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Los Angeles

A Plea for Justice:

Racial Bias in Pretrial Decision Making

A dissertation submitted in partial satisfaction of the
Requirements for the degree of Doctor of Philosophy
in Social Welfare

by

Matthew Lawrence Mizel

2018

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ABSTRACT OF THE DISSERTATION

A Plea for Justice:

Racial Bias in Pretrial Decision Making

by

Matthew Lawrence Mizel

Doctor of Philosophy in Social Welfare

University of California, Los Angeles, 2018

Professor Laura S. Abrams, Chair

African American defendants are more likely than Whites to be charged punitively by prosecutors at arraignment, detained pretrial, and sentenced harshly via plea bargain. These disparities contribute to mass incarceration, because 95% of cases adjudicate by plea bargain rather than a jury trial. Prior research has found that implicit racial bias (unconscious attitudes and stereotypes about race) and dehumanization bias (thinking of others as less human) are associated with racial disparities in areas of the justice system outside of pretrial decision making. This study poses the following questions: (1) Are implicit racial bias, explicit racial bias, implicit dehumanization bias, and/or explicit dehumanization bias associated with pretrial decision making (for each of initial charge, bail, target plea sentence, minimum acceptable plea sentence, and charge reduction)? (2) What are the relative influences of implicit racial bias,

explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias? A total of 148 students from the UCLA School of Law read a fictional criminal case vignette and then made pretrial decisions in the role of prosecutor. The race of the defendant was randomly assigned to be either African American or White while all other aspects of the vignette were held constant. Higher anti-African American/pro-White implicit dehumanization bias was associated with a less punitive initial robbery charge for the White defendant. Greater anti-African American/pro-White implicit racial bias was associated with three outcomes for the White defendant in a direction contrary to implicit bias theory: setting a higher bail amount, targeting a longer prison sentence for the plea bargain, and being less likely to offer a charge reduction. In supplemental analyses, participants who believed in the biological basis of race were less likely to charge the White defendant more punitively. The results suggest that implicit dehumanization bias and implicit racial bias influence pretrial decision making but that only implicit dehumanization bias contributes to racial disparity. Future research could test these results with working prosecutors and defense attorneys to expand the generalizability of the findings.

The dissertation of Matthew Lawrence Mizel is approved.

Todd M. Franke

Aurora P. Jackson

Michael C. Lens

Laura S. Abrams, Committee Chair

University of California, Los Angeles

2018

Dedication

For all the kids in juvenile hall who went through pretrial
while students in my creative writing class.

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I have much love for InsideOut Writers for providing me with the opportunity to teach creative writing in the juvenile halls, probation detention camps, DJJ facilities, and California state prisons. Thanks to the staff, volunteers, and board members for supporting me and my fellow teachers. I hope I have had as much an impact on my students as they have had on me, because they changed my life. If not for them, I would not be studying for a Ph.D. or have selected this dissertation topic.

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- Mizel, M. L.**, & Abrams, L. S. (2017). What I'd tell my 16 year old self: Criminal desistance, young adults, and maturation. *International Journal of Offender Therapy and Comparative Criminology*.
- Mizel, M. L.**, Miles, J. N., Pedersen, E. R., Tucker, J. S., Ewing, B. A., & D'Amico, E. J. (2016). To educate or to incarcerate: Factors in disproportionality in school discipline. *Children and Youth Services Review*, 70, 102-111.
- Abrams, L. S., **Mizel, M. L.**, Nguyen, V., & Shlonsky, A. (2014). Juvenile reentry and aftercare interventions: Is mentoring a promising direction? *Journal of Evidence-Based Social Work*, 11(4), 404-422.

Policy Briefs and Technical Reports

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Chapter One: Introduction

“In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury...to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.” –
Amendment VI to the United States Constitution (U.S. Const. amend VI)

Despite this statement in the Bill of Rights, today approximately 95% of all criminal cases in the United States end in a plea bargain and not in a trial by jury, albeit with the defendant’s consent (Hofer, 2011; Rosenmerkel, Durose, & Farole, 2009; Wright, 2005). This was not the manner in which the American legal system initially operated as plea bargains were rare until after the Civil War (Rakoff, 2014). They became much more common in the second half of the 19th century and continued to increase throughout the 20th century (Fisher, 2000). In the plea bargain process, the prosecution and defense negotiate the charges and punishment to which the defendant pleads guilty, eliminating the jury trial. In exchange for the guilty plea, the prosecutor offers a reduced charge and/or sentence (Smith & Levinson, 2012). Because prosecutors set the initial charges, which often have mandatory minimum sentences, they have greater leverage in the negotiations and, hence, more sentencing discretion than the defense (Bibas, 2004; Hofer, 2011; Johnson, 2003).

In 2015, African Americans comprised 13% of the population of the United States (United States Census Bureau, 2016). However, they made up 27% of those who were arrested in 2015 (U.S. Department of Justice, 2016) and 36% of those in state or federal prison in 2014 (Carson, 2015). As African Americans move through the justice system, they experience

increasingly more punitive outcomes than the rest of the population. Not only are there racial disparities in arrest rates, but these disparities persist through later stages of the criminal justice system (Baumer, 2013). Yet until recently, scant research has focused on the pretrial component of the judicial system (Baumer, 2013; Forst, 2010). This newer research has found evidence of racial disparities even when controlling for both legal and extra-legal factors (Kutateladze, Lynn, & Liang, 2012). These extralegal factors are defined as perceived characteristics of the defendant and victim that are legally irrelevant, such as race (Hagan, 1973).

Consequences of Pretrial Decisions

Pretrial proceedings impact the outcome of a criminal case in several ways (Spohn, 2000; Ulmer, 2012). When the prosecutor determines the initial charges in a criminal case, this frames all the subsequent pretrial (and potentially trial) proceedings. Initial charges serve as the basis for bail, and defendants who are detained pretrial (because they are held without bail or do not pay bail) are more likely to be incarcerated as a result of the case and receive longer sentences, even when controlling for relevant legal factors (Albonetti, 1991; Baumer, 2013; Spohn, 2015; Williams, 2003; Wooldredge, Frank, Goulette, & Travis, 2015; Zatz, 1987). Charges are linked to recommended sentences and sometimes mandatory minimum sentences, so the prosecutor has more influence over the potential sentence than the judge. A greater number of charges are associated with longer post-conviction sentences (Shermer & Johnson, 2010; Wilmot & Spohn, 2004). The increase in the number of charges that carry mandatory minimums has enhanced the power of prosecutors, reducing the sentencing discretion available to judges (Smith & Levinson, 2012). As a result, the prosecutor through setting the initial charges anchors the negotiation for any subsequent plea bargaining (Bibas, 2004; Kang et al., 2012).

Pretrial decisions appear to contribute to racially disparate court outcomes that have harmful consequences for African Americans relative to White defendants.¹ Recently, the District Attorney of New York, the National Institute of Justice, and the Vera Institute collaborated to study prosecutorial discretion in over 220,000 cases from New York City in 2010-2011. The researchers found that charge seriousness, prior record, and offense type, the factors most relevant to the legal elements of a case, were the strongest predictors of case outcomes (e.g., prison sentence). However, the defendant's race was a statistically significant correlate of case outcome even when accounting for the above legal factors. Across all offenses, African American defendants were more likely to be detained than Whites at arraignment (i.e., remanded or have bail set and not met), to receive a custodial sentence as a result of the plea bargaining process, and to be subsequently incarcerated (Kutateladze, Andiloro, Johnson, & Spohn, 2014).

Additional studies have also found racial disparities in pretrial proceedings. Prosecutors filed more charges against African American defendants and were less likely to offer them court diversion programs (Bishop, Leiber, & Johnson, 2010; Martin, 2014; Schlesinger, 2013). African Americans were more likely to be detained pretrial as a result of not being offered release without bail or not paying bail (Demuth, 2003; Freiburger, Marcum, & Pierce, 2010; Henning & Feder, 2005). Furthermore, African American defendants accepted plea deals that were more likely to include incarceration and for longer periods of time (Johnson, 2003; Kutateladze et al., 2014; Spohn & Fornango, 2009). Spohn (2009) found that race had an

¹ This dissertation focuses on African Americans and Whites, but certainly race is not a construct with only two categories. This decision reflects the limited amount of research beyond these two groups in the theoretical areas of this study, implicit racial bias and dehumanization bias. Future research will expand beyond the African American/White binary.

indirect effect on sentence severity through its effect on pretrial status resulting in worse outcomes for African Americans. Furthermore, disparate treatment in pretrial proceedings appear to be additive in producing disadvantage for African Americans in final case outcomes (Baumer, 2013; Spohn, 2015; Wooldredge et al., 2015; Zatz, 1987).

