of the O. J. Simpson trial. Therefore, the first goal of the present empirical study is to examine White jurors' judgments of a case outside the realm of domestic assault.

In addition, Sommers and Ellsworth (2000) manipulated race-salience only by means of a statement uttered by the defendant during the incident. There are myriad ways in which race can be made salient during a trial (e.g., attorneys' arguments, witnesses' remarks, the actions and testimony of police officers, judicial instructions, pretrial publicity). The present hypothesis about White juror bias is not contingent upon any one method for making racial issues salient in a trial, and it is therefore essential for the theory that the predicted pattern of results generalizes to more than one race-salience manipulation. The second goal of the



present study is to examine whether or not White juror bias can be influenced by racial trial issues other than statements made by the defendant during the alleged crime.

It is important to note that, with few exceptions (Bernard, 1979; McGuire & Bermant, 1977), the research on racial bias in juror decision-making reviewed in this section was conducted using college students as mock jurors. Various scholars and researchers have weighed in on the question of whether reliance on college participants skews the results of mock juror studies (MacCoun, 1989; Wiener, Habert, Shkodriani, & Staebler, 1991). For example, some data indicate that college students are more lenient and more likely to adhere to legal standards than other adult mock jurors (King, 1993). More directly at issue for the current investigation is the possibility that college students are less likely to demonstrate discrimination than other mock jurors are. Indeed, the egalitarian value system at the core of theories such as aversive racism might be especially strong on the politically correct college campus. The findings of Sweeney and Haney (1992), however, suggest that the influence of race on the decisions of college students does not differ significantly from its effect on other mock jurors. Nonetheless, non-college-student participants were recruited for the present study in the attempt to examine mock juror bias using a more representative sample. Broader issues concerning the universality of an egalitarian value system among White Americans will be revisited in the *Discussion*.

In sum, the purpose of the present study is to continue the investigation into race in the courtroom begun by Sommers and Ellsworth (2000). In Study 1 of that paper, White mock jurors were presented with five racially-charged trial summaries, and they did not demonstrate racial bias in their decisions about the trial or in their ratings of the defendant. The race of the defendant and the race-salience of the trial summary were both manipulated in Study 2, and once again White mock jurors did not demonstrate bias when race was a salient trial issue. When race was not salient, however, White mock jurors were more likely to convict the Black defendant, and they perceived the Black defendant's personality in a more criminally-inclined, negative light. The present study was designed to extend these initial findings to a trial using a different crime and a different race-salience manipulation. In any line of empirical research, systematic replication of the basic findings is necessary, and convergent validity achieved by generalization of the stimulus materials is essential. Consequently, this study is an attempt to increase the real-world applicability of Sommers and Ellsworth's findings and to test the boundary conditions of this article's central hypothesis.

## *Method*

### *Overview*

Mock jurors were presented with the written trial summary of an interracial battery case. Half of the mock jurors read a trial summary about a White defendant and Black victim, and the other half read the same trial summary about a Black defendant and White victim. The racial content of the trial was also varied so that half of the mock jurors read

a race-salient version and half read a non-race-salient version (although they were made aware of the defendant's race in all conditions). Race was made salient in the trial summary through the testimony of a defense witness about the defendant's minority status on his high school basketball team. White jurors were expected to be more likely to discriminate against the Black defendant in the non-race-salient condition than in the race-salient condition.

Before describing the method and results of this study, it is important to address the fact that the alleged victim was always the opposite race of the defendant in the experimental trial summary. This raises the methodological possibility that the victim's race might have influenced mock jurors instead of or in addition to the defendant's race because both the defendant's and victim's race were manipulated simultaneously. An interracial trial summary was used to allow for the race-salience manipulation of defense claims of racial provocation (it would not make sense for a White defendant to claim he was racially provoked by his White teammates). An interracial trial summary was also used in Sommers and Ellsworth (2000, Study 2), where race-salience was manipulated by racial language allegedly used by the defendant during the incident (it would not have made sense for a White defendant to say to a White woman, "you know better than to talk that way about a White man in front of his friends"). Using these designs, it is difficult to separate the effects of the defendant's race and the victim's race on juror performance.

However, the alternative explanation for the reported results—that the victim's race principally influenced jurors in Sommers and Ellsworth (2000)—is theoretically inconsistent with the observed data. This alternative hypothesis would be that White jurors are more lenient towards a defendant who harms or wrongs a Black victim, and are angered by the illegal behavior of a defendant towards a White victim (Baldus et al., 1990; Klein & Creech, 1982). Such a victim-focused increase in White juror punitiveness should be greatest when a White victim's race is the motivation for an assault or is invoked during the commission of a crime. But the opposite pattern of results was found. When testimony in the case used by Sommers and Ellsworth (Study 2) indicated that the Black defendant made racially-charged statements at the victim's expense, White jurors did not demonstrate racial bias. It was the non-race-salient version of these trials that elicited juror bias, consistent with the conclusion that the race of the defendant drove the observed pattern of results in Sommers and Ellsworth.

Other results reported by Sommers and Ellsworth (2000) also indicate that mock jurors' decisions were in fact driven by reactions to the defendant, not reactions to the alleged victim (see Lynch & Haney, 2000, for a similar finding in a mock juror study). In Study 2 (Sommers & Ellsworth, 2000), a series of questions measured participants' perceptions of both the defendant and the victim. As reported above, mock jurors perceived the defendant quite differently depending on his race and the race-salience of the trial; no differences were revealed across conditions in perceptions of the victim. Mock jurors' ratings of the defendant along a variety of personality dimensions were significantly correlated with their verdict and sentence recommendations. Participants who rated the defendant as violent and aggressive were more likely to render a guilty verdict and recommend a longer sentence for the defendant. There was no such relationship between perceptions of the victim's personality and jurors' decisions. These correlational data suggest that the paradigm used in the present study is an effective way of measuring the interactive influence of the race of a defendant and the race-salience of a trial on mock juror decisions. Nonetheless, the relative influence of both a defendant's race and a victim's race on mock jurors has not yet been examined in conjunction with the variable of race-salience, and such an investigation would obviously be informative.

### *Participants and Design*

One hundred ninety-six White participants were approached by a White experimenter in waiting areas of a major international airport. Eighty-eight participants (45%) were female, 107 were male (55%) were male, and 1 (.5%) did not provide gender information. Participants were born in the U.S. and ranged in age from 18–83 years ( $M = 43$ ). More specific questions regarding their eligibility for jury service were not posed. Since a driver's license or equivalent state identification is required for air travel and is also used for jury mailing lists, it is safe to assume that most of the participants recruited were jury eligible. Individuals were asked if they would read and complete a questionnaire about legal attitudes while they waited. Each participant received one version of the trial summary from the  $2 \times 2$  factorial design: *race-salient/White defendant, race-salient/Black defendant, non-race-salient/White defendant, non-race-salient/Black defendant*. The questionnaire instructions emphasized the importance of taking the role of mock juror seriously, and participants were asked to render judgments as if they were actual jurors in a real case.

### *Materials*

The trial summary included demographic information about the defendant and victim at the top of the page. In the trial summary for the White defendant, the following information was provided:

*Defendant:* Matthew Clinton, 6'2", 195 lbs., Caucasian male, 18 years old, student.  
*Victim:* André Barkley, 6'0", 165 lbs., African American male, 16 years old, student.

In the summary for the Black defendant, the following information was provided:

*Defendant:* André Barkley, 6'2", 195 lbs., African American male, 18 years old, student.  
*Victim:* Matthew Clinton, 6'0", 165 lbs., Caucasian male, 16 years old, student.

Additional information about the defendant's height, weight, and age was included to prevent mock jurors from guessing that the study's primary hypotheses involved the race of the defendant. All mock jurors received the demographic information; the race-salience manipulation occurred within the actual trial summary.

The trial summary consisted of two paragraphs describing the prosecution case, two paragraphs describing the defense case, and a paragraph of judicial instructions and criteria for conviction adapted from the California Penal Code. The defendant was a high school basketball player charged with one count of battery with serious bodily injury after an altercation with a teammate in the locker room. The prosecution claimed that the defendant was upset over losing his place in the starting line-up and attacked his replacement. The defense admitted that the defendant confronted his teammate in the locker room, but claimed that when a third player stepped in and tried to restrain him, the defendant panicked and tried to break free and leave the room. According to the defendant, while he was trying to escape, he accidentally made contact with the victim.

In the *race-salient* version of the trial, a defense witness testified that the defendant was one of only two Whites (or Blacks) on the team, and had been the "subject of racial remarks and unfair criticism throughout the season from many of his Black [White] teammates." This was the only mention of the defendant's race in the entire case, other than the demographic information presented earlier. There was no mention of the defendant's race in the trial proceedings in the *non-race-salient* version. Instead, the same defense witness testified that the defendant had only one other friend on the team and had been the "subject of obscene remarks and unfair criticism from many of his teammates." This testimony marked the only difference between the race-salient and non-race-salient conditions.

The questionnaire given to mock jurors consisted of one version of the trial summary, followed by several case-related questions. First, participants were asked to render a verdict by circling either "Not Guilty" or "Guilty." They were asked to rate their confidence in this verdict on a scale ranging from 1 (*not at all confident*) to 9 (*very confident*), and were asked to rate the strength of the prosecution and defense cases on a similar scale of 1 (*not at all strong*) to 9 (*very strong*). Finally, mock jurors were provided with the maximum allowable sentence for the crime of battery with serious bodily injury and were asked to recommend a sentence for the defendant. Nine different sentencing options were available, ranging from no punishment to probation to four years in prison. Mock jurors' responses were converted into a 9-point scale on which higher numbers reflected the increased severity of the sentence.

## Results

Across all four conditions, 74% of the participants recommended a guilty verdict for the defendant. No significant gender differences were found for any of the dependent measures. As in Sommers and Ellsworth (2000, Study 2), White jurors in the present study demonstrated a significantly higher conviction rate for the Black defendant in the non-race-salient condition than in the race-salient condition,  $\chi^2(1, N = 95) = 4.03, p < .05$ . As expected, in the race-salient condition conviction rates for the White defendant (69%) and Black defendant (66%) were comparable. In the non-race-salient condition White jurors were more likely to convict the Black defendant (90%) than the White defendant (70%), and this difference on the dichotomous verdict measure was marginally significant,  $\chi^2(1, N = 96) = 2.97, p < .09$ . This pattern of results emerged throughout the present analyses, as White mock jurors did not discriminate on the basis of race in the race-salient conditions, but did demonstrate racial bias in the non-race-salient conditions. A logistic regression confirmed the significant interaction between the defendant's race and race-salience of the trial on verdict judgments ( $\beta = .38, p < .04$ ), which is depicted graphically in Figure 2.

Participants were asked to rate how confident they were in their verdict. These confidence scores were multiplied by +1 for a guilty verdict and -1 for a not guilty verdict in order to obtain a continuous verdict-confidence score that could be analyzed through an analysis of variance (ANOVA). The scaled scores obtained therefore ranged from -9 (*extreme confidence in a not guilty verdict*) to +9 (*extreme confidence in a guilty verdict*). A two-way ANOVA revealed no significant main effects for defendant's race,  $F(1, 191) = 1.59, ns$ , or for race-salience  $F(1, 191) = 2.17, ns$ , but did indicate a significant interaction between defendant's race and race-salience,  $F(1, 191) = 4.19, p < .05$ . This interaction provided support for the prediction that the salience of racial issues in a trial influences White jurors' decisions. As expected, in the non-race-salient condition White mock jurors judged the Black defendant ( $M = 5.40$ ) more harshly than the White defendant ( $M = 2.76$ ),  $t(191) = 2.33, p < .03$ , via planned contrast. The difference between ratings of the Black defendant in the non-race-salient and race-salient conditions ( $M = 2.59$ ) was also statistically significant,  $t(191) = 2.45, p < .02$ . Table 1 displays the four cell means for this and all subsequently reported dependent measures.

Participants were asked to rate the strength of the prosecution case on a scale of 1-9. A two-way ANOVA revealed no significant main effects for defendant's

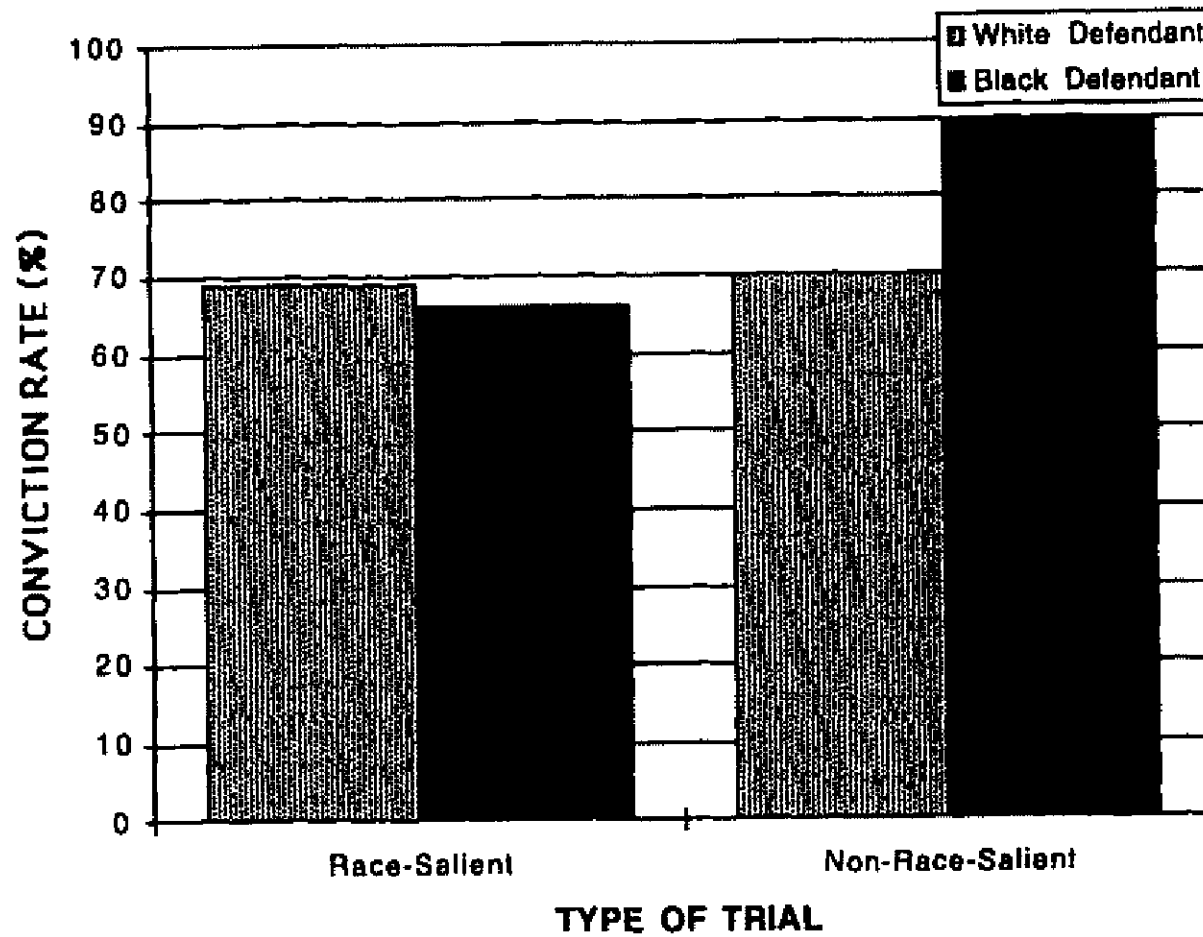


Figure 2. Conviction rates by defendant's race and race-salience of trial.

race,  $F(1, 191) = 1.59$ , *ns*, or for race-salience  $F(1, 191) = 1.25$ , *ns*, but did indicate the predicted interaction between defendant's race and race-salience,  $F(1, 191) = 4.24$ ,  $p < .05$ . A planned contrast supported the prediction that in the non-race-salient condition the case against the Black defendant ( $M = 6.32$ ) would be rated as stronger than the case against the White defendant ( $M = 5.42$ ),  $t(191) = 2.34$ ,  $p < .03$ . Jurors also rated the prosecution case against the Black defendant in the non-race-salient condition as significantly stronger than the case against the Black defendant in the race-salient condition ( $M = 5.43$ ),  $t(191) = 2.21$ ,  $p < .03$ .