Pretrial decisions augment entry into the justice system, which can have dramatic consequences. Once an individual is declared guilty of a felony, whether by trial or plea bargain, that person can lose rights and opportunities pertaining to voting, employment, housing, education, public benefits, and jury service that relegates them to the status of second class citizen (Alexander, 2012). For example, a felony drug conviction decreases: (1) access to jobs and related health benefits, (2) access to public housing due to the 1996 policy initiative titled *One Strike and You're Out*, (3) access to health benefits such as food stamps due to PRWORA (Personal Responsibility and Work Opportunity Reconciliation Act of 1996), (4) access to jobs, licenses/permits, and military service due to PRWORA, (5) access to financial supports for higher education due to the Higher Education Amendments of 1998, (5) the right to vote in many states (Iguchi, Bell, Ramchand, & Fain, 2005).

Pretrial detention can impact the lives of those accused of a crime regardless of the outcome of their case. In a study of defendants who were released pretrial but at varying times, those held in jail for three or more days were 2.5 times less likely to have employment after release than those detained less than three days while controlling for relevant factors including prior employment. In addition, those in jail for three or more days pretrial indicated a 40% greater likelihood of residential instability than those detained less than 3 days (Holsinger, 2016). Pretrial detention also has long-term economic implications as it appears to prevent individuals from connecting with the formal employment sector. Controlling for baseline factors, defendants

released pretrial were 5% more likely to have employment within two years of the bail hearing and 4% more likely to have any income than those detained pretrial. Three to four years after the bail hearing, released defendants were 4% more likely to file a tax return and received 66% more in the earned income tax credit. These results derived from those released being less likely to have a criminal conviction and from being more likely to be employed in the formal job market. Because pretrial detention was associated with criminal conviction even when controlling for relevant legal factors, pretrial release was a factor in long-term employment and salary outcomes (Dobbie, Goldin, & Yang, 2016).

These consequences may motivate innocent people to plead guilty to minor crimes simply to get out of jail (Bibas, 2004; Van Cleve, 2016). In a study of bail in Philadelphia, the effect of pretrial detention was not statistically significant for “strong-evidence” crimes (DUI, drugs, illegal firearms) but was strong and significant for “weak-evidence” crimes (assault, vandalism, and burglary). Those detained pretrial for a weak-evidence crime were 7% more likely to plead guilty and averaged an additional 18 months of incarceration. These crimes have higher rates of wrongful conviction, so these results suggest that pretrial detention increases the likelihood that an innocent person will plead guilty (Stevenson, 2016). In addition, as prosecutors can overcharge to set the parameters of the criminal proceedings and a potential plea bargain negotiation, doing so can motivate innocent defendants to plead guilty to even a serious crime to avoid a lifetime imprisonment or death penalty sentence (Alexander, 2012; Blume & Helm, 2014; Redlich, 2016). Of the 1,793 people exonerated in the United States between 1989 and September 1, 2016, 283 of them (15.8%) had pled guilty. Of them, 122 (43.1%) were African American, and 102 were (36.0%) White. Those 283 exonerated people had been convicted of the following crimes: homicide (42%), sexual assault (26%), other violent crimes

(14%), and non-violent crimes (18%) (The University of Michigan Law School, 2016). This suggests that pretrial proceedings may lead to innocent people pleading guilty to avoid a worse outcome (Rakoff, 2014), and that this may disproportionately impact African Americans.

Pretrial Decision Making and Social Work

Most of our clients are people who have crawled their way up from poverty or are in the throes of poverty. Our clients work in service-level positions where if you're gone for a day, you lose your job. People in need of caretaking — the elderly, the young — are left without caretakers. People who live in shelters, where if they miss their curfews, they lose their housing. Folks with immigration concerns are quicker to be put on the immigration radar. So when our clients have bail set, they suffer on the inside, they worry about what's happening on the outside, and when they get out, they come back to a world that's more difficult than the already difficult situation that they were in before.

— Scott Hechinger, a senior trial attorney with Brooklyn Defender Services (Pinto, 2015)

This suffering while in jail and its prolonged aftereffects are a few of the consequences for many of those detained pretrial awaiting the adjudication of their criminal case. As previously described and will be elaborated further, pretrial detention is not equal across racial groups. Moreover, detention is only one element of pretrial proceedings that impacts those in the criminal justice system and that has racial disparities. Therefore, the social problem of differential treatment of African Americans during pretrial criminal proceedings in the justice system is important to social work. The Code of Ethics of the National Association of Social Workers defines the role of social work as follows:

The primary mission of the social work profession is to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and

empowerment of people who are vulnerable, oppressed, and living in poverty. A historic and defining feature of social work is the profession's focus on individual well-being in a social context and the well-being of society. Fundamental to social work is attention to the environmental forces that create, contribute to, and address problems in living.

(National Association of Social Workers Delegate Assembly, 2008)

The goal of this study is to enhance human well-being by identifying and measuring racial bias in the legal system, which can serve as a step towards reducing unjust treatment of African Americans. More specifically, African Americans experience disproportionately harsher treatment in pretrial proceedings, resulting in more punitive outcomes. This impact on human well-being includes increased likelihood of being detained pretrial, increased hardship upon release pretrial, and increased likelihood of receiving a worse plea deal. This study addresses social justice for those who are “vulnerable, oppressed, and living in poverty” (National Association of Social Workers Delegate Assembly, 2008). Not only does this social problem impact African Americans as a group, but it also affects the individual well-being of the defendant in the social context of the justice system and the social context of race.

This dissertation is designed to be the first study in a series concerning pretrial decision making. The early studies will identify which psychological processes are factors in pretrial decision making and attempt to determine their contribution to racial disparities. In so doing, that information will provide a road map to the cognitions that shape the way prosecutors make determinations, suggesting which ones need to be addressed to reduce racial disparities. Subsequent studies will then test interventions to lessen the impact of those biases, hopefully reducing racial disparities. The implementation of those interventions is an opportunity especially suited for social workers, because they are skilled in affecting attitude and behavior

change on the micro level as well as modifying systems and organizations on the macro level. In addition, through both training and experience, social workers are knowledgeable about racial disparities and social justice, providing them with the background to execute such challenging work. Finally, this would present social work with an opportunity to have a seat at the justice system table, which has been lacking in recent years (Abrams, 2013).

The story of Kalief Browder elucidates the potential impact of pretrial decision making and its relevance to social work. On May 15, 2010, New York City police arrested 16-year-old Browder for allegedly stealing a backpack and punching a man in the face. He was charged as an adult with robbery, grand larceny, and assault, and the judge set bail at \$3,000. His family could not afford the \$300 bond to post bail, so Browder was sent to the jail at Rikers Island. He stayed there for over 1,000 days awaiting trial as the Bronx court system was overbooked and slow. While Browder was confined at Rikers, both guards and other detainees beat and abused him, including one brutal attack caught on security cameras that appeared on news outlets. Browder spent approximately two of those three years at Rikers in solitary confinement. He tried to commit suicide six times but never received mental health treatment. In January, 2013, Browder was offered release on time served if he pled guilty to two misdemeanors. His other option was to go to trial where he faced a possible 15-year prison term. Browder refused to take the plea deal, maintaining his innocence. On May 30, 2013, after 31 pretrial court dates, the prosecution dropped the case because the victim had returned to Mexico. Browder was released at the age of 20. Two years later on June 6, 2015, Browder committed suicide. According to those who knew him, he had not seemed to recover from his detention at Rikers (Gonnerman, 2014; Schwartz & Winerip, 2015). Although Browder's story had a more tragic outcome than

most, it exemplifies some of the impacts of pretrial proceedings and the dangers of pretrial detention. The decisions made by prosecutors can have very powerful consequences.