Similar results were obtained for participants' ratings of the strength of the defense case, as the interaction between defendant's race and race-salience was

Table 1  
Cell Means and Standard Deviations by Condition

Measure	Race-salient trial				Non-race-salient trial			
	WD		BD		WD		BD	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Scaled verdict-confidence	3.22	5.88	2.59	6.15	2.76	5.85	5.40	4.17
Strength of prosecution	5.65	1.89	5.43	2.31	5.42	1.97	6.32	1.62
Strength of defense	4.38	1.83	4.51	1.80	4.56	1.65	3.76	1.87
Sentence recommendation	3.27	1.94	3.18	1.60	3.28	1.76	4.42	2.19

Note. For each measure, the mean for the BD in the non-race-salient condition is significantly different ( $p < .05$ ) from the means in the other three conditions through planned contrast. WD = White defendant; BD = Black defendant.

marginally significant,  $F(1, 194) = 3.21, p < .08$ . White mock jurors in the non-race-salient condition rated the White defendant's defense ( $M = 4.56$ ) as stronger than the Black defendant's ( $M = 3.76$ ), even though the defense attorney's examinations and arguments were identical for both defendants. A planned contrast supported the prediction that the Black defendant's defense would be rated as weaker in the non-race-salient condition than in the race-salient condition ( $M = 4.51$ ),  $t(191) = 2.04, p < .05$ .

Participants were also asked to recommend a sentence for the defendant from among several options that ranged from no punishment to four years in prison, the maximum allowable sentence for the crime of battery with serious bodily injury. These responses were converted to a scale of 1–9 on which higher numbers reflected the increased severity of the sentence recommendation. A two-way ANOVA revealed a marginally significant main effect for defendant's race,  $F(1, 192) = 3.69, p < .06$ , and a significant main effect for race-salience,  $F(1, 192) = 5.32, p < .03$ . More importantly, the ANOVA indicated a significant interaction effect,  $F(1, 192) = 5.15, p < .03$ . As predicted, juror bias in sentence recommendations was influenced by the salience of racial issues in the trial (see Figure 3). A planned contrast confirmed that in the non-race-salient condition mock jurors recommended a more severe sentence for the Black defendant ( $M = 4.42$ ) than for the White defendant ( $M = 3.28$ ),  $t(192) = 2.94, p < .005$ . Sentence recommendations were more severe for the Black defendant in the non-race-salient condition than in the race-salient condition ( $M = 3.18$ ),  $t(192) = 3.19, p < .005$ .

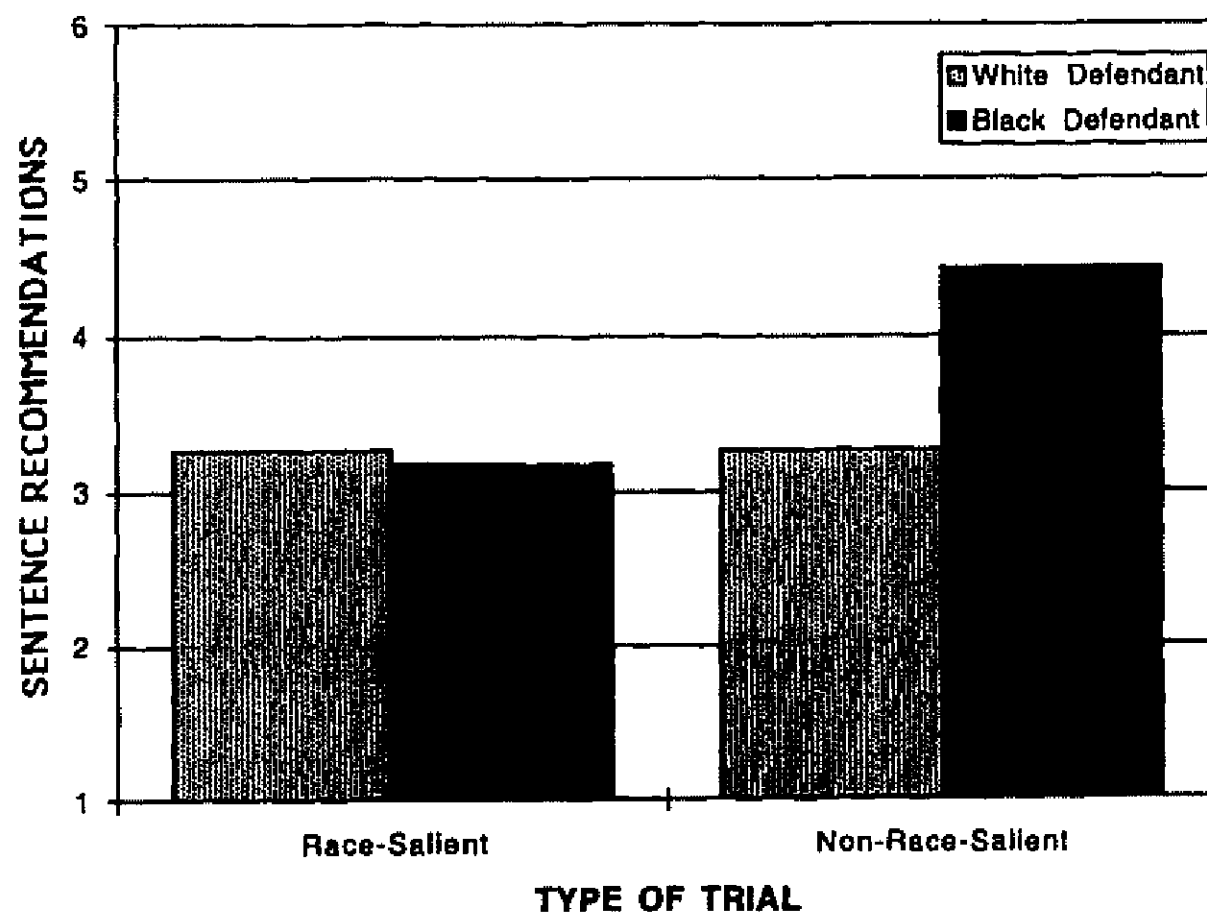


Figure 3. Sentence recommendations by defendant's race and race-salience of trial. Higher numbers on the y axis correspond to harsher sentence recommendations.

### Discussion

Mock jurors' judgments in the present study supported the hypothesis that White jurors are more likely to demonstrate racial prejudice in cases without salient racial issues. When race was made salient in the experimental trial, Whites demonstrated no signs of discrimination, apparently because the racial content of the trial activated a motivation to appear nonprejudiced. However, when race was not a salient issue, a motivation to avoid prejudice was not expected among jurors, and White mock jurors did indeed demonstrate racial bias in their judgments. This racial bias could be seen not only in mock jurors' verdict and sentence recommendations, but also in their ratings of how strong the prosecution and defense cases were. These results, while consistent with the present hypothesis, are inconsistent with the intuitive prediction of many scholars that racial bias is more likely to occur in racially-charged cases (Fukurai et al., 1993; Hans & Vidmar, 1986; King, 1993). The present data also contradict some scholars' arguments (Reynolds, 1996) and some empirical indications (Skolnick & Shaw, 1997) that White juror bias no longer is a problem in contemporary America.

The present results extend the initial findings of Sommers and Ellsworth (2000) because they were obtained using a trial summary free of the unique connotations carried by interracial romantic relationships. These results indicate that the predicted pattern of White juror bias is not confined to judgments of defendants charged with one particular type of crime. Another implication of the present findings is that race can be made salient in a trial in more than one way. In the trial summary used in this study, race was made salient through the testimony of a defense witness about the defendant's minority status on the basketball team and the abuse he suffered as a result. This generalization to another type of crime and a different racial issue increases the practical significance of these findings by testing the boundary conditions of the present hypothesis.

The practical significance of this study can be addressed more directly by considering how the effects reported in the present data might translate into bias among real jurors in real cases. Examining effect sizes reveals that both the race of the defendant and the race-salience of the trial account for less than 4% of the variance explained in mock jurors' decisions about the case (via binomial effect size display for the dichotomous verdict variable and  $\eta^2$  for the continuous measures). This apparently small effect is somewhat stronger than the effect of a major league baseball player's batting average on the likelihood that he will get a hit in a particular at bat (Abelson, 1985)—no single factor can be expected to account for a great deal of variance in complex events such as baseball games or criminal trials. Quantitatively small effects are often practically consequential (Johnson & Eagly, 2000), and focusing on jurors' actual conviction rates across conditions reveals the dramatic and significant influence of race on jurors' decisions in this study. The difference in conviction rates for the White and Black defendant in the non-race-salient condition of the present study was 20%; the difference in conviction rates for the Black defendant in the race-salient versus non-race-salient conditions was 24%.

On a 12-person jury, a difference of 20 percentage points in conviction rates amounts to a difference in the predeliberation opinions of 2 or 3 jurors. If a

12-person jury were to hear the non-race-salient version of the present trial with a White defendant, the results suggest that 8 jurors would enter the deliberation room leaning towards a conviction and 4 towards an acquittal. With the same case and a Black defendant, 11 jurors would be conviction-prone and only 1 juror would be likely to argue for acquittal at the start of deliberation. This is clearly a difference of substantial importance and concern. First of all, the predeliberation opinions of individual jurors are excellent predictors of a jury's eventual verdict, particularly for simple guilty-versus-innocent verdicts on a single charge (Kalven & Zeisel, 1966). In addition, the deliberation dynamics that would be in place for the present case would be drastically different depending on the race of the defendant. The predicted 8-to-4 preliminary vote to convict the White defendant might lead to a guilty verdict, but there would be enough jurors on each side of the issue for there to remain a chance of acquittal. Hastie, Penrod, and Pennington (1983, p. 96), for example, found that when 12-person juries operate under a unanimity rule, a majority of 8 actually determines the final verdict less than 70% of the time; there is a reasonable chance that a minority of 4 jurors will influence the majority. An 11-to-1 preliminary vote to convict the Black defendant is a much different story. Minority influence is extraordinarily difficult when a person in the minority has no allies (Asch, 1956; Moscovici & Lage, 1976).

### *Implications for Legal Policy and Practice*

*Jury composition.* The theoretical framework proposed in this article is a useful first step towards developing a better understanding of when and why racial bias is likely to occur among jurors. A logical next question involves what policies or practices can be adopted in order to reduce the likelihood of juror bias. An obvious way to combat White juror bias is to avoid juries that are exclusively White. There are a variety of ways in which the presence of Black jurors can reduce White juror bias. First, simply by having a vote in the final verdict, Black jurors can potentially prevent unanimous miscarriages of justice. However, interview studies and anecdotal evidence suggest that Black jurors often face a great deal of pressure to conform to the wishes of the White majority during deliberation (Bowers et al., in press).

The inclusion of Blacks on a jury can also influence the way that White jurors think about the case. The mere presence of Black jurors might be a normative cue that makes race salient and reminds many Whites about their egalitarian values. That is, without even explicitly mentioning race, Black jurors might be able to bring racial issues into the consciousness of White jurors and thereby make bias less likely. Empirical evidence suggests that even expectations surrounding the racial composition of a jury are sufficient to influence jurors' predeliberation decisions (Kerr et al., 1995). Black jurors might also raise consciousness about racial issues more directly and intentionally. Research suggests that Black jurors are more likely than Whites to believe that a Black defendant could have been singled out by police or prosecutors because of his race, and are more likely than Whites to perceive race as a relevant issue at trial (Bowers et al., in press; Sommers & Ellsworth, 2000). Accordingly, Black jurors may be more likely than Whites to raise the possibility of racial prejudice during deliberation. The greater the number of Blacks sitting on a jury, the greater the chance that discrimination



or racial issues in general will be brought up, and the present findings suggest that making such issues salient renders bias less likely.

*Jury selection during voir dire.* The question of how to ensure that juries are racially heterogeneous is a different matter. Strategies such as racial quotas for jury selection or other affirmative action measures have generally been viewed with suspicion (King, 1993). Even attempts to improve the representativeness of the jury pool by adding Black citizens have so far failed to gain legal approval (Cohn & Sherwood, 1999), although less explicitly racial methods, such as geographical oversampling of Black neighborhoods, have not yet been examined by the courts. Certainly one strategy would be to scrutinize so-called "race-neutral" *Batson* (*Batson v. Kentucky*, 1986) exclusions more stringently than has often been the practice (Bowers et al., in press; Raphael & Ungvarsky, 1993).

The process of voir dire itself is another way in which bias might be diminished. The nature of a crime and the race of the defendant or victim sometimes prompts attorneys or judges to ask potential jurors about their racial attitudes and their ability to make a nonprejudiced decision. In *Turner v. Murray* (1986), the Supreme Court ruled that this line of questioning is a key element in the attempt to ensure a defendant's right to an impartial jury, at least in capital cases. The present research suggests that asking potential jurors about their racial attitudes may indeed reduce White juror bias, but through a more indirect route. Voir dire questions may be more successful in influencing jurors affected by modern racism than in identifying them.

Due to racial norms in contemporary America, modern racism is often expressed in subtle ways and prejudicial thoughts often linger outside Whites' conscious awareness. As a result, when asked about their ability to remain race-neutral, few White Americans admit to harboring anti-Black sentiment. Some potential jurors may intentionally lie in order to avoid appearing prejudiced. Others may truly believe they are impartial. In either case, the principal usefulness of direct questioning about racial attitudes lies not in its diagnostic ability to unmask potentially biased jurors. Rather, the questions themselves can serve to remind Whites about their egalitarian values, suppressing the eventual expression of racial bias. In addition to case-specific questions, asking potential jurors about their beliefs regarding the fairness of the criminal justice system or the pervasiveness of racism in society at large may also make race more salient. In courtrooms where attorneys have some leeway in voir dire questioning, the introduction of racial issues during jury selection is a potential strategy for preventing White juror bias.