Prior Approaches to Racial Disparity in Pretrial Decision Making

Scholars have primarily used the focal concerns perspective to analyze pretrial decision making. According to this perspective, three focal concerns guide the thinking of prosecutors when making case decisions: (1) the defendant's blameworthiness and the harm caused to the victim, (2) the protection of the community, and (3) the likelihood of conviction (Spohn, Beichner, & Davis-Frenzel, 2001; Steffensmeier, Ulmer, & Kramer, 1998). First, prosecutors seek greater punishment for the defendant based on the defendant's culpability and the severity of the harm to the victim. Second, the pretrial process is part of the legal system that aims to prevent the defendant from harming the community in the future as well as deterring others from committing crime (Steffensmeier et al., 1998). Third, prosecutors focus on the likelihood of conviction based on the ways that the defendant, the victim, and the incident will be evaluated by the judge and potential jurors (Spohn et al., 2001). Prosecutors balance these complicated focal concerns while working with incomplete information about the defendants and the cases. To address such uncertainties as determining which defendants are dangerous, they enlist a "perceptual shorthand" that can include attributions based on such a characteristic as race (Farrell & Holmes, 1991; Steffensmeier et al., 1998).

Prosecutors exercise discretion in six ways in the pretrial process: the initial screening/charging, pretrial release/bail, dismissal, charge reduction, plea bargaining, and sentencing constraints (Kutateladze et al., 2012). With each, they make subjective evaluations with limited information, and many of those decisions require an assessment of the defendant. Research suggests that at each of those pretrial steps prosecutors utilize racial stereotypes to

make determinations about the defendant's culpability and danger to the community. Prosecutors combine both legally relevant factors about the case and the defendant with extralegal defendant characteristics as they balance the three focal concerns in their pretrial decision making. As a result, factors such as charge seriousness, prior record, and offense type are associated with pretrial decisions and case outcomes, but race is a factor, too (Kutateladze et al., 2014).

Innovations of This Dissertation

Although the focal concerns perspective provides insight into the factors that shape pretrial decision making, it does not fully address the process of racial bias. Two theories from social psychology, implicit racial bias and dehumanization bias, provide insight into the functioning of race in judgement and decision making that could provide greater explanatory nuance, potentially buttressing the focal concerns perspective. According to implicit bias theory, unconscious attitudes and stereotypes, including about race, influence human thought and behavior (Blair, 2002; Greenwald & Krieger, 2006; Kang et al., 2012; Rudman, 2004). Implicit racial bias factors into perceptions of a defendant's guilt and potential danger, because implicit associations exist between African Americans and such cognitions as culpability (Graham & Lowery, 2004), hostility (Devine, 1989), and possessing weapons (Eberhardt, Goff, Purdie, & Davies, 2004; Nosek, Smyth, et al., 2007). Therefore, implicit racial bias may influence pretrial prosecutorial discretion through charging decisions, particularly whether to charge and for what crimes, and strategy, including bail recommendations and plea bargain negotiations (Smith & Levinson, 2012). Despite the extensive research about implicit racial bias during the last 30 years, scholars have not measured its role in pretrial decision making.

Dehumanization bias is a process through which people perceive a person or group as less than human (Haslam, 2006) and exists in both implicit and explicit forms (Haslam & Loughnan, 2014). People with high implicit dehumanization bias are more likely to perceive African American youth as older than their chronological age, and therefore, believe them more culpable for a crime. In addition, police officers who indicated on measures a greater implicit dehumanization bias against African Americans more frequently used higher levels of force against them in actual police records (Goff, Jackson, Di Leone, Culotta, & DiTomaso, 2014). Accordingly, dehumanization bias may influence pretrial decision making, because explicit dehumanization of a defendant predicted recommending longer sentences and less support for rehabilitation efforts (Viki, Fullerton, Raggett, Tait, & Wiltshire, 2012). Infracumanization is a more subtle form of dehumanization in which people associate secondary emotions, such as sympathy and jealousy, with being human (Demoulin et al., 2004; Leyens et al., 2003; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007). Infracumanization could influence legal decision making; for example, it has been associated with being less likely to forgive others for past violence (Tam et al., 2007; Wohl, Hornsey, & Bennett, 2012). As with implicit racial bias, prior research has not tested whether dehumanization bias is a factor in pretrial decision making.

Although research has documented racial disparities in pretrial decision making, this dissertation is the first known study to test whether implicit racial bias and dehumanization bias are factors in pretrial decision making. To do so, this study will measure racial bias (both in implicit and explicit forms) and dehumanization bias (also in both implicit and explicit forms) to assess the influence of each. Only a few studies have simultaneously assessed whether implicit racial bias and dehumanization bias are factors in any outcome, so this methodology adds a layer of innovation through its analysis. In conclusion, the purpose of this dissertation study is to

make a step forward in the understanding of the factors that contribute to racial disparities in pretrial decision making.

Research Questions

This dissertation poses the following questions:

1. Are implicit racial bias, explicit racial bias, implicit dehumanization bias, and/or explicit dehumanization bias associated with pretrial decision making (for each of initial charge, bail, target plea sentence, minimum acceptable plea sentence, and charge reduction)?
2. What are the relative influences of implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias?

Hypotheses

The following hypothesized results answer the two research questions.

Research question #1: Implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias are predicted to be associated with pretrial decision making in the following ways:

1. With an African American defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be positively associated with more punitive initial charges, greater bail amounts, longer target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.
2. With a White defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be negatively associated with more punitive initial charges, greater bail amounts, longer

target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.

Research question #2: Implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will have the following relative relationships within the full model:

1. Implicit racial bias will be a significant factor in outcomes when controlling for explicit racial bias.
2. Implicit dehumanization bias will be a significant factor in outcomes when controlling for explicit dehumanization bias.
3. Implicit dehumanization bias will be a more powerful factor in outcomes than implicit racial bias.
4. Explicit dehumanization bias will be a more powerful factor in outcomes than explicit racial bias.
5. Explicit racial bias will be the weakest predictor for outcomes.

Overview of Dissertation

Chapter Two will examine the current state of knowledge about racial disparities in pretrial decision making through a comprehensive literature review. It will identify the six steps in pretrial decision making in which prosecutorial discretion shapes the direction of the case. The evidence about whether racial disparities exist in each of those steps will be assessed. The dominant theoretical explanation for how prosecutors make decisions, namely the focal concerns perspective, will be reviewed. Finally, the chapter will include an assessment of the research to identify the gaps in the understanding of racial disparities in pretrial decision making.

In Chapter Three, the paper will introduce research on implicit racial bias and dehumanization bias and their possible roles in pretrial decision making. These theories will be used to identify the dissertation research questions and the hypotheses about their answers. In Chapter Four, the participants in the research study will be described, including the criteria for inclusion. The research materials needed for the study will be identified and detailed along with the procedure for the experiment. Finally, the analytic procedure that will be used to determine the results based on the data will be described. Chapter Five will detail the results of the study based on the statistical analyses. Chapter six, the final chapter of the dissertation, will conclude with a discussion of the results. Each research question will be answered, and the results will be placed into the context of the research in the field.

Chapter Two: Literature Review

Overview of Chapter

This chapter will begin with a description of the mechanics of the pretrial process and provide additional background information on pretrial detention. Next, the chapter will define the six areas in which prosecutorial discretion shapes pretrial decision and review the research on racial disparities within these areas. The impact of these steps on case outcomes, a process known as cumulative disadvantage, will be detailed to further elucidate the role of race in the pretrial process. The focal concerns perspective, which is the most commonly used framework to explain pretrial decision making, will be described as well as evidence in support of it. Finally, gaps in the literature will be identified.

Pretrial Procedure

Criminal court processes vary slightly between state and federal jurisdictions as well as among local courts, but the overarching structure functions in a similar manner. After arrest, the first formal court appearance is an arraignment, during which the filing prosecutor represents the people. The defendant first hears all the charges against him or her and has the opportunity to enter a plea. The three most common pleas are not guilty, guilty, and *nolo contendere*, referred to as "no contest." Those who enter a plea of guilty or no contest proceed to a sentencing hearing. Most people plead "not guilty," so a judge then determines the conditions for pretrial release, if appropriate. Defendants can be released without financial conditions or assigned a bail amount to pay to secure release. A non-financial release can take one of three forms: own recognizance, unsecured bond, and conditional release. With a release on own recognizance, the defendant agrees to appear in court in the future as required. A financial release, also called bail, can be paid in four different ways. Defendants most commonly pay bail through a surety bond in

which a bail bonds company signs a promissory note for the full amount to the court and the defendant pays a fee that is normally equal to 10%. The bond company usually requires collateral, and this fee is not refunded even if the defendant is exonerated or charges are dropped. A judge sets the bail amount after receiving a recommendation from the prosecutor and a rebuttal from the defense. Prosecutors base their suggestion on a combination of discretion and a schedule that takes into account the current criminal charges and the defendant's prior criminal history. In setting bail, the judge considers the risk of flight and the need to protect public safety. Some states, such as New Jersey and Alaska, do not charge money bail for most defendants but instead use a risk assessment tool to determine whether to release pretrial (Doyle, 2017). Other states are considering this approach, including California.

The next step in the pretrial process is the preliminary hearing during which the handling prosecutor takes over the case from the filing prosecutor. In special prosecutor units, such as white collar or gang crimes, one prosecutor may handle the entire case. The judge hears evidence to determine whether probable cause exists to believe that a crime occurred and that the defendant committed it. If so, the case is sent to trial. It may take days, months, or years to begin a trial. At any point from arraignment up until the verdict in the trial, the prosecution and defense can agree to a plea deal. During the pretrial proceedings, several rounds of negotiation may occur. In a plea agreement, the defendant pleads guilty and waives the right to trial in exchange for reduced charges and/or punishment, including a shorter sentence.

Background on Pretrial Detention and Bail

Pretrial detention refers to keeping a defendant confined from arrest until disposition, which is the final legal determination of the case, in order to ensure appearance in court and/or preventing him or her from committing another crime (Stevenson, 2016). In mid-year 2014,

American jails confined 744,600 people, of which 467,500 (63%) were being held pretrial. The total population was slightly less than the peak of 785,500 inmates at mid-year 2008, but since 2000, the jail inmate population has increased by 123,500 from 621,149. Importantly, 95% of that growth was from those being held pretrial. During the entire year period ending on June 30, 2014, jails admitted 11.4 million people. White inmates represented 47% of the total jail population, African Americans accounted for 35%, and Latino/as comprised 15% (Minton & Zeng, 2015).

Many jail detainees have not been denied bail but rather have not paid it. In the most recent survey of the 75 most populous counties in 2009, 38% of felony defendants were detained until case disposition, but only 10% of those had been denied bail. They were unable to meet bail despite the median amount being \$10,000, which would have required \$1,000 payment for a bond (Reaves, 2013). Of defendants in Philadelphia whose bail was less than or equal to \$500, only 51% were able to pay the \$50 deposit required for release within the three days after arrest, and 25% remained detained at disposition (Stevenson, 2016). From 1990 to 2009, the percentage of pretrial releases that enlisted financial conditions rose from 37% to 61%, including an increase from 24% to 49% in the use of bail bond company's surety bonds (Reaves, 2013). Bail costs in most cases are not extremely high, but rather the act of being required to pay bail prevents most people from obtaining pretrial release. In effect, monetary bail itself denies release (Demuth, 2003).

Research shows that defendants who are detained pretrial resolve their cases sooner and are more likely to be found guilty. In data from the 75 most populous counties, the median time for detained defendants from arrest to adjudication (determination of guilt or innocence) was 69 days with a 77% conviction rate; for those released it was 163 days with a 59% conviction rate

(Reaves, 2013). Overall, an increasingly large number of Americans are held in jail pretrial as a result of not paying the financial requirements for release. Because defendants who reside in jail pretrial are more likely to settle their case sooner and to plead guilty, the monetary cost of bail impacts a criminal case beyond pretrial detention.

Prosecutorial Discretion

Prosecutors have full discretionary power, and oversight comes from within the department. They set the charges, have the power to dismiss them, and have the ability to reduce initial charges to lesser counts. Prosecutors use this power along with the ability to reduce sentencing recommendations during plea bargain negotiations, and in the vast majority of cases judges accept the negotiated plea deal without revision (Bibas, 2009). As a result, prosecutors have a powerful influence over criminal punishment (Shermer & Johnson, 2010). Kutateladze et al. (2012) defined the steps in which prosecutorial discretion operates:

- Initial screening—the prosecutor determines whether to accept a case for prosecution and the initial charges to file;
- Pretrial release or bail procedure—the prosecutor recommends whether a defendant is detained in jail while the case is pending and whether to offer bail and at what amount;
- Guilty plea—the prosecutor negotiates any plea bargain
- Sentencing—the prosecutor’s prior pretrial decisions affect the type and length of punishment for a convicted person;
- Dismissal—the prosecutor decides whether a case or charge is dismissed at any point after the initial screening; and
- Charge reduction—the prosecutor determines if the severity or the amount of charges are reduced.

Dismissal and charge reduction are less likely to occur, and charge reduction within the context of a plea negotiation is addressed within plea bargain research. As a result, few studies examine dismissal and charge reduction. In addition, they are also both extremely difficult to study methodologically because of the limited amount of available data on them. Given their smaller presence in the pretrial process, this project will focus on the other four steps.

Sentencing guidelines provide recommendations for incarceration length for convictions on charges. Lawmakers have expanded them in both the state and federal criminal justice systems over the past 40 years, and as a result the conviction charge has a great influence over the sentence length. This is particularly true due to the increase in mandatory minimum sentences, which set incarceration terms that judges must follow. Simultaneously, sentencing regulations have moved from indeterminate (punishment offered a range of time incarcerated that could be shortened with parole) to determinate (those convicted received a set release date often followed with no supervision/parole in the community), which also confines judges' choices. This combination of an increase in sentencing guidelines and determinate sentencing has constrained the role of the judge and placed more power with the prosecutors (Ball, 2006; Shermer & Johnson, 2010; Spohn, 2000; Tonry, 1996; Wilmot & Spohn, 2004). In a 1996 survey of federal judges and chief probation officers before many sentencing guidelines had been implemented, 86% agreed (and 57% strongly agreed) that "sentencing guidelines give too much discretion to prosecutors." In addition, 75% of judges and 59% of chief probation officers thought that the prosecutor had "the greatest influence on the final guideline sentence" (Johnson & Gilbert, 1997). The power that prosecutors hold in setting and negotiating charges has a great influence on punishment and functions as the discretion previously held by judges (Piehl &

Bushway, 2007). The following sections review the research on racial disparities where prosecutorial discretion operates.

Appropriate Legal Factors

It is important to recognize that despite existing racial disparities in pretrial decision making, research consistently finds that relevant legal factors have the greatest bearing on pretrial proceedings and sentencing. Numerous studies have reported that charge severity and prior criminal history of the defendant are the strongest factors in predicting pretrial detention. A more violent crime and a larger number of charges are associated with an increased likelihood of pretrial detention. Researchers consistently find a similar positive relationship for criminal history, which can be measured as prior arrests and/or prior convictions. Prior arrests can reflect racial disparity, though, as African Americans are more likely to be arrested and have charges dismissed (Kutateladze et al., 2014). Other legally relevant elements can play a role, too. If the offense occurred while the defendant was on probation or parole, he or she was more likely to be detained pretrial (Reitler, Sullivan, & Frank, 2013). Harm to the victim can also be a factor in increased likelihood of pretrial detention (Wooldredge et al., 2015). Spohn (2009) found that pretrial detention was less likely when those accused had more education, were employed, and were married. In total, these results are consistent with the criteria that are considered legally relevant for determining whether to detain in jail someone accused of a crime. According to §3142(g) of the Bail Reform Act of 1984, judges are to consider the nature of the offense, the offender's past conduct and current legal status, the offender's financial resources, and the offender's family ties, employment, and community ties (Spohn, 2009). These factors consistently appear in studies as predictors of pretrial detention. Moreover, this pattern continues with sentencing, because crime severity and criminal history are commonly the two

strongest predictors (Kramer & Ulmer, 2009). While relevant legal factors increase the odds of pretrial detention and more punitive sentencing, the subsequent sections provide evidence that race can also be a factor in prosecutorial discretion.