*"Playing the race card."* Race can also be made salient during the course of a trial. In the present study, a defense witness' description of the role race played in the incident was enough to lead White jurors to render nonprejudiced judgments of a Black defendant. An attorney defending a Black defendant might be wise to intentionally introduce racial issues during a trial's proceedings, during the examination of witnesses, or during opening or closing arguments. An attorney might suggest that a Black defendant's race influenced the allegedly criminal incident, the subsequent police investigation, the likelihood of arrest, or the indictment decision eventually made by prosecutors. Essentially, such a strategy would be "playing the race card," a phrase made (in)famous by Johnnie Cochran in the O. J. Simpson criminal trial. Cochran, though, was playing to a

predominantly Black jury, and his repeated accusations of police misconduct and racism were intended to inflame the racial passions of these non-White jurors. In some cases a modified version of this tactic could be an effective way to remind White jurors of their egalitarian values and of the possibility of racial bias in the criminal justice system.

"Playing the race card" in order to influence White jurors could be a risky endeavor though. Making racial issues salient in a trial will remind White jurors of their desire to appear nonprejudiced. But if claims of racial injustice or police misconduct are perceived by Whites as baseless or as manipulative attempts to get a seemingly guilty defendant off the hook, the strategy might actually backfire. Empirical research suggests that suspicion about the ulterior motives of attorneys can undermine their attempts to influence mock jurors (Fein, McCloskey, & Tomlinson, 1997). White jurors might particularly resent transparent attorney tactics when they are related to the sensitive issue of race.

An unpublished, preliminary mock juror study conducted by the present authors (Sommers & Ellsworth, 1999) revealed that when the defense case was relatively weak, jurors were more likely to vote guilty when the defense attorney alleged a racially-motivated police conspiracy. According to posttrial measures, most mock jurors did not believe these racial allegations and viewed them as a last-ditch attempt to stave off conviction. Future research is needed to clarify the situations in which playing the race card will effectively combat White juror bias. For now, a likely hypothesis is that the strategy can be effective with White jurors when the racial claims made are substantiated by evidence and the case against the defendant is not air-tight.

*Limitations and future directions.* As is the case with all mock juror research, there are some limitations of the present study that must be considered when drawing conclusions. The central hypothesis of this article assumes that most Whites actually endorse the egalitarian value system described by Gaertner and Dovidio's (1986) theory of aversive racism. The present study was conducted using middle-class Northern American Whites as mock jurors. Among Whites of different socioeconomic or geographic backgrounds, the motivation to appear nonprejudiced might be weaker, and in some cases nonexistent. As has been argued throughout this article, consideration of the racial norms and mores of the communities that surround modern courtrooms is essential for understanding juror bias within them. Whites who unabashedly express overtly prejudicial attitudes will likely demonstrate bias against Black defendants in all cases, regardless of their race-salience. Overt and conscious racism such as this is highly pernicious, but it is easier to detect and predict (e.g., during jury selection) than the more subtle form of prejudice described by Gaertner and Dovidio. Following the lead of numerous contemporary social psychologists (Devine, 1989; Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Greenwald & Banaji, 1995), it is this less conscious, less overt form of modern prejudice that the present study examined.

Jurors in the present study rendered verdicts without deliberating, a methodological omission that Bernard (1979) and others have pointed to as a common flaw in mock juror research. Incorporating deliberation into future investigations of race in the courtroom is an important extension of this research. More generally, it is important to acknowledge that there certainly are differences

between mock jurors rendering decisions about a defendant who only exists on paper and real jurors making judgments about the fate of an actual defendant. But the usefulness of studies such as the present one is that they allow the investigator to compare jurors' judgments across a variety of trials, and they afford the researcher a necessary degree of experimental control that is impossible to achieve outside the laboratory. They are also a necessary first step in designing more expensive and elaborate studies that examine deliberation. Mock juror experiments such as the present study serve a limited but nonetheless essential role in legal research, and they should be considered in conjunction with historical trends, archival data, and legal theory—a cross-disciplinary approach adopted in this article.

As previously mentioned, the race of the victim is another consideration in need of empirical attention. Victim's race historically has been found to influence juror decisions and has also been linked more specifically to juror bias (Baldus et al., 1990; Wolfgang & Reidel, 1973). In light of the present theoretical perspective, one hypothesis would be that a victim's race is influential in part because it can lead to salient racial issues at trial. Attorneys are more likely to make racially-charged arguments in interracial cases, and witnesses are more likely to address race on the stand in such trials. In some interracial cases, the issue of race might be so endemic to the crime itself that it becomes salient from the very outset of the trial (e.g., hate crimes, cases involving police brutality or fabrication of evidence). It will be important in future research to systematically vary both the defendant's race and the victim's race, including Black-on-Black, Black-on-White, White-on-Black, and White-on-White crimes in the same study. Making race a salient issue in a same-race crime, particularly a crime involving only White people, and doing so in a way that is equally plausible across all four defendant-victim combinations, is not a simple task, however, and it is one that the present authors are still working on.

As explained in the *Introduction* of this article, the present investigation focuses on White juror bias because of the long history of White racism in this country and because most psychological theories of prejudice and discrimination focus on White perceivers. But certainly the decision-making of non-White jurors is also of interest and importance. By examining the influence of race on the decision-making of jurors from a wide variety of backgrounds, a more complete picture of racial attitudes in the courtroom can be attained. Furthermore, cross-racial comparisons of White and non-White jurors are empirically necessary in order to determine whether racial bias differs by jurors' race or is simply a universal cultural phenomenon in America. Such cross-racial comparisons have been made on occasion; for example, the Sommers and Ellsworth (2000) studies also examined the decisions made by Black mock jurors. The results indicated that Black jurors tended to demonstrate leniency towards a Black defendant in both the race-salient and non-race-salient conditions. Skolnick and Shaw (1997) describe a similar finding of same-race leniency among Black jurors.

Although so far there are limited data, one plausible explanation for this pattern of results involves the same issues of race-salience and racial norms addressed throughout this article. Black mock jurors in Sommers and Ellsworth (2000) were more likely than White mock jurors to rate the case of a Black defendant as racially charged even in the non-race-salient condition. This pro-

ensity to view trials of Black defendants as race-salient might stem from the racial concerns of Black Americans, which some theorists have characterized as being chronically suspicious of White institutions and focused on combating White racism (Jones, 1997; Shelton, 2000). Accordingly, salient racial issues might activate a motivation in Black jurors to level the playing field for Black defendants by giving them, and not the predominantly White system, the benefit of the doubt in criminal trials. This is mere speculation, however, and additional investigation of these questions is obviously needed, especially given recent, problematic arguments that the real problem of racial bias in the legal system lies with Black juror nullification (Reynolds, 1996).

A related research question entails studying the actual decision-making process of jurors in conjunction with racial bias. Almost all of the studies cited and the data reported in this article concern the final decisions of jurors (conviction rates and sentence recommendations). Also of interest is the process through which jurors arrive at these decisions. In the case of White jurors, do differential conviction rates for White and Black defendants reflect different interpretations of trial evidence? Do White jurors make different attributions for the behavior of White and Black defendants? Are their story constructions for the facts of the case (Pennington & Hastie, 1992) influenced by race? Along these lines, it should also be possible to determine whether the same-race leniency demonstrated by Black jurors reflects a conscious decision to level the playing field for Black defendants, or actual differences in the perception and interpretation of evidence depending on the defendant's race. A variety of methods, including online evidence ratings, midtrial guilt measures, and open-ended response questions could be used to examine these possible process differences.

### Conclusion

This article continues the investigation of Sommers and Ellsworth (2000) and confirms the importance of race-salience as a variable influencing White juror bias. Without controlling for race-salience, many previous researchers of race in the courtroom have arrived at ambiguous and inconsistent conclusions. Much of this uncertainty can be resolved by the theoretical perspective outlined here. The present empirical findings support the hypothesis that White jurors are more likely to demonstrate racial bias in cases that do not raise blatantly racial trial issues. This depiction of the nature of modern juror bias is consistent with Gaertner and Dovidio's (1986) conceptualization of aversive racism, and is also reflected in recent Supreme Court opinions that cite the potential biasing influence of subtle, less overt forms of racial prejudice (e.g., *Turner v. Murray*, 1986).

The abolition of separate, race-based penal codes and other institutionalized forms of discrimination in the legal system has led many researchers to focus their examination of bias in the modern American courtroom on the decisions of jurors. Studies of racism in the legal system are well served by analyses at the level of the individual juror and jury, but one of the main purposes of this article is to emphasize the importance of considering the broader historical contexts and sociocultural atmospheres in which American courtrooms exist. Returning to the concerns raised by Harper Lee forty years ago, it seems true that most Americans no longer live in a society as racist as the one depicted in *To Kill a Mockingbird*

(Lee, 1960). After centuries of activism and struggle, the expression of anti-Black sentiment has become inappropriate and even taboo in many communities. Black defendants certainly have a better chance of getting "a square deal" today than they did in the past. But even if the torrent of racism that once dominated the U.S. legal system has subsided, an undercurrent of prejudice continues to influence juror decisions. To this day, one cannot assume defendants always receive a fair trial regardless of the color of their skin. People still carry their resentments into the jury box with them, often without realizing they are doing so. And, there certainly are no assurances that today's court-appointed defense attorneys are all as devoted or persuasive as Atticus Finch.

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# **EXHIBIT “2”**

# Racial Bias in Perceptions of Others' Pain

Sophie Trawalter<sup>1,2\*</sup>, Kelly M. Hoffman<sup>2</sup>, Adam Waytz<sup>3</sup>

**1** Frank Batten School of Leadership and Public Policy, University of Virginia, Charlottesville, Virginia, United States of America, **2** Department of Psychology, University of Virginia, Charlottesville, Virginia, United States of America, **3** Kellogg School of Management, Northwestern University, Evanston, Illinois, United States of America

## Abstract

The present work provides evidence that people assume *a priori* that Blacks feel less pain than do Whites. It also demonstrates that this bias is rooted in perceptions of status and the privilege (or hardship) status confers, not race *per se*. Archival data from the National Football League injury reports reveal that, relative to injured White players, injured Black players are deemed more likely to play in a subsequent game, possibly because people assume they feel less pain. Experiments 1–4 show that White and Black Americans—including registered nurses and nursing students—assume that Black people feel less pain than do White people. Finally, Experiments 5 and 6 provide evidence that this bias is rooted in perceptions of status, not race *per se*. Taken together, these data have important implications for understanding race-related biases and healthcare disparities.

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\* E-mail: strawalter@virginia.edu

## Introduction

Relative to White Americans, Black Americans experience higher rates of diseases, disability and premature death [1,2]. Disparities in healthcare contribute to these health disparities. Black patients are more likely to receive lower-quality healthcare and are subject to less desirable procedures. For instance, Black patients are over three times more likely than White patients to have limbs amputated as a result of diabetes [3]. Moreover, Black patients are systematically undertreated for pain [4–6]. They are less likely than Whites to receive pain medication and, when they do, they receive less [7,8]. Numerous explanations have been proposed, ranging from assumptions about Black patients' inability to pay for healthcare to racial prejudice [6,9]. These explanations generally imply that Black patients' pain is recognized but not treated. Another explanation, however, is that Black patients' pain is not recognized in the first place. The present work begins to examine this possibility; it provides evidence that people—including medical personnel—assume *a priori* that Black people feel less pain than do White people.

Consistent with this thesis, a study of physician-patient interactions has shown that physicians underestimate Black patients' pain more than White patients' pain [10]. Because this study was not an experiment, however, it is not clear whether this bias was the result of patient race, physician characteristics, and/or characteristics of the patient-physician interaction. Social psychological research provides relevant but inconclusive experimental evidence for our thesis. Work on stereotyping and prejudice has shown that Blacks, Black men in particular, are stereotyped as being dangerous and physically tough—qualities that might make them seem impervious to pain [11–14]. Work on dehumanization has shown that Black men are infra-humanized and that the infra-humanization of Black men is associated with the condoning of police brutality against Black men [15]. These findings suggest that people do not care about harm inflicted upon

a Black victim and/or that they do not recognize the extent to which a Black victim might be injured by such harm. Finally, work on the “intergroup empathy gap” has shown that Whites often fail to “feel” the pain of outgroup members, including Black people [16,17]. Studies using fMRI technology have shown that for White participants, a network of neural regions involved in processing one's own pain (“the pain matrix”) responds similarly to viewing harm inflicted on racial ingroup but not racial outgroup members [18,19]. Again, these findings suggest that people do not care about Blacks' pain and/or do not recognize how much pain Blacks might feel. In the present work, we tested the latter possibility. We provide experimental evidence that people, including medical personnel, assume *a priori* that Blacks feel less pain than do Whites. We also provide archival evidence to illustrate the potential breadth of this phenomenon.

## Archival Study

We began testing our hypothesis using the National Football League's (NFL) 2010 and 2011 injury reports. Throughout the football season, coaching staffs and team medical personnel must evaluate injured players and rate their likelihood of being able to play the following week. We reasoned that if Black players are assumed to feel less pain, then they might be rated as more likely to play when injured relative to White players.

## Methods

Research assistants blind to study hypotheses transcribed the NFL Injury Reports for the 2010 and 2011 seasons. Research assistants recorded each injury for each season, the players' race, age, experience (years) in the NFL, position, and injury type, as well as players' next-game status. Next-game status ranged from Out (definitely not playing) to Doubtful, Questionable, and Probable. This ordinal classification system served as our dependent measure.

**Table 1.** List of injuries for football seasons 2010 and 2011.

Injury	Frequency	Percent
Knee	1803	22.78
Ankle	1255	15.86
Hamstring	783	9.89
Shoulder	683	8.63
Foot	463	5.85
Groin	417	5.27
Back	339	4.28
Calf	228	2.88
Hip	185	2.34
Toe	179	2.26
Neck	167	2.11
Quadriceps	145	1.83
Thigh	133	1.68
Head	131	1.66
Ribs	116	1.47
Elbow	112	1.42
Hand	95	1.2
Thumb	90	1.14
Wrist	89	1.12
Chest	65	0.82
Finger	64	0.81
Shin	46	0.58
Forearm	45	0.57
Abdomen	38	0.48
Fibula	38	0.48
Rib	32	0.4
Achilles	29	0.37
Biceps	23	0.29
Triceps	23	0.29
Pectoral	13	0.16
Pelvis	12	0.15
Glutes	10	0.13
Heel	10	0.13
Eye	9	0.11
Oblique	6	0.08
Migraine	5	0.06
Arm	4	0.05
Lower Leg	4	0.05
Stinger	4	0.05
Arch	3	0.04
Jaw	2	0.03
Kidney	2	0.03
Leg	2	0.03
Back Spasm	1	0.01
Cheek	1	0.01
Collar bone	1	0.01
Dehydrated	1	0.01
Ear	1	0.01
Eye Lid	1	0.01
Hernia	1	0.01

**Table 1. Cont.**

Injury	Frequency	Percent
Infection	1	0.01
Lacerated Kidney	1	0.01
Nose	1	0.01
Tibia	1	0.01
Tooth	1	0.01

doi:10.1371/journal.pone.0048546.t001

## Results and Discussion

We constructed a multi-level model to examine the effect of player race on next-game status. We did this for all injuries aside from concussions and illnesses. See Table 1 for a list of injuries. Control variables all affected next-game status; position:  $F(21, 5530) = 1.91, p = .008$ , injury:  $F(56, 5530) = 3.49, p < .0001$ , and experience:  $F(1, 474) = 3.82, p = .05$ . As predicted, the analysis revealed that relative to injured White players, injured Black players were deemed more likely to play in the next game, controlling for players' experience in the NFL, position, and injury type,  $F(1, 5530) = 6.39, p = .01, M_{Black} = 1.97, SE_{Black} = .11$ , and  $M_{White} = 1.84, SE_{White} = .12$ . We also examined Huber-White standard errors allowing for heteroscedasticity clustered at the team, team-year, and player level. These standard errors are larger than classical standard errors but similar to each other. Results held when we used these conservatively large standard errors in our inferences. Results also held when taking out data from Tom Brady and/or the Patriots; Tom Brady of the Patriots was placed on the injury list almost every week despite playing every (or nearly every) game. Interestingly, players' race had no effect on next-game status in the case of concussions and/or unspecified illnesses,  $F < 1$ .

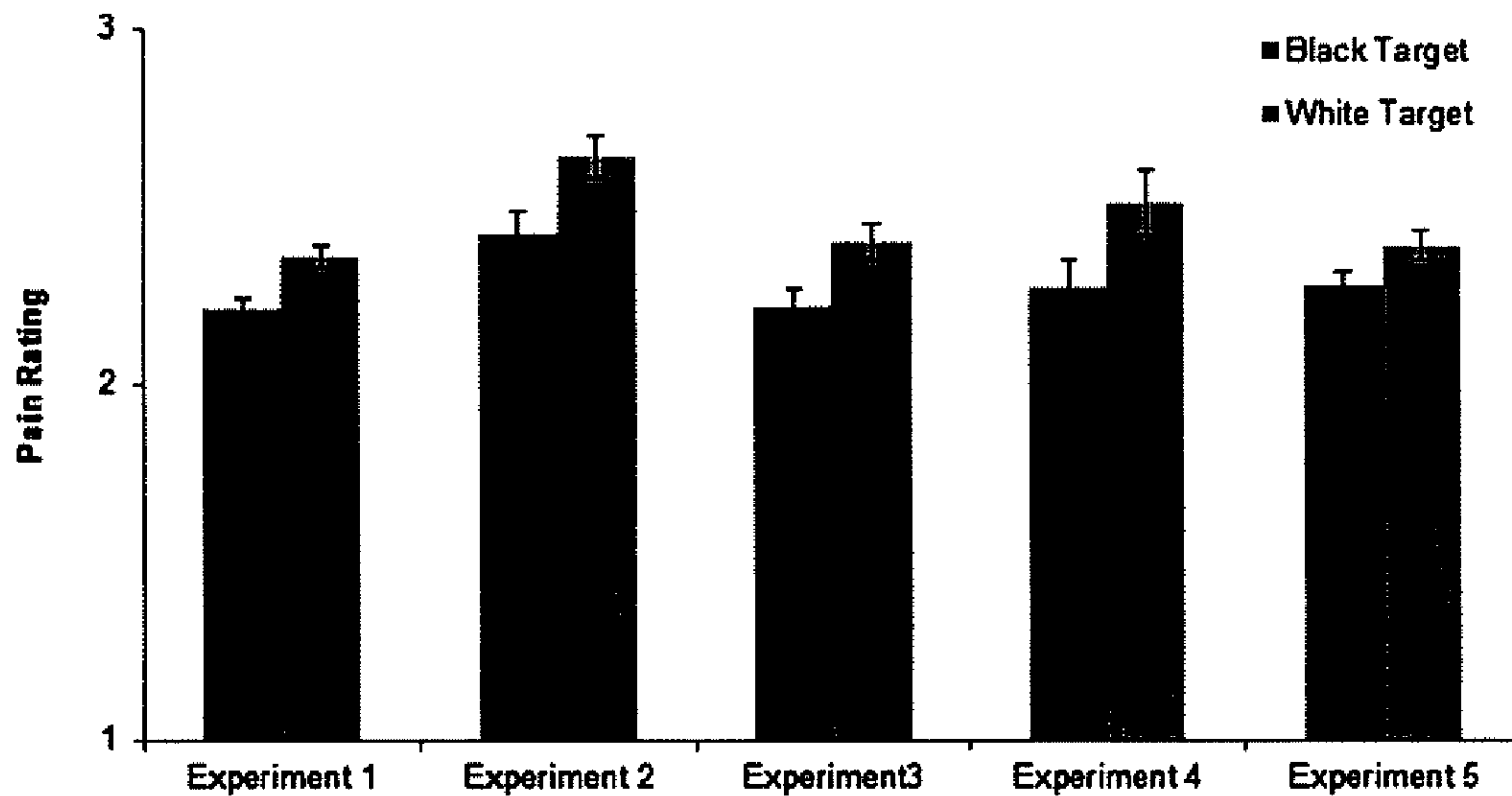
These findings are consistent with our claim that Black people—in this case, Black players—are presumed to feel less pain than White people. Indeed, it is telling that when mandated standardized testing (rather than human judgment) was used to determine a player's next-game status, as is the case with concussions, the racial bias disappeared. Although a racial difference emerged among NFL players, these data are far from conclusive. Assuming that Black players feel less pain is one of many reasons why injured Black players might be more likely to play compared with injured White players. For example, it is possible that Black players are more likely to want to play when injured or that they have been socialized to ignore and play through their pain [12].

## Experiment 1

Although these NFL injury data are provocative, the effect of race was small and alternative explanations abound (e.g., players' determination to play even while injured). We thus sought more direct and conclusive evidence for our hypothesis by conducting a set of experiments. In our first experiment, we tested whether Whites assume that Black people feel less pain than do White people.

## Methods

**Ethics statement.** All studies were approved by the Institutional Review Board at the University of Virginia and conducted in the U.S. All participants provided consent, either by signing a written consent form or indicating their consent by clicking on a button on an online (written) consent form.



**Figure 1. Pain ratings (estimated means and standard errors) for Experiments 1–5.**  
doi:10.1371/journal.pone.0048546.g001

**Participants.** We recruited 250 White participants from the University of Virginia (UVA) Department of Psychology participant pool ( $N=102$ ) and via Mechanical Turk ( $N=148$ ), an online marketplace powered by Amazon.com. UVA participants received course credit for their participation. Mechanical Turk participants received \$0.50 for their participation. We excluded 10 participants from our analyses below for not being native English-speakers and/or American. In all experiments, we excluded non-English-speakers and non-Americans because we suspect this racial bias in pain perception is a cultural phenomenon. Including these participants in our analyses does not change the results of Experiments 1, 2, 4, 5, and 6 but does change the results of Experiment 3 (see below). The final sample of 240 varied in age ( $M=28.47$ ,  $SD=12.16$ ) and gender (63% female).

**Stimuli.** We used standardized pictures from the Productive Aging Lab Face Database [20]. Specifically, we used 9 pictures each of Black and White men, and 6 pictures each of Black and White women. Pilot testing revealed that Black and White, male and female targets were rated as equally attractive, emotionally expressive, and familiar, all  $F_s < 1$ . However, the female targets and White targets were rated as significantly less threatening than the male targets and Black targets, respectively,  $F=21.81$ ,  $p < .0001$  and  $F=5.11$ ,  $p = .03$ . These differences were expected. They reflect commonly held stereotypes about gender and race, beliefs about what it means to be male or female, Black or White. Indeed, we acknowledge the possibility that perceived threat is part of this racial bias in pain perception and address this potential “threat” confound in Experiment 4.

**Procedure.** After signing (or clicking “continue” to indicate agreement with) the consent form, participants were asked to rate the amount of pain they would feel in 18 situations. Situations ranged from getting a paper cut and getting shampoo in the eye, to getting an injection in the arm, stubbing a toe on a chair, and slamming a hand in a car door. Then, participants were randomly assigned to rate the amount of pain a Black or White gender-matched target person would feel in the same 18 situations. A subset of female participants ( $N=63$ ) saw a male target; i.e., not a gender-matched target. Excluding these participants does not change the pattern of results. Participants made all of their ratings

on 4-point scales (1-not painful, 2-slightly painful, 3-moderately painful, 4-extremely painful). This pain measure for self and other was internally reliable,  $\alpha = .85$ . Next, participants completed measures of race-related attitudes and/or concerns (i.e., the *Motivation to Respond without Prejudice Scale* [21]; the *White Guilt Scale* [22]; the *Modern Racism Scale* [23]; the *Implicit Association Test* [24]). Finally, participants were asked a number of demographic questions including age, gender, race/ethnicity, social economic status (education/parental education, household income, and subjective social class), nationality (country of birth), and number of years in the U.S.

## Results and Discussion

We constructed a general linear model (GLM) to examine the effect of target race on perceptions of pain. We controlled for participants' age, gender, and self-ratings of pain. We controlled for age because all targets were young adults, making them more similar to younger participants. Indeed, across experiments, age was often a significant predictor of participants' ratings of the target's pain. We controlled for gender given our *a priori* assumption that women would report more pain, both for themselves and for the target. Finally, we controlled for self-ratings of pain because these self-ratings were so variable (with some participants reporting relatively low levels of pain across scenarios and others reporting relatively high levels of pain across scenarios) and so highly predictive of participants' ratings of the target's pain. Across experiments, the best predictor of pain ratings was self-ratings of pain. See Table 2 for test statistics for all covariates, for all experiments. More importantly, and consistent with predictions, participants' pain ratings were significantly lower for a Black vs. White target,  $F(1,235)=15.07$ ,  $p = .0001$ ,  $d = .51$ . See Figure 1. This result held when not controlling for covariates. As a brief aside, the effect of target race on pain ratings also held in Experiment 5 but not in Experiments 2, 3, 4, and 6—experiments in which cell sizes are relatively smaller. Our sense is that self-ratings of pain are too variable and too predictive to be ignored. The interested reader can look at the Supporting Information for tables of unadjusted means and standard deviations for self-

**Table 2.** Test statistics for covariates in experiments 1–5.

	Experiment 1	Experiment 2	Experiment 3	Experiment 4	Experiment 5	Experiment 6
Self-ratings	$F=123.74$ $p<.0001$	$F=61.40$ $p<.0001$	$F=37.41$ $p<.0001$	$F=54.79$ $p<.0001$	$F=130.40$ $p<.0001$	$F=366.53$ $p<.0001$
Age	$F=3.57$ $p=.06$	$F=7.78$ $p=.01$	$F<1$	$F=5.24$ $p=.03$	$F<1$	$F=2.99$ $p=.08$
Gender	$F<1$	$F<1$	$F=1.40$ $p=.24$		$F=3.67$ $p=.06$	$F<1$
Race/ethnicity			$F<1$	$F<1$	$F<1$	$F<1$

doi:10.1371/journal.pone.0048546.t002

ratings of pain and ratings of the target's pain, and correlations between self-ratings of pain and ratings of others' pain.

Explicit and/or implicit race-related attitudes and/or concerns did not moderate this effect, suggesting that this bias in pain perception is not the result of racial prejudice *per se*. In other words, although we observed a difference in the way people treated (perceived) a Black vs. a White target (i.e., a racial bias in pain perception), this difference was not associated with negative or otherwise demeaning thoughts, feelings, or action tendencies toward Black people more generally (i.e., racial prejudice).

## Experiment 2

The fact that racial bias in perception of others' pain was not related to explicit or implicit race-related attitudes and/or concerns raises the possibility that this bias is not rooted in racial animus, at least not primarily or entirely. Thus, in Experiment 2, we replicated Experiment 1 with Black participants, reasoning that Black Americans might also show the bias.

## Methods

**Participants.** We recruited 42 Black participants from the UVA Psychology participant pool ( $N=17$ ) and via Mechanical Turk ( $N=25$ ). UVA participants received course credit for their participation. Mechanical Turk participants received \$0.50 for their participation. We excluded 7 participants from the analyses below for not being native English-speakers and/or American. Including these participants in our analyses does not change the pattern of results below. Our final sample of 35 varied in age ( $M=30.22$ ,  $SD=14.08$ ) and gender (67% female).

**Procedure.** The procedure was identical to that of Experiment 2 with the exception that participants did not complete any of the race-related measures.

## Results and Discussion

We constructed another GLM to examine the effect of target race on pain ratings, again controlling for participants' age, gender, and self-ratings of pain. Analyses revealed a similar bias. Participants' ratings were significantly lower for a Black vs. White target,  $F(1,30)=5.27$ ,  $p=.03$ ,  $d=.84$ . See Figure 1. These findings suggest that this bias is not rooted solely in racial prejudice or intergroup dynamics.

## Experiment 3

In our introduction, we claim that this bias may shed light on racial disparities in healthcare and, specifically, pain treatment. To begin to investigate this claim, we replicated Experiments 1 and 2 with a sample of registered nurses and nursing students.

## Methods

**Participants.** We recruited 56 participants with the help of faculty members and administrators at a school of nursing. Participants were mailed a \$10 gift certificate for their participation. Thirteen identified the main hypothesis, and thus their data were removed. It is worth noting that most of these participants completed the study toward the end of data collection, suggesting that they had heard about the study from someone else. Including these participants in our analyses did change the results—the pattern did not change but the difference between target race conditions was no longer statistically significant. The final sample of 43 included 29 registered nurses and 14 nursing students. The sample varied in age ( $M=32.64$ ,  $SD=12.84$ ) and ethnicity (88% White, 7% Black, and 5% other). All participants except one were women.

**Procedure.** The procedure was identical to that of Experiment 2.

## Results and Discussion

We constructed a GLM to examine the effect of target race on ratings of pain, controlling for participants' age and self-ratings of pain. We did not control for gender as only one participant was male. However, we controlled for participant race given that we had participants from various ethnic/racial groups. We reasoned, based on Experiments 1 and 2, that there might be ethnic/racial group differences in pain ratings; namely, that Black participants might systematically report greater pain than White participants (see Supporting Information). As in the first two experiments, participants' pain ratings were significantly lower for a Black vs. White target,  $F(1,38)=4.90$ ,  $p=.03$ ,  $d=.72$ . See Figure 1. In other words, nurses and nursing students in this study also assumed that Blacks feel less pain than do Whites.