Initial Screening/Charging

During the initial screening/charging, the prosecutor decides whether to prosecute the case based on the evidence and then determines the charges to file. Research on initial screening suggests that prosecutors are more likely to pursue stronger legal action against African American defendants than Whites. One of the first choices for a prosecutor is whether to offer pretrial diversion. In this process, the prosecutor defers or dismisses a charge as long as the defendant successfully completes a community-based diversion program, allowing the defendant to avoid a criminal record. In a nationally representative sample of cases from 1990 to 2006, prosecutors offered this option primarily for drug-use crimes and for those without a prior conviction, occurring in 8% of all cases. African Americans had 28% lower odds of receiving pretrial diversion than Whites with similar legal characteristics. Among drug defendants with no prior record, African Americans had 43% lower odds of pretrial diversion than Whites (Schlesinger, 2013). Based on juvenile court case files over a period of 21 years (1980 through 2000) in one county in a Midwestern state ($n = 5,722$), prosecutors were more likely to refer African American than White youth to juvenile court than release or send them to a court diversion program (Bishop et al., 2010). Thus, in these two studies prosecutors were more likely to decide to charge an African American defendant criminally as opposed to offer diversion from court.

If diversion is not offered, prosecutors determine the extent to charge a defendant, which may also be influenced by the defendant's race. Examining cases where the defendant was

accused of murder in Chicago from 1994-1995 ($n = 672$), Martin (2014) included the race/ethnicity (African American, Latino, and White) of both the defendant and the victim. African American defendants charged with killing White victims were prosecuted more severely (received more charges) than all other defendant–victim pairings. Conversely, African American defendants charged with killing African Americans and Latino/as charged with killing Latino/as were prosecuted the least severely. This suggests that the race of the defendant and the victim, at least in cases of murder, may influence prosecutors' charging behavior (Martin, 2014).

Moreover, in a study in Minnesota of over 4,000 felony convictions, prosecutors were more likely to charge African Americans more severely across all crimes (Miethe, 1987). These charging disparities can have an important effect as African Americans are more likely to plead guilty if more charges are filed while Whites are less likely (Albonetti, 1990). Rehavi and Starr (2014) found evidence for the downstream effect of initial charge when looking at federal cases from 2006-2008 in which African American and White men were arrested for violent, property/fraud, weapons, and public order offenses. Courts punished African Americans with sentences 10% longer than comparable White defendants, and most of the disparity derived from prosecutor's initial charging decisions. Prosecutors were 1.75 times more likely to file charges that carried mandatory minimum sentences with African American defendants, which explained more than half of the difference in sentencing (Rehavi & Starr, 2014).

However, research on domestic violence has produced conflicting results on the role of race in charging. In a study of 2,948 misdemeanor assault cases against an intimate partner in Hamilton County (Cincinnati), Ohio during 1993, 1995, and 1996, prosecutors were more likely to drop a case against African Americans than Whites even after controlling for socioeconomic status variables (i.e., education, employment, public assistance, residential stability, and

household composition) (Wooldredge & Thistlethwaite, 2004). In a different analysis of 4,178 domestic violence cases (both misdemeanor and felony) in a Tennessee county, though, prosecutors were more likely to dismiss the case for White defendants than people of color (98% of whom were African American) while controlling for income and employment (Henning & Feder, 2005). It is possible that the variation in results appeared due to the difference in the sample (misdemeanor versus misdemeanor and felony) or in the included control variables.

Overall, these studies provide evidence that African Americans are more likely to be charged for a crime when referred for prosecution. Nevertheless, evidence suggests that additional extralegal factors may influence prosecutor decision making, such as socioeconomic status or race of the victim. This first decision in pretrial is important because it establishes the direction of the case and sets boundaries for the ultimate case outcome. With federal cases, charging carries particular weight due to the greater number of sentencing guidelines. Regardless of the jurisdiction, the initial charges constrain future options in sentencing through both plea bargain and judicial judgment (Shermer & Johnson, 2010).

Pretrial Release and Bail

Among felony defendants from state court in the 75 most populous counties in 1990, 1992, 1994, and 1996, African Americans were 66% more likely to be detained pretrial than Whites, even when controlling for type of crime and prior criminal history. It is important to note that African American and White defendants received the same average bail amount, but African Americans were less likely to pay that bail. Their odds of detention were double when assigned bail. The strongest predictor of being released on bail was the amount; higher bail associated with a lower likelihood of release. Including gender in the analysis, White women were the least likely to be detained while African American men were 18.3% more likely to be

held pretrial than all other defendants (Demuth & Steffensmeier, 2004). Additional studies of data sets of existing cases found that African American defendants were less likely than white defendants to be released on their own recognizance (Freiburger et al., 2010; Henning & Feder, 2005). In total, these studies suggest that African American and White defendants on average receive the same bail settings but that the impact was disparate: African Americans were more likely to remain in jail pretrial.

Examining race alone without other demographic variables may only paint a partial picture, though. For example, race itself was not a factor in an Ohio jurisdiction, but when the interaction of race, gender, and age was analyzed, African American men age 18-29 were less likely to be released on one's own recognizance, had higher bail amounts, and had a greater likelihood of incarceration in comparison to other groups (Wooldredge, 2012). This study is one of many about pretrial decisions that will be detailed in this proposal that did not find a main effect for race but reported an interaction of race, gender, and age. This intersectionality does not undermine that race is a factor but rather reveals that the effect of race can vary with those other demographic or identity factors (Cho, Crenshaw, & McCall, 2013).

Guilty Plea/Plea Bargaining

As stated earlier, 95% of criminal cases are settled with a plea bargain (Hofer, 2011; Rosenmerkel et al., 2009; Wright, 2005). Stemen (2016) found that 76% of guilty pleas do not involve a charge reduction, indicating defendants often plead to the most severe charge. Defendants who are people of color are 18% more likely to plead guilty than Whites. Young people of color and men are more likely to plead guilty than all other groups (Stemen, 2016). In a study of misdemeanor marijuana cases in New York City, African American defendants were less likely to receive reduced charge offers and more likely to receive plea offers with custodial

punishment compared to White defendants. In the final model that included the most legal factors, evidence, arrest circumstances, and court actor characteristics, race became non-significant. However, the authors argued that those factors in themselves were racially biased (e.g., African Americans were more likely to have an arrest history from the “stop-and-frisk” policy) (Kutateladze, Andiloro, & Johnson, 2016). These two studies examined plea bargaining separately from other parts of the pretrial process. In the later section of this chapter about cumulative disadvantage, additional research about plea bargains will be reviewed and provides more conclusive information on racial disparities.

Sentencing

Both federal and state justice systems have sentencing guidelines for criminal convictions on specific charges that provide a minimum and maximum term of incarceration. Prosecutors apply mandatory minimums much less often when defendants plead guilty in a plea bargain; those who are convicted at trial are more likely to receive a mandatory minimum sentence. Prosecutors seem to negotiate away the mandatory minimum charge or sentence in exchange for a guilty plea. Importantly, this implies that prosecutors use the threat of a longer mandatory minimum sentence as leverage in plea bargain negotiations (Ulmer, Kurlychek, & Kramer, 2007). In the pretrial process, enhancement charges can be added to the list of offenses. In a study in Maryland of violent offenses ($n = 19,995$), African Americans were 9% more likely to be assessed a firearm penalty; it resulted on average in an additional 41 months of prison (Farrell, 2003). In Florida, a defendant can be classified as a Habitual Offender and receive sentencing enhancements if they have two prior felony convictions and the current conviction was committed either while serving a Department of Corrections sentence or within 5 years of a prior conviction. Of all those eligible to be an Habitual Offender, African Americans were 22%

more likely than Whites to be classified as one (Caravelis, Chiricos, & Bales, 2011).

Researchers have also studied the downward and upward departures from sentencing guidelines. In sentencing for negotiated pleas in Pennsylvania ($n = 109,931$), African Americans relative to Whites were 24% less likely to receive a beneficial downward departure but were 32% more likely to receive a punitive upward departure (Johnson, 2003). These studies illustrate some of the ways that prosecutorial discretion leads to sentencing disparities for African Americans.

Substantial assistance departure, also referred to as a §5K1.1 departure, refers to a reduction in federal sentencing below the mandatory minimum when the defendant has provided “substantial assistance” in the form of information that leads to the prosecution and conviction of another person. Because prosecutors have latitude in the application, this creates opportunity for variance in prosecutorial discretion due to extralegal factors (Hartley, Maddan, & Spohn, 2007). In a sample from three federal district courts ($n = 2,801$), African Americans were less likely to receive a substantial assistance departure, and in particular they were 58% less likely to receive one in drug cases. In cases in which the defendant plead guilty, African Americans were significantly less likely to receive a substantial assistance departure (Spohn & Fornango, 2009). Examining federal sentencing data nationwide on those convicted of crack-cocaine and powder-cocaine offenses in 2000 ($n = 10,107$), prosecutors were more likely to provide substantial assistance departures for White defendants than African Americans. Moreover, African American men were less likely than White men, White women, and African American women to receive a substantial assistance departure sentence (Hartley et al., 2007). As a result of these disparities in prosecutorial discretion, African Americans received longer sentences in federal cases as they were less likely to receive a downward departure from sentencing guidelines and White defendants were more likely to receive a substantial assistance departure (Wilmot &

Spohn, 2004). In summary, the prior research has indicated that prosecutors have great leeway in the pretrial handling of a case, which shapes sentencing. In particular, prosecutors applied penalties of mandatory minimums for habitual offenders more for African American defendants and granted fewer substantial assistance departures for them. This prosecutorial discretion contributes to racial disparities in sentencing outcomes across both state and federal jurisdictions.

Pretrial Decision Making and Cumulative Disadvantage

Unequal treatment during the pretrial stages of the judicial process appears to contribute to a process of cumulative disadvantage, resulting in racial disparities in determination of guilt and sentencing outcomes (Baumer, 2013; Spohn, 2015; Zatz, 1987). Cumulative disadvantage is defined as “a sequence of undesirable events whereby the occurrence of earlier negative events increases the odds of subsequent negative events” (Wooldredge et al., 2015, p. 189). In pretrial criminal proceedings, disadvantageous processes in early stages of a case may accelerate bias and increase the likelihood of later negative and racially disparate outcomes, including incarceration in prison (Sutton, 2013). The prior sections of this proposal introduced evidence about racial disparities for African Americans in pretrial proceedings. This section will review the research that addresses the relationships between racial disparities in pretrial decisions and the outcomes of guilt determination and punishment.

Pretrial detention in particular has a strong relationship with later case outcome. Based on 2,158 felony cases from Washington, D.C., Albonetti (1991) reported that African Americans received longer sentences than Whites and that assigning bail (as opposed to release on own recognizance) was associated with more severe sentences for them but not Whites. Importantly, she was the first to find that the effect of bail was mediated through race. In a sample of 412 cases from Florida, Williams (2003) also found that pretrial detention was associated with the

case outcome of imprisonment; it was not associated with being found guilty, though. African American men (versus African American women, White men, and White women) were more likely to be incarcerated after adjudication and were sentenced to a longer incarceration (Williams, 2003).

Using over 400,000 cases from Philadelphia and Miami-Dade County, Dobbie and colleagues (2016) found that pretrial detention impacted guilt determinations. African American defendants who were released pretrial were 10% less likely to be found guilty and 12% less likely to plead guilty. White defendants who were released pretrial were 26% less likely to be found guilty and 20% less likely to plead guilty. Nevertheless, released African American defendants were less likely to be rearrested prior to case disposition than released White defendants. The authors argued that pretrial release benefits the defendant in two ways. First, seeing detained defendants in jail uniforms and shackles may bias judges or jurors at trial. Second and more consequential, pretrial detention significantly weakens the defendant's bargaining position during plea negotiations, because it increases the pressure on a defendant to plead guilty, especially given the personal and economic costs of being in jail. As a result, most of the reduction in determination of guilt for those released pretrial was due to the change in plea and not from conviction rates at trial. Furthermore, those released pretrial received more favorable plea bargain deals as they were substantially more likely to be convicted of a lesser charge and of fewer total offenses. In summary, pretrial detention has consequences for case outcome, appearing to motivate defendants to plead guilty, and that detrimental impact is greater for African American defendants than others (Dobbie et al., 2016).

Spohn (2009) used a subset of 1142 cases from three federal district courts to look at case outcome in the context of established bail standards. The specific criteria to be considered when

determining bail according to the Bail Reform Act of 1984 are the offender's dangerousness, community ties/stakes in conformity, the offender's access to financial resources, the offender's criminal history, and the seriousness of the crime. When controlling for these factors, African American men were two times more likely than White men to be detained pretrial, 3.7 times more than White women, and three times more than African American women. In addition, African Americans (but not Whites) who were on probation or parole at the time of the offense were more likely to be detained pretrial, while Whites (but not African Americans) who were employed or had some college or a college degree were less likely to be held pretrial. Across all races, detained defendants received a sentence that averaged 8 months longer. Defendant race had a direct effect on pretrial detention and an indirect effect on sentence length through its effect on pretrial detention. African Americans were more likely than Whites to be held pretrial, and defendants who were detained received more severe sentences than those who had not been (Spohn, 2009).

In a comprehensive analysis of race in the pretrial process, Kutateladze, Andiloro, Johnson, and Spohn (2014) used a data set of 159,206 misdemeanors and 26,069 felonies prosecuted in 2010-2011 by the District Attorney's Office of New York. They found that African Americans were 48% more likely than Whites to be detained pretrial. Detained defendants were 33% as likely to have their cases dismissed in comparison to those not in jails. Focusing on misdemeanor plea deals (felony plea bargain information was not available), African American defendants were 70% more likely to make a plea deal than Whites and 30% more likely to be punished with incarceration. Pretrial detention was associated with an outcome of incarceration, and African Americans were more likely to be held in jail pretrial, contributing to the racial disparity in incarceration. Overall, African American status had a direct effect on

pretrial detention, receiving a custodial plea offer, and a more severe sentence as well as an indirect effect on receiving a plea bargain offer with prison time and increased severity of sentence (Kutateladze et al., 2014).

In an extensive examination of the direct and indirect effects of race in one urban jurisdiction ($n = 3,459$), Wooldredge et al. (2015) found courts set bail amounts \$3,500 higher for African American men 18-29 than any other group, and their probability of pretrial detention was 0.68 in comparison to 0.22 for all others. In this study, because African Americans were less likely to hire attorneys and defendants who hired attorneys were less likely to be detained pretrial, this resulted in an indirect race effect. Also, African Americans were more likely to have previously been imprisoned, and defendants with that history were more likely to be detained pretrial. The indirect effects in total accounted for a 75% increase in the odds of pretrial detention for African Americans in comparison to Whites, and the direct effect accounted for a 25% increase. For African American men 18-29, the indirect effect was a 63% increase in the odds of detention, and the direct effect equaled 48%. In analyzing case outcomes in this same study, African Americans were 40% more likely than Whites to be convicted and sentenced to prison, and African American men 18-29 were 50% more likely relative to all other defendants. The increased likelihood of sending African American men 18-29 to prison was associated with their higher bail amounts than other defendants, those greater bail amounts increasing pretrial detention, and the direct effects from race (Wooldredge et al., 2015).

Collectively, the research indicates that defendant race both directly and indirectly influences guilt and sentencing through pretrial decisions, especially pretrial detention. African American defendants are more likely than Whites to be held in jail through the pretrial process. This detention results in longer sentences, creating a “detention penalty” that is greater for

African Americans (Spohn, 2009). In addition, the race of the defendant also has a direct effect on sentencing, adding to the cumulative effect. The state and federal legal system sentences African Americans more harshly than Whites as a result of both their race and their disadvantaged treatment during pretrial. Thus, prosecutorial discretion exercised in particular through pretrial detention produces worse sentencing outcomes for African Americans.

Summary of Studies on Pretrial Decision Making

The following table provides a summary of the results in the studies about racial disparities in pretrial decision making.