## Experiment 4

Experiments 1–3 provide some support for our thesis that people—including nurses and nursing students—assume *a priori* that Blacks feel less pain than do Whites. Recall, however, that independent coders rated the Black targets as significantly more threatening than the White targets (Experiment 1). It is thus possible that participants assumed that threatening individuals feel less pain than do non-threatening individuals; not that Blacks feel less pain than do Whites. This explanation of our data is not quite satisfactory, however. Extant research has demonstrated that individuals often *over-perceive* threat in Black targets [25,26]. In this way, perceived threat is not a confound. Being perceived as a threat is part of what it means to be Black in America [27]. Indeed,

we suspect that perceived threat might be part of our effect. Nonetheless, we wanted to rule out the possibility that perceived threat was a confound in our stimuli. To do this, we created Black-White morphed faces, which we labeled as either being Black or White. We predicted that, even when looking at the same target person, participants would assume that the target would feel less pain when the target was labeled "Black" vs. "White."

## Methods

**Participants.** We recruited 99 participants via Mechanical Turk. We excluded 39 participants: 13 for not being native English-speakers and/or American and the rest for failing the manipulation checks. Including these participants does not change the results, however. The final sample of 60 varied in age ( $M = 30.98$ ,  $SD = 11.24$ ), gender (63% female), and race/ethnicity (73% White, 8% Black, 19% other).

**Stimuli.** We morphed a Black and a White male target face and a Black and a White female target face from Experiment 1 using FantaMorph software. The resulting male and female faces were racially ambiguous.

**Procedure.** The procedure was identical to that of Experiment 2, with the exception that all male participants saw the same (morphed) male target face and all female participants saw the same (morphed) female target face. Participants in the "Black target" condition were told that the racially-ambiguous target person was Black. Participants in the "White target" condition were told that the racially-ambiguous target person was White. After completing the pain ratings, participants were asked two questions about the target person: his/her name and his/her race/ethnicity.

## Results and Discussion

We constructed a GLM to examine the effect of target race on pain ratings, again controlling for participants' age, gender, and self-ratings of pain. Analyses revealed a similar racial bias. Participants' ratings were significantly lower for a Black vs. White target,  $F(1,53) = 5.97$ ,  $p = .02$ ,  $d = .67$ . See Figure 1. Because participants in both the Black target and White target conditions saw the same target faces, these differences cannot be attributed to differences in the target faces; they can only be attributed to the racial label ascribed to the target faces. In other words, the documented bias seems to be a race-related bias. Given the pervasiveness and potentially negative consequences of this bias, it is imperative to understand what is driving this effect. Experiments 5 and 6 begin to uncover the underlying mechanism of this bias.

### Experiment 5

In Experiment 5, we began to explore what psychological processes underlie this bias. Because this bias does not appear to be the direct result of racial prejudice (Experiment 1) or intergroup dynamics (Experiment 2), we looked to a social dimension beyond race; namely, status. We reasoned that the pain of lower-status individuals might be systematically underestimated because people assume that individuals who have had a life full of adversity are tough by necessity, whereas those who have had a life of privilege are frail by virtue of being sheltered and coddled. Because Blacks have relatively low status in U.S. society, people may assume that Black people have less privileged lives—lives with more hardships—and infer that they must be tougher. We tested this idea in Experiment 5 using a mediation approach.

## Methods

**Participants.** We recruited 127 participants via Mechanical Turk. Participants received \$0.50 for their participation. We excluded 23 participants for not being native English-speakers and/or American. Including these participants in our analyses did not change the results below. For the sake of consistency across studies, however, we excluded these participants from the analyses. The final sample of 104 varied in age ( $M = 27.06$ ,  $SD = 11.32$ ), ethnicity (71% White, 9% Black, 20% other), and gender (51% female).

**Procedure.** Experiment 5 was a direct replication of Experiments 2 and 3 with one exception. At the end of the study, participants rated their own privilege on 4 items (i.e., how privileged do you think you are? How hard do you think your life has been? How lucky do you think you have been? How much adversity do you think you have overcome?) and the target person's privilege using the same 4 items with anchors at 1-*Not at all* to 4-*Extremely*.

## Results and Discussion

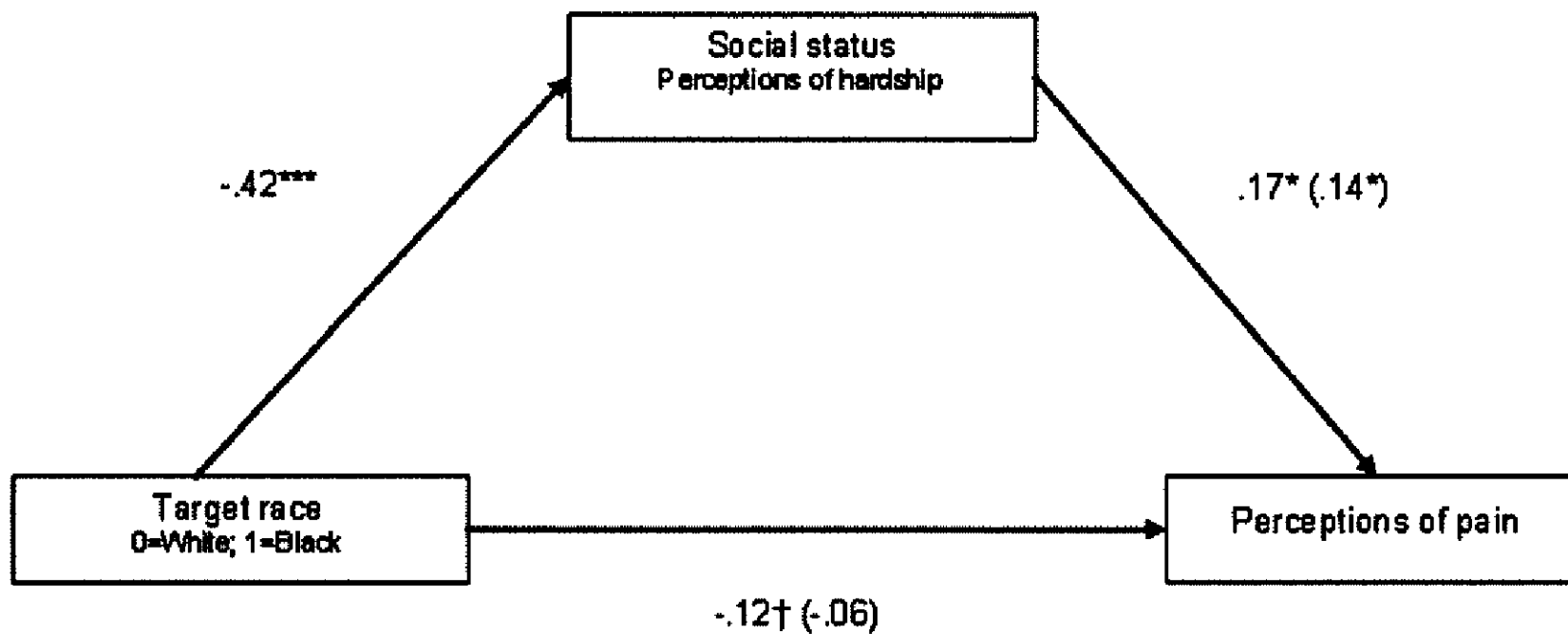
We constructed a GLM to examine the effect of target race on perceptions of pain, controlling for age, gender, race, and self-ratings of pain. In replication of Experiments 1–4, participants' pain ratings were lower for a Black vs. White target,  $F(1,98) = 3.67$ ,  $p = .06$ ,  $d = .39$ . See Figure 1.

We constructed a similar GLM to examine the effect of target race on perceptions of privilege, controlling for age, gender, race, and self-ratings of privilege. As expected, participants' ratings of the target person's privilege were significantly lower for a Black vs. White target,  $F(1,98) = 21.73$ ,  $p < .0001$ ,  $d = .94$ . In other words, participants assumed that the Black target was less privileged and faced more hardship than the White target.

Finally, to examine whether perceptions of privilege mediated perceptions of pain, we regressed perceptions of pain onto perceptions of privilege, again controlling for all covariates. Consistent with predictions, participants' ratings of the target's privilege predicted pain ratings,  $F(1,97) = 7.39$ ,  $p = .008$ ,  $d = .55$ . The less privileged the target seemed, the less participants thought s/he would experience pain. In other words, participants associated hardship with physical toughness. Importantly, target race (Black vs. White) was no longer predictive of pain ratings once we controlled for participants' perceptions of the target's privilege,  $F < 1$ , while target's privilege continued to predict pain ratings  $F(1,96) = 3.98$ ,  $p = .05$ ,  $d = .41$ , Sobel test  $z = -2.42$ ,  $p = .02$ . See Figure 2 for mediation model. These data suggest that perceptions of social status—how much privilege/hardship a person has experienced in life—mediate perceptions of pain. Perceived privilege/hardship accounted for the racial bias in perceptions of others' pain.

### Experiment 6

In Experiment 6, we examined the effect of perceived privilege on perceptions of pain using a moderation approach and using a different operationalization of privilege. In particular, we tested whether giving participants information about the status of the target person might undo the racial bias. Specifically, we wanted to test whether participants would perceive a lower-status person as feeling significantly less pain than a higher-status person. If the bias we have documented is really about status and the privilege or hardship that status confers, as Experiment 5 suggests, then experimentally manipulating the target person's status should moderate the racial bias.



**Figure 2. Mediation model for Experiment 5.** All coefficients are standardized betas. Coefficients in parentheses are betas when controlling for perceptions of hardship. † $p = .06$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . doi:10.1371/journal.pone.0048546.g002

## Methods

**Participants.** We recruited 302 participants via Mechanical Turk. Participants received \$0.50 for their participation. We excluded 23 participants for not being native English-speakers and/or American and 34 for failing the manipulation checks (not remembering the target's status or race, or giving the same answer for all questions in the study). Including these participants in our analyses changed the results below slightly—the pattern did not change but the difference between status conditions became marginally significant. The final sample of 245 varied in age ( $M = 31.73$ ,  $SD = 11.71$ ), ethnicity (84% White, 5% Black, 11% other), and gender (61% female).

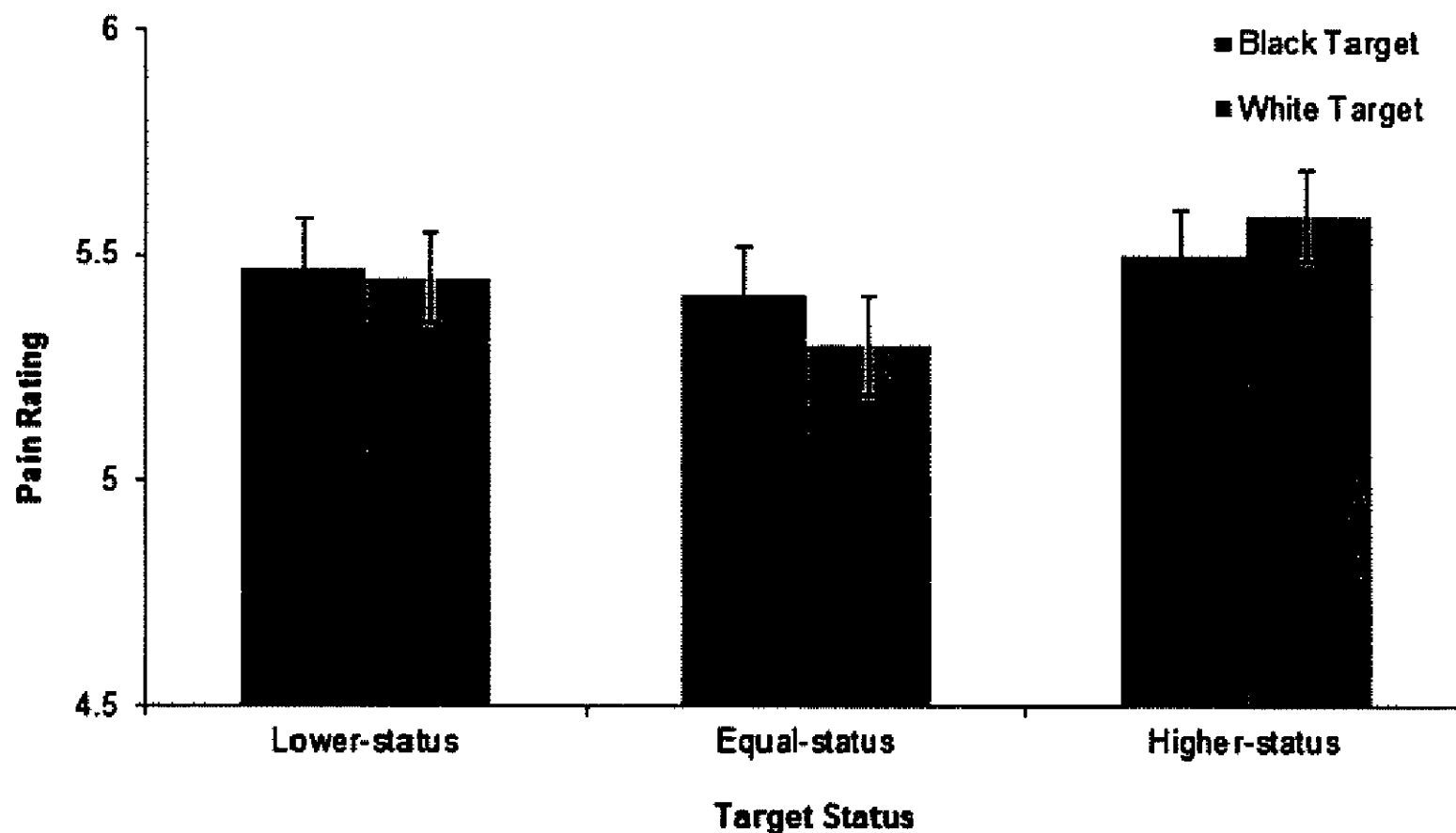
**Procedure.** We used eight pictures of middle-aged, Black and White target persons in business attire. Participants were randomly assigned to view a gender-matched target. They were told to imagine that this person was of lower-, equal-, or higher-status, as a manipulation of perceived privilege. Specifically, participants in the lower-status condition were told, "Imagine that you and Jordan both work at the same company. He is your subordinate. You dictate and oversee his day-to-day tasks. He depends on your recommendation for promotions and salary increases." Participants in the equal-status condition were told, "Imagine that you and Jordan are associates at the same company. You both have a manager who dictates and oversees your day-to-day tasks. You both depend on his recommendation for promotions and salary increases." Participants in the higher-status condition were told, "Imagine that you and Jordan both work at the same company. He is your superior. He dictates and oversees your day-to-day tasks. You depend on his recommendation for promotions and salary increases." We manipulated relative status rather than absolute status because status is relative—what is high status for one person may not be high status for another person. This manipulation complements the operationalization of privilege in Experiment 5, assessing perceived privilege through a closely related construct, social status [28]. Next, participants were asked to report how much pain they would feel if they accidentally stapled their own hand with an industrial stapler and how much pain this other person would feel if s/he accidentally stapled their hand with an industrial stapler. Participants made these ratings on 6-point scales (1-not at all painful, 6-extremely painful). Participants then answered questions about their perceptions of the target; namely, how similar they felt to the target person and how much

control the target person ostensibly had over their outcomes. Again, they made these ratings on 6-point scales. Lastly, participants answered demographic questions and manipulation checks (e.g., questions about the status and race of the target).

## Results and Discussion

We constructed a GLM to examine the effect of target race, target status, and their interaction, controlling for age, gender, race, and self-ratings of pain. Results revealed that target status indeed affected participants' ratings of the target's pain,  $F(2,230) = 3.78$ ,  $p = .02$ ,  $\eta^2 = .03$ . This effect was not moderated by target race,  $F < 1$ . See Figure 3. Our a priori (linear) contrast comparing lower-, equal-, and higher-status targets ( $-1\ 0\ 1$ ) was significant,  $F(1,230) = 5.91$ ,  $p = .02$ , such that lower status resulted in lower pain ratings. As can be seen in Figure 3, however, the means of participants in the same-status condition are comparable to the means of participants in the lower-status condition. Although we predicted that the means of participants in the same-status condition would fall in-between the means of participants in the lower- and higher-status condition, we think that our same-status prompt may have conveyed low-status; i.e., "you both have a manager who dictates and oversees your day-to-day tasks. You both depend on his recommendation for promotions and salary increases" may have communicated to participants that the target person (and they themselves) had low status.

**Secondary analyses.** We also examined participants' impressions of the target person. Analyses revealed that participants' ratings of how much control the target ostensibly had over their outcomes predicted pain ratings,  $F(1,234) = 7.24$ ,  $p = .007$ , controlling for self-ratings of pain, gender, age, and race. Participants attributed less pain to a target they perceived as having less status and power. Participants' ratings of how similar they felt to the target did not predict pain ratings,  $F < 1$ , suggesting that perceptions of status and power, but not similarity, influenced perceptions of the target's pain. Taken together, data from Experiments 5 and 6 suggest that people use information (or assumptions) about status to estimate others' pain. People seem to have a more general stereotype about low-status people; namely, that they are tough. What this means is that this bias may generalize to other low-status groups and that, as long as Black



**Figure 3. Pain ratings (estimated means and standard errors) for Experiment 6.**  
doi:10.1371/journal.pone.0048546.g003

Americans are perceived to be low-status in our society, their capacity for pain is likely to be underestimated.

### General Discussion

The present work demonstrates that people assume *a priori* that Blacks feel less pain than do Whites. This finding has important implications for understanding and reducing racial bias. It sheds new light on well-documented racial biases. Consider, for instance, the finding that White Americans condone police brutality against Black men relative to White men [15]. Although it may be that some Whites (and non-Whites) condone police brutality against Black men because they condone harm against Black men, it may also be the case that at least some people condone police brutality against Black men because they assume that Black men feel less pain. They may perceive the same violent act as less injurious in the case of Black victims. As another example, consider the finding that Whites are not distressed at seeing harm inflicted upon Black (vs. White) people [18]. While it may be that some Whites do not care about Black people and their pain, it may also be the case that at least some Whites fail to realize that Black people feel as much pain as White people. Although still alarming, this explanation is decidedly different from the claim that White people simply do not care about Black people.

In the context of healthcare, our findings imply that one reason Black patients are undertreated for pain may be that medical personnel assume that Black patients feel less pain than do White patients. On the one hand, this is a more charitable attribution than blatant racism and the notion that (at least some) medical personnel withhold medication from Black patients. On the other hand, this bias may pose a more pernicious problem. Interventions aimed at reducing racial disparities in healthcare will need to target not only treatment but diagnosis of pain and illness. To that end, less subjective pain assessment methods need to be developed. In addition, simple mental exercises, such as perspective-taking, could be used. Research has shown that taking the perspective of patients can effectively reduce racial bias in pain treatment and

improve Black patients' satisfaction [5,29], although our data suggest that such exercises will need to challenge assumptions about patients' status to be effective. The present work also implies that current "paternalistic" models of doctor-patient relationships—whereby patients depend on their doctors but not vice versa—may unwittingly increase bias in perceptions of patients' pain. In contrast, collaborative models, whereby doctors and patients depend on each other to reach mutually-satisfying outcomes, may reduce this bias. Future work should examine this possibility.

In sum, the present work finds that people assume that, relative to Whites, Blacks feel less pain because they have faced more hardship. At first blush, this assumption seems innocuous, even complimentary. It acknowledges the hardship Black people have faced and glorifies their strength and resilience. Nonetheless, this assumption leads to racial bias and potentially disastrous outcomes (e.g., condoning police brutality against Blacks, underestimating and undertreating Black patients' pain). Therein lies the problem.

### Supporting Information

**Table S1 Unadjusted means and standard deviations for self-ratings and ratings of others' pain.**

(DOCX)

**Table S2 Zero-order correlations between self-ratings and ratings of others' pain.**

(DOCX)

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## Author Contributions

Conceived and designed the experiments: ST KH AW. Performed the experiments: ST KH. Analyzed the data: ST KH. Contributed reagents/materials/analysis tools: ST KH AW. Wrote the paper: ST KH AW.

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# **EXHIBIT “3”**



# Racism and the empathy for pain on our skin

Matteo Forgiarini\*, Marcello Gallucci\* and Angelo Maravita

Department of Psychology, University of Milano-Bicocca, Milan, Italy

**Edited by:**

Nadia Bolognini, University of Milano-Bicocca, Italy

**Reviewed by:**

Nadia Bolognini, University of Milano-Bicocca, Italy

Marco Perugini, University of Milano-Bicocca, Italy

**\*Correspondence:**

Marcello Gallucci and Matteo Forgiarini, Faculty of Psychology, Milan Bicocca University, Piazza dell'Ateneo Nuovo, 1-20126 Milano, Italy.

e-mail: marcello.gallucci@unimib.it;

e-mail: matteo.forgiarini@gmail.com

Empathy is a critical function regulating human social life. In particular, empathy for pain is a source of deep emotional feelings and a strong trigger of pro-social behavior. We investigated the existence of a racial bias in the emotional reaction to other people's pain and its link with implicit racist biases. Measuring participants' physiological arousal, we found that Caucasian observers reacted to pain suffered by African people significantly less than to pain of Caucasian people. The reduced reaction to the pain of African individuals was also correlated with the observers' individual implicit race bias. The role of others' race in moderating empathic reactions is a crucial clue for understanding to what extent social interactions, and possibly integration, may be influenced by deeply rooted automatic and uncontrollable responses.

**Keywords:** racism, empathy, prejudice, pain, skin conductance

## INTRODUCTION

Empathy is the ability to understand and vicariously share the feelings and thoughts of other people (De Vignemont and Singer, 2006). Empathic feelings are fundamental for humans in social and interpersonal life because they enable human beings to tune their mental states to their social environment as well as to understand others' intentions, actions, and behaviors. One of the main sources of empathic feelings is the pain experienced by other human beings, and empathy for others' pain, in turn, regulates behavior among individuals and social groups. Although pain has been considered an intimate and private feeling, experimental data indicate that when people witness or imagine the pain of another person, they map the others' pain onto their brain using the same network activated during firsthand experience of pain, as if they were vicariously experiencing the observed pain (Hutchison et al., 1999; Carr et al., 2003; Wicker et al., 2003; Morrison et al., 2004; Singer et al., 2004; Bufalari et al., 2007; Lamm et al., 2007; Cheng et al., 2008). Furthermore feeling other people's suffering triggers pro-social behavior (Batson et al., 2002), promotes helping and encourages cooperation (Batson et al., 1997a). Conversely, lack of empathy for the pain of other human beings may lead to violence, abuse, and deterioration of interpersonal and intergroup relationships (Batson et al., 2002).

Empathic reactions to pain involve different layers of cognitive processing, with a predominant role played by automatic and implicit processes. Recent neurophysiological findings (Singer et al., 2004) have documented specific neuropsychological activations of the affective but not sensory components of the brain (the pain matrix in particular), leading to fast and automatic responses to the pain of others. Similarly, the vision of a needle penetrating the hand reduces the muscular motor response in the observer compatible with the locus of injection in the target person (Avenanti et al., 2005). Immediate empathic reactions, however, are deeply affected by social cues and individual differences. We now know that functional activity related to empathy reactions to others' feelings is affected by similarity between the witness and the person in pain (Krebs, 1975; Preston and de Waal, 2001; Lamm et al., 2010), by previous experience

in the same situation (Cheng et al., 2007), by observer's personality (Avenanti et al., 2009), by social relationship with the target (Singer et al., 2006), by familiarity for the target (Cialdini et al., 1997), gender (Eisenberg and Carlo, 1995; Baron-Cohen and Wheelwright, 2004), and age (Eisenberg and Morris, 2001). Most relevant for the present work, initial findings seem to suggest that empathy for others pain can be modulated by ingroup/outgroup social categorization based on race differences between the target and the onlooker (Cosmides et al., 2003; Xu et al., 2009; Avenanti et al., 2010).

If immediate empathic reactions differ depending on the race of the target person, this modulation may be rooted in personal characteristics of the person experiencing empathy, allowing for individual differences in the strength of the link between race and empathy. A weaker reaction to pain of other race members may be a consequence of personal prejudices and, more generally, racist attitudes toward the outgroup member. It is unlikely, however, that immediate physiological reactions are modulated by explicit and elaborated cognitive processes. We reckon that the possible link between racist attitudes and weaker empathy reactions for others' pain should operate at an implicit level, where prejudices and racism manifest themselves through fast and unconscious associations between negative evaluations and the target race (Greenwald et al., 1998). Along this line of reasoning, a recent independent TMS study (Avenanti et al., 2010) using a Blacks/Whites measure of implicit racist attitude (Greenwald et al., 1998), showed that despite the lack of explicit racial bias in the sample, participants with higher implicit ingroup preference presented greater corticospinal reactivity to ingroup models over outgroup models' pain.

The present research is aimed at providing experimental evidence that automatic, physiological reactions to other people's pain strongly depends on the race of the person in pain, such that pain received by members of other racial groups elicits a much weaker reaction compared with the pain suffered by members of the same group. By presenting participants with a series of video clips, in two experiments we tested whether the reaction to pain of Caucasian (Italian) observers was influenced by the race (Caucasian, Asian,

or African) of the person in pain. In the second study we replicate this finding and show that the moderation of empathy is correlated with the individual implicit racial biases.

Empathic reactions were inferred by the skin conductance responses (SCR; Purves et al., 2008) to observed video stimuli showing human subjects experiencing either harmless or painful somatosensory stimuli. The third-person exposure to pain activates a brain network called “pain matrix” (Peyron et al., 1999, 2000; Derbyshire, 2000) which includes the anterior cingulate cortex. Activity in the ACC is known to trigger variation in the skin conductance (SC; Purves et al., 2008), i.e., SC increases as a physiologic and autonomic response to someone else’s pain (Krebs, 1975; Levenson and Ruef, 1992; Morrison et al., 2004; Rae Westbury and Neumann, 2008). The triggering role of the ACC on SC is likely to have been selected to facilitate coping and adaptive responses (Devinsky et al., 1995; Ledowski et al., 2006). Furthermore, SC is considered one of the most reliable predictors of accurately assessed negative emotions in others, as it is associated with the emotional response rather than the mere pain recognition (Levenson and Ruef, 1992).

For the above reasons, the SCR was chosen as a likely marker of the automatic, emphatic response to the vision of painful stimuli inflicted in another person.

## EXPERIMENT 1

### MATERIALS AND METHODS

Stimuli were video clips showing a person subject to a painful stimulus or a harmless one. Each video started with a frame depicting a face of a female or a male actor holding a neutral expression. Subsequently the camera zoomed in on the actor’s hand which was touched by the experimenter alternatively by an eraser (harmless stimulus) or by a needle (painful stimulus). A total of 12 video clips were presented to each participant, featuring six different actors: Two Caucasian, two African, and two Asian actors. For each race, a female and a male actor was used, each actor subject to a painful stimulus and a harmless one.

In both experiments, participants sat in front of a computer monitor (Acer aspire 1360, monitor 15.4” TFT LCD) where the experimental stimuli were displayed. The distance between the monitor and participant’s face was almost 70 cm. Prior to stimulus presentation, two electrodes were applied on the forefinger and ring-finger of participant’s left hand in order to record the SCR. Participants were asked to relax, and carefully watch the stimuli presented on the monitor. During SCR recording, participants were listening to white noise with headphones in order to cover external auditory stimuli. The videos order was completely randomized. The experimenter, blind to stimuli presentation, started each video after visually checking that the online SCR was returned to a baseline level, in order to avoid response overlaps to consecutive stimuli. Following this procedure the inter stimulus interval was 15 s (range 10–20) across all participants. Each experimental session lasted almost 45 min, including behavioral and psychophysiological data gathering. All participants gave their consents to physiological recording and display of videos prior to the experiments. After the experiments ended, participants were fully debriefed regarding the nature of the stimuli and aim of the study.

Skin conductance responses was measured while the observers viewed the video stimuli. The difference between the SCR subsequent to a painful stimulus and the SCR subsequent to a

harmless stimulus was taken as a measure of empathy for pain (hereinafter empathic index, EI). Physiological data collection was performed using The UFI model 2701 BioDerm(R) SC meter. It is a stand-alone instrument which measures skin conductance level (SCL) and SCR. Skin conductance is measured using an Ag–AgCl electrode pair with the constant voltage (0.5 V) method. The SCR were recorded as the phase component of the SC activity, with a 10-Hz rate. Microsiemens ( $\mu$ s) are the measurement units. For all the participants, the SCR recordings were synchronized with the first video frame presented. The average response within a time window of 6.5 s post-stimulus was used as the observed variable for the analysis<sup>1</sup>. This interval was chosen based on the relevant literature (Purves et al., 2008) as the most appropriate and included the whole variation of SC following the stimuli. The SCR data analysis was performed using the SAS General Linear Model procedure. Unless otherwise specified, all the results discussed were obtained with a least squares repeated-measures ANOVA. The estimated means for the stimulus  $\times$  race interaction at different levels (1 SD below and 1 SD above the mean) of the continuous implicit association test (LAT) variable were obtained with an equivalent model estimated with the PROC MIXED SAS procedure (i.e., SAS procedure commonly used to estimate mixed effects linear models).

Ninety students of Milano-Bicocca University have been recruited. Three participants were excluded for problems in data saving; 5 participants were excluded because of uncooperative behavior during the experiment; 17 participants were excluded due to technical problems during the experiment. Out of the 65 remaining participants, four were excluded as outliers: SCR scores exceeding 2 SD from the overall average. A total of 61 participants (29 female) were therefore included in the analyses.

Participants were subjected to a 2 (stimuli: harmless and painful)  $\times$  3 (races of the target person: African, Caucasian, Asian)  $\times$  2 (blocks: first and second experimental block)  $\times$  2 (target gender: male and female) repeated-measure factorial design.

### RESULTS

Participants showed an overall significant EI: reactions to painful stimuli were significantly greater than reactions to harmless stimuli [ $F(1,59) = 40.85, P < 0.001$ ].