Pretrial Decision	Summary
Initial screening	<ul style="list-style-type: none"> • African Americans are less likely to be offered diversion from criminal court. • African Americans receive a greater number of charges. • Mixed evidence on handling of domestic violence cases.
Bail and Pretrial Release	<ul style="list-style-type: none"> • African Americans are more likely to be detained pretrial. • African Americans are less likely to be released on own recognizance. • Most research indicates African American and White defendants are assigned equivalent bail amounts, but some indicates African American defendants receive higher bail, especially young men. • African Americans are less likely to pay bail even when no racial differences existed in bail amounts. This contributes to their greater pretrial detention.
Guilty Plea	<ul style="list-style-type: none"> • African Americans are more likely to plead guilty than Whites.
Sentencing	<ul style="list-style-type: none"> • African Americans are more likely to receive sentencing enhancements for weapons or being a repeat offender. • African Americans were 24% less likely to receive a downward sentencing departure but were 32% more likely to receive an upward one. • African Americans are less likely to receive a substantial assistance departure.
Cumulative Disadvantage	<ul style="list-style-type: none"> • African Americans are more likely to be detained pretrial. As a result, they are more likely to be: <ul style="list-style-type: none"> ○ Adjudicated guilty ○ Incarcerated ○ Sentenced for a longer term

Focal Concerns Perspective

The focal concerns perspective is the most commonly used framework to explain racial disparities in pretrial decisions and sentencing. Darrell Steffensmeier (1980) developed this perspective, and he and others have since elaborated on it primarily using large data sets of case outcomes (Spohn et al., 2001; Spohn & Holleran, 2001; Steffensmeier, Kramer, & Streifel, 1993; Steffensmeier et al., 1998; Ulmer, 1997; Ulmer & Kramer, 1996). According to this perspective, three focal concerns influence prosecutors in making sentencing decisions: (1) the defendant's blameworthiness and the degree of harm caused to the victim, (2) protection of the community, and (3) the likelihood of conviction (Spohn et al., 2001; Steffensmeier et al., 1998). The first element of blameworthiness originates in the law; punishment of the defendant increases based on the person's culpability and the severity of injury and harm. This reflects the notion that the punishment should fit the crime and coincides with the retributive philosophy in the American legal system. Offense seriousness, as measured by defendant culpability, and harm caused are the most significant factors in sentencing. Additional factors besides offense severity that influence views of blameworthiness are biographical factors (including criminal history, which increases the perception of blameworthiness and risk), prior victimization by others (which can mitigate perceived blameworthiness), and the defendant's role in the crime (including whether the defendant was a leader, organizer, or a follower) (Steffensmeier et al., 1998).

The second focal concern, protection of the community, also relies on perceptions of the defendant but is conceptually different as it emphasizes the need to incapacitate the defendant and deter potential offenders. Some scholars argue that sentencing is an arena of bounded rationality in which court actors proceed with the goal of protecting the public and preventing recidivism while facing great uncertainty about the defendant's future behavior (Albonetti, 1991;

March & Simon, 1958). Court actors base their assessments of the dangerousness of the defendant (defined as the risk for future crime) and the risk of recidivism on attributions derived from the nature of the offense, case information, the defendant's criminal history, the details of the crime (e.g., use of a weapon), and the characteristics of the defendants (such as employment, drug dependency, education, and family history) (Steffensmeier et al., 1998).

The third focal concern for prosecutors (and not judges) is the likelihood of conviction (Spohn et al., 2001). This “downstream orientation” makes them inclined to attempt to predict the ways that the defendant, the victim, and the incident will be viewed and evaluated by the judge and jurors (Frohmann, 1997). Due to this uncertainty, prosecutors also utilize a “perceptual shorthand” to address uncertainties linked to race, gender, and age attributions (Farrell & Holmes, 1991; Steffensmeier et al., 1998). Not only does this perceptual shorthand rely on stereotypes to assess which defendants are dangerous, but it also incorporates stereotypes of real crimes and credible victims (Spohn et al., 2001). Because Spohn et al. (2001) were studying sexual assault cases, they addressed the way prosecutors focused on the crime and the victim. Nevertheless, extending focal concerns to prosecutorial discretion by definition includes the defendant. Thus, prosecutors weigh the legally relevant indicators of case seriousness and offender culpability in addition to the background, character, and behavior of the defendant, victim, the relationship between the two, and the willingness of the victim to cooperate as the case moves forward (Spohn et al., 2001).

Although Steffensmeier et al. (1998) initially applied the focal concerns perspective to understand judicial discretion, subsequent work has expanded the application of this perspective to prosecutors (Beichner & Spohn, 2005; Franklin, 2010b; Spohn, Beichner, & Davis-Frenzel, 2001; Ulmer et al., 2007). The focal concerns are relevant to pretrial processes because

prosecutors have to make decisions with uncertainty about the initial screening/charging, pretrial release/bail, dismissal, charge reduction, plea bargaining, and sentencing constraints (Demuth, 2003; Kutateladze et al., 2014). At each step during pretrial, prosecutors make subjective evaluations about the defendant's culpability, danger to the community, and likelihood of conviction that are informed by attributions linked to defendant characteristics (Kutateladze et al., 2014; Steffensmeier et al., 1998). This suggests that prosecutors enlist both legally relevant indicators of defendants' prior criminal behavior as well as extralegal defendant characteristics to assess future danger and potential for change. This can include relying on stereotypes of African Americans as being more dangerous and blameworthy, resulting in decisions that disproportionately hurt them pretrial (Kang et al., 2012; Smith & Levinson, 2012). In addition, prosecutors work under limited oversight and with strong incentives to achieve convictions, creating the possibility for deviation from standards of justice and efficiency (Bibas, 2009). The lack of publicly available information about prosecutorial decision making further aids the use of racial stereotypes to resolve the uncertainty in pretrial processes (Forst, 2010). Finally, prosecutors fill in the uncertainty from incomplete knowledge about the defendant by relying on outcomes from previous steps in pretrial processes. Earlier decisions about charging and bail may induce courtroom actors to believe a defendant to be more guilty and/or deserving of punishment (Albonetti, 1991). Thus, racially biased decisions in earlier steps may contribute to cumulative disadvantage within the model of focal concerns. In conclusion, the focal concerns perspective provides a framework to understand the behavior of prosecutors such that race can be a factor in their pretrial decisions resulting in disparities in outcomes.

Research Gaps

Current research indicates that prosecutorial pretrial decision making is detrimental for African Americans and has a cumulative effect of increasing the likelihood of pleading guilty and receiving a prison sentence. The focal concerns perspective provides a framework to explain these disparities. According to this perspective, three focal concerns guide the decisions of prosecutors when making sentencing decisions: (1) the defendant's blameworthiness and the harm caused to the victim, (2) the protection of the community, and (3) the likelihood of conviction (Steffensmeier et al., 1998). This perspective has provided a structure to understand the ways that legal and extralegal factors, including race, influence pretrial decision making. However, it does not explain the source or mechanism of racial bias. Two theories from social psychology, implicit racial bias and dehumanization bias, offer that potential, and they will be examined more extensively in the next chapter. In short, despite the extensive research on both implicit bias and dehumanization bias, researchers have not tested whether they are factors in pretrial criminal decisions. Implicit associations exist between African Americans and guilt, hostility, and possessing weapons, so Smith and Levinson (2012) argued that it could affect pretrial decision making. High dehumanization bias has been associated with perceiving African American youth as guilty (Goff et al., 2014) and support for longer sentences for sex offenders (Viki et al., 2012). This dissertation will be the first to test whether implicit racial bias and dehumanization bias do in fact play a role. In addition, few studies have tested both simultaneously with implicit racial bias, so it is not clear the impact of each. This study will measure both in order to more accurately assess their influence. Not only will this provide insight specifically into disparities in pretrial decision making, but it will also add information about the general process that produces racial disparities in the legal system.

Moreover, the existing literature has methodological limitations. Most research on pretrial decision making has relied on an analysis of archival case records and conviction data. This methodology has yielded an understanding of the associations between specific actions/outcomes and racial categories, but it is limited in the ability to offer insight into causality. Retrospective data analysis is not “well suited for detecting race differences in sentencing, identifying the presence (or absence) of racial discrimination in sentencing, or advancing knowledge about why race may (or may not) influence legal decision-makers” (Baumer, 2013, p. 234). Archival data analysis of actual cases and their outcomes provides information about what happened but struggles to explain the how and why. As a compliment to existing knowledge, research that employs methodology that is better suited to answering these questions would fill an important gap. This dissertation aims to do so by using a controlled experiment, allowing this study to test the effect of race on several steps of the pretrial process. Experiments have been used with great effectiveness to measure racial bias in the justice system in areas before pretrial, such as policing (Correll, Hudson, Guillermo, & Ma, 2014; Kahn, Goff, Lee, & Motamed, 2016), and after, such as trial and jury decisions (Sommers & Ellsworth, 2003). Thus, the use of experimental methodology to study pretrial decision making may reveal new and distinct results.

Chapter Three: Theory

Overview of Chapter

This chapter will provide detail on two social psychological theories that describe cognitive processes of racial prejudice: implicit racial bias and dehumanization bias. First, the chapter will summarize implicit bias theory, provide an overview of relevant studies, and briefly describe the primary form of measurement, which is important for understanding implicit bias. Second, the chapter will explain models of dehumanization and the research that supports their potential role in racial disparities in pretrial decision making. Third, the theory of genetic essentialism will be reviewed along with research that ties it to racial prejudice, because it can be related to dehumanization bias. The chapter concludes with a summary of these areas of social psychology and the gaps in the research.