Crucially, the race of the actor experiencing the painful stimulus significantly moderated the EI [ $F(2,118) = 3.6, P = 0.03$ ]. Although experimental participants showed a significant EI for Caucasians [ $F(1,59) = 29.57, P < 0.001, \eta^2 = 0.333$ ], for Africans [ $F(1,59) = 7.52, P = 0.008, \eta^2 = 0.113$ ], and for Asian images [ $F(1,59) = 16.99, P < 0.001, \eta^2 = 0.223$ ], the empathic reaction for the Caucasians was significantly greater than that for the Africans [ $F(1,59) = 7.87, P = 0.006, \eta^2 = 0.117$ ; **Figure 1**]. Critically, there was no racial effect on the reaction to the harmless stimuli [ $F(2,118) = 0.09, P = 0.91$ ], a significant moderating effect of target person race was found on the reaction to painful stimuli [ $F(2,118) = 5.09, P = 0.007$ ]: Reactions to Caucasians painful stimuli were significantly greater than for Africans [ $t(118) = 2.91, P = 0.004$ ] but not than for Asian targets [ $t(118) = 1.72, P = 0.08$ ].

<sup>1</sup>This type of analysis is consistent with technical manual published by the producer of the UFI BioDerm System (<http://www.ufiservingscience.com/>).

As expected, the SCR responses significantly varied during the time for the painful stimuli, but not for the harmless stimuli. Specifically, the reactions to painful stimuli significantly reduced over time [block effect:  $F(1,59) = 44.58, P < 0.0001$ ] and the reactions to harmless stimuli were constant during the experiments [block effect:  $F(1,59) = 0.15, P = 0.70$ ]. No other effect was statistically significant.

## EXPERIMENT 2: IMPLICIT ATTITUDES AND EMPATHY FOR PAIN

### MATERIALS AND METHODS

The second experiment aimed at linking the empathic racial bias with the implicit racial prejudice. In addition to using the same paradigm used in Experiment 1, the experiment required participants to complete a race (Caucasians/Africans) IAT (Greenwald et al., 1998) and a Trait Empathy Scale (Mehrabian and Epstein, 1972). Specifically, we assessed to what extent individual differences in the implicit racial prejudice correlate with the difference between the EI for Caucasians with respect to EI for Africans.

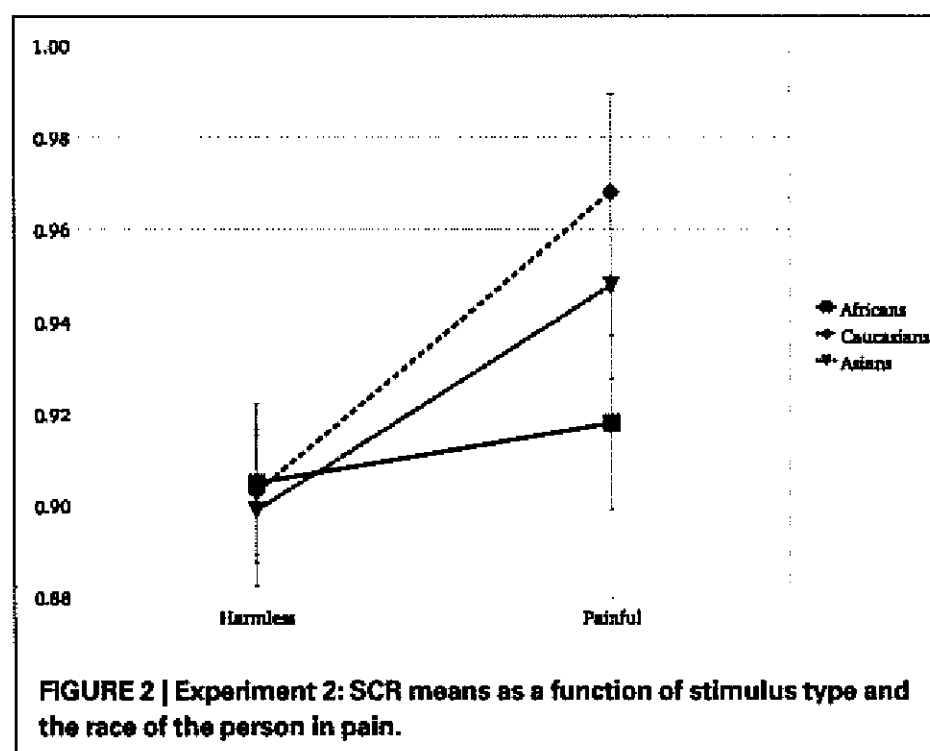
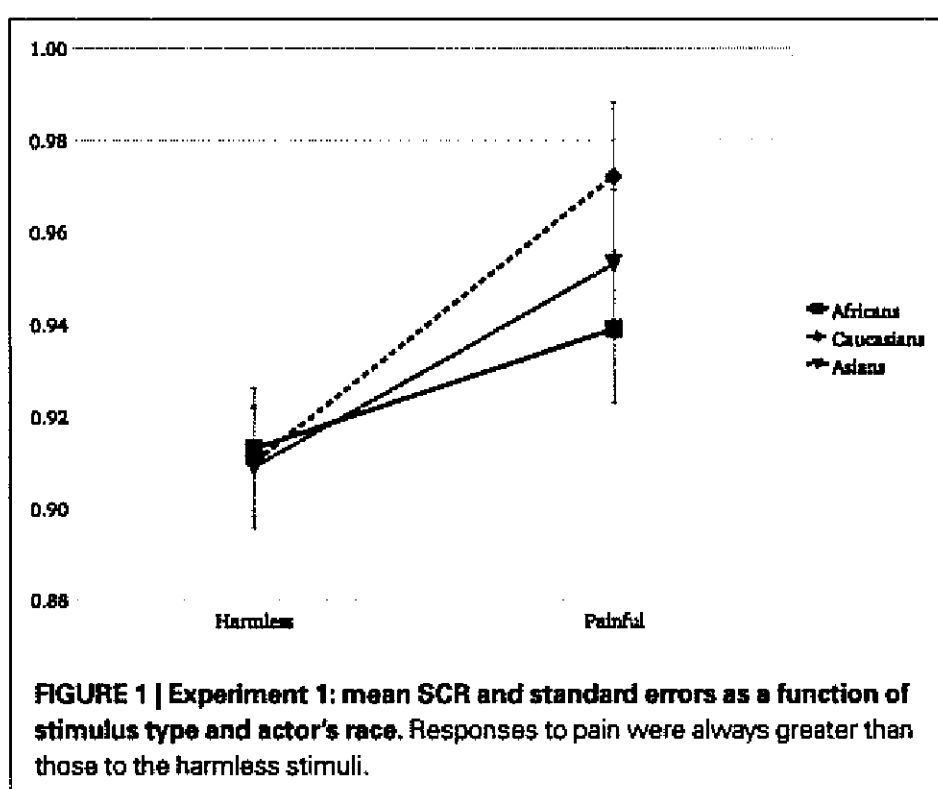
The IAT provides access to deep cognitive domains that is not reached by self-report measures (Greenwald et al., 1998). In the version used in this study, it provides a measure of implicit differential evaluation of Caucasian and African races. The IAT is based on participants' reaction times on a computer-based categorization task. The IAT assesses the association between two classes of stimuli by measuring differences in the response speed that participants show in the same task with exemplars from two categories. The task we used rates the association strength between positive and negative concepts with Caucasian and African races. On each trial of the race IAT we used, participants categorized a stimulus from one of four the categories: a photo of a Caucasian man, a photo a African man, a positive word (Joy, love, peace, wonderful pleasure, friend), or a negative word (agony, terrible, awful, bad, evil, war). In one block of trials, positive words required the same behavioral response as photos of Caucasian men. In another block of trials, positive words required the same response as photos of African men. IAT data were coded in the direction of association between positive words and Caucasian targets, i.e., as the difference in mean response latency

to trials in positive word-African targets block minus trials in the positive words-Caucasian targets block. Then, higher scores reflect strong associations between positive concepts and Caucasian race as well as strong association between negative concepts and African race. The fourth and seventh blocks consisted of 40 trials, all of the other blocks consisted of 20 trials. IAT scores reported in the text and used in the analysis are D scores. We calculated D scores using Nosek's SAS macro based on Greenwald et al. (2003). Individual IAT scores were used in the mixed model as a continuous independent variable. The simple slopes analysis was conducted to estimate the experimental effects at specific values of the IAT score. This was obtained by centering the IAT scores to 1 SD above the mean (and subsequently at 1 SD below) before entering the IAT score in the model (Aiken and West, 1991).

The experiment included 60 students of Milano-Bicocca University. Two participants were excluded for problems in data saving; five participants were excluded due to technical problems during the experiment. Out of these 53 participants, 6 were excluded as outliers (SCR scores exceeding 2 SD from overall average). A total of 47 participants (24 female) were therefore included in the analyses.

### RESULTS

Results replicated the overall stronger reaction to painful than to harmless stimuli [ $F(1,45) = 36.63, P < 0.001$ ]. Target race significantly moderated the EI [ $F(2,90) = 4.26, P = 0.01$ ; Figure 2]. The EI was significant for Caucasian [ $F(1,45) = 23.85, P < 0.0001, \eta^2 = 0.346$ ] and Asian [ $F(1,45) = 13.9, P = 0.0005, \eta^2 = 0.225$ ] but not for African actors [ $F(1,45) = 1.36, P = 0.24, \eta^2 = 0.029$ ]. Furthermore, the EI was statistically lower for Africans than for Caucasians [ $F(1,45) = 6.64, P = 0.01$ ] targets (Figure 2). As for Experiment 1, we observed no race differences in reactions for harmless stimuli [ $F(2,90) = 0.1, P = 0.9$ ] and a race significant effect on the reaction for other people's pain [ $F(2,90) = 7.55, P < 0.001$ ]. The SCR and the IAT scores were analyzed together. In the IAT used, greater scores indicate faster associations of "Caucasians" with positive concepts and "Africans" with negative concepts, thus a



stronger racial bias against “Africans.” The IAT scores were included in a GLM comprising the SCR values elicited only by Africans and Caucasians stimuli (the two races included in the IAT). The IAT scores were included in the model as a continuous independent variable. As typically found with the race IAT, Caucasian observers more strongly associated negative stereotypes with Africans than with Caucasians, [ $F(1,46) = 34.45, P < 0.001$ ]. Most importantly, the strength of the implicit race bias correlates with the reduced empathy for Africans’ pain. We found that the IAT scores of the observers significantly predict the moderating effect of race on the reaction for pain [ $F(1,43) = 4.52, P = 0.03$ ]. Simple slope analysis (Aiken and West, 1991) revealed that the greater the participant racial bias, the greater the difference between the empathic responses toward Caucasians with respect to Africans (Figure 3). Data show that participants with low race bias (1 SD below sample average) are not affected by the race moderating effect on the empathic responses to actors’ pain (Figure 3B). Participants EI is significantly greater than zero [ $F(1,45) = 5.22, P = 0.02$ ] but it’s not moderated by the race of the person in pain [ $F(1,45) = 0.14, P = 0.70$ ] and there are no differences in the overall reactions for Caucasians and Africans [ $F(1,45) = 1.28, P = 0.25$ ]. On the other hand, data show that for participants with an high race bias (IAT score 1 SD above the sample average) EI is significant greater than zero [ $F(1,45) = 14.52, P = 0.0001$ ] and the race of the person in pain significantly moderates the empathic reactions [ $F(1,45) = 13.29, P = 0.0003$ ; cf. Figure 3A].

The BEES empathy scale completed by participants had no significant effects on the SCR EI for any of three races we tested. Even though the BEES seems to account for the empathy related brain areas activation (Singer et al., 2004), this empathy scale seems to failed in prediction of SCR empathy related activations (Rae Westbury and Neumann, 2008).

As regards effects over time, reactions to painful stimuli significantly reduced over time [block effect:  $F(1,45) = 8.08, P = 0.006$ ] and the reactions to harmless stimuli were constant during the experiments [block effect:  $F(1,45) = 1.67, P = 0.20$ ]. These results replicated Experiment 1 results, suggesting that participants’ stimuli perception were reliable and precise during the entire experiment. No other effect was significant.

In order to rule out possible alternative explanations, we performed the analysis of SCR baseline values immediately before participants’ empathic reactions. The mean of SCR values during the 600-ms pre-stimulus was calculated. As expected, in Experiments 1 and 2 the full model revealed no relevant effects for all the experimental factors on the pre-stimulus SCR. These findings rule out the possibility that the observed responses associated with the painful and harmless stimuli were due to stochastic effects prior to stimulus presentation.

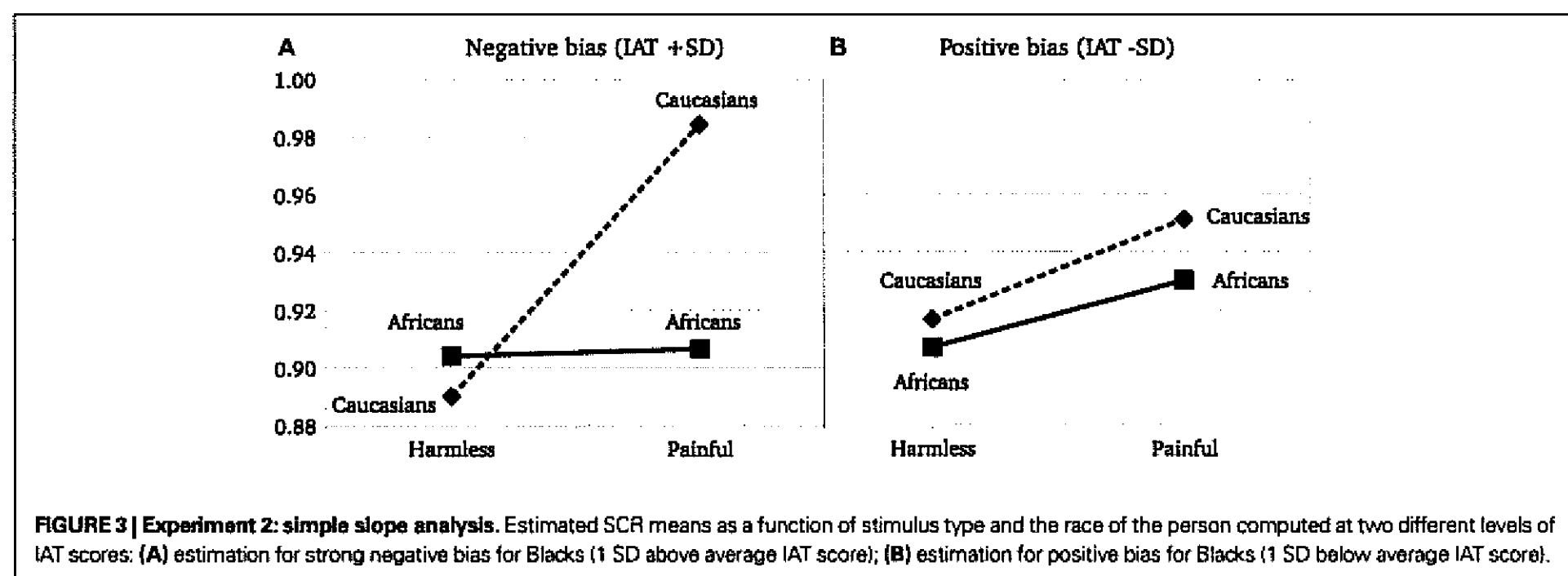
**EXPERIMENTS 1 AND 2: GENERAL DISCUSSION**

Taken together our findings demonstrate a clear pattern of responses to pain: the extent to which Caucasian observers share the pain experience of other people is affected by the race of the person in pain (Figure 4A). Before the stimulus onset, the SCR values show stochastic variations. After observing a painful stimulus administered to the target person, participants’ SCR values increase more for Caucasian targets than for target people of the other races, and the least for African targets.

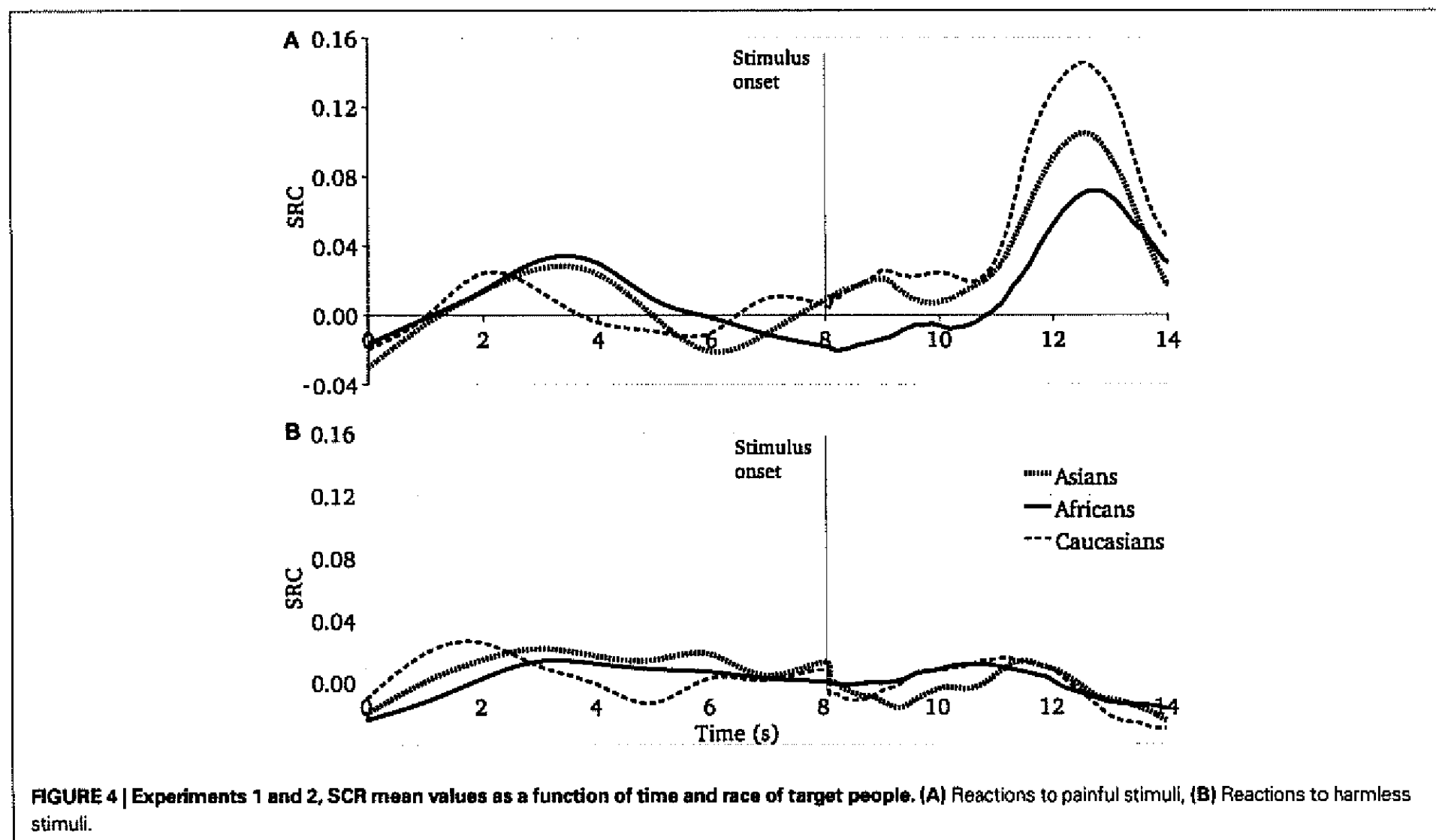
This race moderation pattern was not present in the reactions to harmless stimuli (Figure 4B). During the video stimuli perception, before and after the stimulus onset, participants’ responses are not affected by the race of the target people.

Given the link between automatic SCR response and emotional response to an observed situation, our data suggest that implicit and uncontrolled cognitive mechanisms lead Caucasians to reduce the automatic sharing of pain experience with African conspecifics at an automatic, early level of stimulus processing. These data concur with studies demonstrating deep connections between implicit social evaluations and neurological responses of the central nervous system. Research in the field of social neuroscience shows that in white participants the strength of amygdale activation to unfamiliar black vs. white faces is correlated with implicit but not explicit race bias measures (Phelps et al., 2000) and is related to different level of PFC activity (Cunningham et al., 2004).

The correlation between the empathic reactions as measured with the SCR and the IAT scores rules out alternative explanations of the effect based on some low-level perceptual features of the video stimuli presented. In fact, perceptual artifacts should have a general reduction of response to African actors for both harmless and painful stimuli,



**FIGURE 3 | Experiment 2: simple slope analysis.** Estimated SCR means as a function of stimulus type and the race of the person computed at two different levels of IAT scores: (A) estimation for strong negative bias for Blacks (1 SD above average IAT score); (B) estimation for positive bias for Blacks (1 SD below average IAT score).



whereas the moderation due to race is specifically found for painful stimuli<sup>2</sup>. As our data did not show any gender effect, mere similarity between actors and observers could not account for our results.

Interestingly, these data do not support the outgroup antipathy hypothesis (Brown et al., 2006) as they do not indicate increased affective reactions to stimuli of outgroup members in general. Moreover, the ingroup empathy hypothesis (Brown et al., 2006) does not seem to account for our effects either. A mere ingroup-outgroup categorization should lead to a significant reduction of empathy for Africans as well as Asian actors. Instead, the EI to Africans was lower than the one for Caucasians and Asian targets in both experiments. Furthermore, although one of the most pervasive categorizations in human society is gender, we never observed an interaction between the subject's gender and stimulus gender in the empathic responses (in both of the Experiments 1 and 2,  $P_s > 0.63$ ). Interestingly findings regarding a differential reaction to animals in pain (Rae Westbury and Neumann, 2008) suggest that empathic feelings in humans are moderated by the perceived phylogenetic similarity between the observer and the suffering animal. In a similar vein, data gathered in the two studies, seem to indicate that the closer the phenotypic aspect of the actor and the observer, the stronger the psychophysiologic empathic response to pain. Consistently with our data Batson et al. (1997b) found that university group membership (i.e., shared or unshared) had no impact on empathetic induction.

<sup>2</sup>Although our results are clear and in line with the theoretical expectations, further research is needed to understand the extent to which the effects we found could be replicated using different sets of stimuli and different physiological markers.

Conversely, Johnson et al. (2002) showed that the defendant race clearly affected the empathetic induction on a subsequent juror decision-making task. One reason for the divergent findings might involve the differential nature of the groups studied. One obvious explanation is that race might be more relevant or salient than university membership (Cunningham, 1986; Krebs, 1991). In a similar vein, Cosmides et al. (2003) noted that racial group membership defines coalitions and alliances during evolution and thus results in strong modulation of the neural substrates of emotional components of empathy.

Thus, previous research and our findings suggest that relevant group membership might play a significant role in empathetic induction. But how can people rate differences of race? And, what does really means being members of two different races? Since it is very difficult to directly measure the degree of genetic similarity with others, Krebs (1991) has suggested that one relies on discernible cues to make such judgments. Clearly, racial indicators (e.g., skin color, hair texture) would seem to qualify as powerful cues of kinship and genetic similarity. Furthermore recent findings showed that racial biases affect clinical pain management: Pletcher et al. (2008) provided evidence that physicians withhold opioid treatment from Hispanic, Black, and Asian patients compared to White patients, despite similar pain severity. The authors also noted this therapeutic disparity cannot be attributed to patient histories of alcohol and drug abuse as disproportionate treatment was most apparent in patients under the age of 12.

Moreover, our data support the idea that racial groups different from the perceiver could elicit a weaker sense of familiarity than a more similar conspecific. *Dehumanization Theory* (Fiske

et al., 2002) posits that some specific social groups are perceived as less human as they activate non-exclusively social emotions. The so called Stereotyped Content Model predicts that perceived outgroups' warmth and competence affect what emotions outgroups elicit in perceivers. Our data are consistent with this model and findings we reported seem to place race beside warmth and competence as a predictor of shared emotions. According to Singer's theory phenotypically distant outgroups may even elicit different patterns of brain activation, with particular regard to the medial PFC (Harris and Fiske, 2006), a region of cortex implicated in social cognition. This region responds to faces of people belonging to all social groups except extreme outgroups who activate, instead, a pattern consistent with disgust. Different degrees of dehumanization may therefore account for our findings that Caucasians could perceive Asians and Africans on different levels of humanization. Our findings indicate that even if we are not aware, our body and our mind use internalized knowledge to address reactions and activities they engage to deal with social and physical world. Future research may strengthen the link between *Dehumanization Theory* and differential empathic reactions to pain.

Clearly, relationship between race and empathy has many significant implications for real-world issues. Would racial differences decrease the probability that a Black teacher could empathize with a White student? Would racial similarity increase the probability that a White supervisor could empathize with a White subordinate? How a manager choose the person who has to be fired between a

Black and a White worker? Although the teacher, the supervisor and the manager might make an effort to empathize, they are likely to be biased and experience less empathy for Blacks involved in their choices.

Our findings suggest that the attitude toward other races may involve not only the overt self-report of the observer concerning attitudes about race but also their deep automatic and physiological reactions. These differential reactions may be elicited even at a very basic level, such as the reaction to physical pain of others. Such a fundamental racial differentiation, in turn, may bias complex activities and judgments over and beyond human consciousness. A precise assessment of other people's pain, in fact, is a necessary skill in many human activities, from medical decisions, rescue operations, police intervention, policy making and, in extreme circumstances, use of physical force and punishment. When all these activities involve people perceived as belonging to different races, a racial bias may hinder pain assessment with detrimental effects on individuals, groups, and their peaceful relationships.

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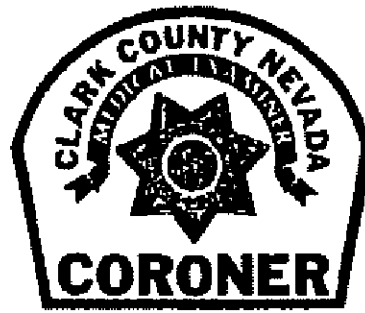
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# **EXHIBIT “4”**

Clark County Coroner  
1704 Pinto Lane  
Las Vegas, NV 89106  
(702) 455-3210



## AUTOPSY REPORT

Case Number: 10-04339

May 26, 2010

### AUTOPSY REPORT

PATHOLOGIC EXAMINATION ON THE BODY OF

**NIKHELAIS JAIDE COSTA**

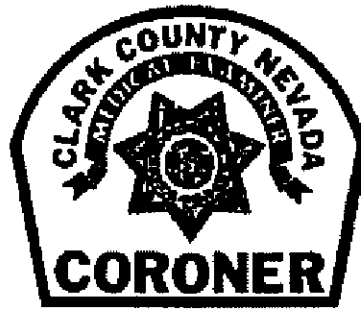
#### SIGNIFICANT ANATOMIC FINDINGS

- I. Respiratory System.
  - A. Bilateral pulmonary congestion and edema.
- II. Central Nervous System.
  - A. Cerebral edema.

#### OPINION

It is my opinion that this 8-year-old multi-cultured male, Nikhelais Jaide Costa, died as a result of acute lung injury due to anesthetic drug reaction. This 8-year-old male child was taken by his mother for an MRI as part of a work-up of a developmental disorder. During the MRI he was sedated with generic propofol (manufactured by APP) and Fentanyl. The MRI showed no brain parenchymal abnormality. After the MRI, he met discharge criteria and was waiting in the lobby with his mother. He began coughing and then had trouble breathing, and soon became airway obstructed and cyanotic. Attempts to intubate the patient were unsuccessful. He vomited and was suctioned. He was given Narcan and his oxygen saturation was greater than 90% on 60% oxygen. He was following commands and able to communicate. He was taken by ambulance to a local hospital. Because he continued to have increased work on breathing, he was sedated, then intubated on the second attempt, and placed on a mechanical ventilator. Chest x-ray showed diffuse left chest alveolar opacity and moderate right lower chest consolidation. On day two of the hospitalization he was evaluated by Cardiology

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## AUTOPSY REPORT

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for sinus bradycardia with an EKG and echocardiogram. On day six of the hospitalization, when sedation was weaned, the patient was more alert and awake and able to follow commands. His heart rate was in the low 50's to 60's. He was continued on the mechanical ventilator. CT of the neck on the fourth hospitalization day showed subglottic edema and/or stricture. Bronchoscopy on the seventh hospitalization day showed mild subglottic stenosis and moderate to severe tracheomalacia. Bronchoscopy on the eighth hospitalization day showed significant bronchomalacia of the left mainstem bronchus. On day nine of the hospitalization he was reported to have sinus bradycardia, but on day eleven his heart rate was in the 60's to 70's. On the 11<sup>th</sup> hospitalization day, he had a severe bradycardic hypoxic event. Resuscitative measures were instituted, but he progressed to bradycardia asystole, and he was pronounced dead. The past medical history shows that he was a 28<sup>th</sup> week premature infant, spending two months in the newborn intensive care unit. Toxicological testing of postmortem blood was consistent with his hospitalization medications; and vitreous fluid electrolytes were within normal limits. Postmortem culture of CSF was negative. Postmortem culture of heart blood was negative. Postmortem culture of right lung tissue showed rare growth of coagulase-negative *Staphylococcus*. Postmortem testing of respiratory and Influenza viruses was negative.

**CAUSE OF DEATH:** It is my opinion that this 8-year-old multi-cultured male, Nikhelais Jaide Costa, died as a result of acute lung injury due to anesthetic drug reaction.

**MANNER OF DEATH:** ACCIDENT.

A handwritten signature in black ink, reading "Timothy F. Dutra MD PhD". The signature is written in a cursive style.

Timothy F. Dutra, MD, PhD  
Medical Examiner  
Clark County, Nevada  
TFD/amu