Implicit Bias

Implicit bias “refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner” (Staats, 2014, p. 16). In contrast, a belief is explicit if it is consciously endorsed (Greenwald & Krieger, 2006). Implicit biases work involuntarily and without a person’s control or awareness and include both positive and negative assessments of others (Blair, 2002; Greenwald & Krieger, 2006; Kang et al., 2012; Rudman, 2004). They differ from explicit biases in that they are not accessible at the time through self-examination (Kang et al., 2012). Implicit biases are pervasive, automatic, and have real-world implications, but nevertheless they are malleable (Blair, 2002; Nosek, Smyth, et al., 2007). Everyone carries assumptions based on characteristics that include race, ethnicity, sex, and age. Implicit biases tend to favor the more powerful groups in society, such as white Americans, men, and heterosexual people (Nosek, Smyth, et al., 2007). They begin at an early age and develop over

the lifetime through exposure to direct and indirect messages (Blair, 2002; Greenwald & Krieger, 2006; Rudman, 2004). Research indicates that implicit biases impact human behavior in many important areas of social behavior, including the judicial system, policing, education, employment, housing, and medicine (Greenwald, Banaji, & Nosek, 2015; Greenwald & Krieger, 2006; Kang et al., 2012; Pearson, Dovidio, & Gaertner, 2009).

Implicit and explicit biases differ from one another but are related (Nosek, 2005; Nosek & Smyth, 2007). Since implicit attitudes are unconscious, they frequently do not correspond with explicit, stated beliefs or reflect explicitly endorsed stances (Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Greenwald & Krieger, 2006; Kang et al., 2012). For example, one may express an explicit attitude of egalitarianism across races but hold an implicit attitude that favors a particular racial group (Dovidio, Kawakami, Smoak, & Gaertner, 2008). Implicit racial bias is moderated by both internal and external motivations to respond without prejudice, while explicit racial bias is moderated only by the internal motivation to respond without prejudice. As a result, highly externally motivated people (i.e. those concerned with other's perception) tend to have a greater discrepancy between their explicit and implicit bias (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002). At least four variables are known to moderate the relationship between implicit and explicit attitudes: (1) self-presentation (greater self-presentation concerns predicts weaker implicit-explicit correspondence), (2) evaluative strength (more certainty of attitude predicts implicit-explicit correspondence), (3) dimensionality (bipolar, such as political views, has more implicit-explicit correspondence than unipolar, such as gender attitudes), and (4) distinctiveness (attitudes thought to differ from social norms have more implicit-explicit correspondence) (Nosek, 2005). Finally, implicit and explicit biases can reinforce one another (Kang et al., 2012).

Measuring Implicit Bias

Researchers commonly measure implicit bias through response latency methods in which answer time to reaction tasks indicates orientations based on the group category being studied. Greenwald, McGhee, & Schwartz (1998) introduced the Implicit Association Test (IAT) that has become a mainstay of implicit bias research. When participants take the IAT, they quickly sort words or images that represent concepts, and the test measures the response times to determine whether differences exist between schema-consistent pairs and schema-inconsistent pairs. The sorting task is easier for the mind when the concepts are associated, so the reaction time is quicker in those instances. For example, the average American will respond slower to a stereotypically African-American name paired with a stereotypically White face than a stereotypically African-American name paired with an African-American face. The IAT operates at a high speed, so participants react based on non-conscious attitudes. The difference in mean response latency between congruent and incongruent pairs is the IAT effect. Researchers now standardize the IAT effect with an algorithm that is equivalent to a Cohen's *d* effect size (Greenwald, Nosek, & Banaji, 2003).

Since 1998, the IAT has been available on a website (implicit.harvard.edu/implicit/) for self-administered use (Nosek, Smyth, et al., 2007). Although this method has resulted in a non-randomly selected sample, the more than 2.5 million IATs and self-reports on 17 topics (e.g. race, age, religion, sexuality) collected between July, 2000, and May, 2006, provide nearly 100% power for study. The data indicate that implicit biases are pervasive across demographic groups and subjects as well as in the direction favoring the dominant group in the pairing (e.g., White over African American) except regarding Judaism versus other religions. Regarding race, 68% of participants displayed a pro-White preference while only 14% reacted with a pro-African

American one. African American participants were the only racial group to not display an implicit pro-White preference with an average effect of $d = -0.05$ (with $d = 0.00$ signifying no preference). On a scale with range 2.00 to -2.00, White participants reacted with the strongest implicit pro-White preference (average $d = 1.00$). All other groups displayed a pro-White bias: Asians ($d = 0.88$), Latinos ($d = 0.79$), Native Americans ($d = 0.79$), Multi-racials ($d = 0.56$), and “others” ($d = 0.70$) (Nosek, Smyth, et al., 2007). Additional detail on the IAT is provided in the Methods chapter of this dissertation.

Implicit Bias and Pretrial Decision Making

Both explicit and implicit racial bias may contribute to disparities in pretrial proceedings (Chang, 2011). Implicit bias can impact pretrial prosecutorial discretion in such ways as charging decisions, particularly whether to charge and for what crimes, and strategy, including bail recommendations and plea bargain negotiations (Smith & Levinson, 2012). Research has shown that implicit bias factors into perceptions of defendants’ guilt and danger that inform these decisions. Levinson, Cai, and Young (2010) found an implicit association between African American and guilty that also predicted judgments of the value of evidence. After being primed with words stereotypically associated with African Americans, White participants interpreted the main character in an ambiguous story as being hostile (Devine, 1989). In a similar priming experiment, police officers judged adolescent behavior in case vignettes as more immature, culpable, and worthy of harsher punishment. Probation officers also rated the youth in the vignettes as more immature, violent, culpable, likely to reoffend, and deserving of harsher punishment (Graham & Lowery, 2004). Using mock cases, participants more accurately remembered the race of the defendant when the crime matched a racial stereotype of the crime (e.g., African Americans with gang activity), and for some racial stereotype consistent crimes the

accused was more likely to be found guilty or receive a harsher sentence (Skorinko & Spellman, 2013). In another mock case study, participants had an easier time remembering facts related to aggressive acts with African Americans as opposed to Whites in a direction that was detrimental to the African American defendant (Levinson, 2007). Participants evaluated mock trial evidence differently depending on the skin tone of the perpetrator in a photograph resulting in those with darker skin being more likely to be rated as guilty. These judgments were related to implicit bias but not explicit bias (Levinson & Young, 2010). Thus, participants displayed implicit associations between African Americans and guilt, danger, and crime across a range of studies that generalize to the types of interpretations and decisions prosecutors make during pretrial.

More specifically, researchers have demonstrated that implicit bias links African Americans with weapons. Eberhardt and colleagues (2004) found that study participants recognized crime-relevant objects (e.g., guns and knives) quicker after being primed with an African American face, and activating the concept of crime in the minds of police led them to attend more quickly to the faces of African American men. These were part of a series of studies that suggested that associations between social groups and concepts are bidirectional and that they shift perception and attention in ways to influence decision making and behavior (Eberhardt et al., 2004). Similarly, (Nosek, Smyth, et al., 2007) found participants reacted with an implicit association of African Americans with weapons and Whites with harmless objects. In a laboratory simulation with undergraduates, Correll and colleagues (2002, 2006, 2007) found that they were more likely to shoot African Americans than Whites when the presence of a gun was ambiguous. Police did not make the same mistake until under heavy cognitive load (Correll et al., 2007; Correll, Park, Judd, & Wittenbrink, 2002; Correll, Urland, & Ito, 2006). These are among the many studies that indicate that Americans implicitly associate African Americans

with weapons in addition to hostility, guilt, and crime, even when they indicate no such explicit bias. As a result, Smith and Levinson (2012) argued that many prosecutorial pretrial decisions could be influenced by implicit bias. Still, the relationship between implicit bias and pretrial proceedings is largely unknown.

Two studies have investigated the presence of implicit racial bias in court actors. In the first, defense attorneys who represented death row inmates, attorneys who represented defendants charged with capital offenses, and law school students all displayed implicit bias on the IAT. Specifically, Whites responded on average with an anti-African American bias, but the African Americans only had a slight anti-White bias in their median result (Eisenberg & Johnson, 2004). In separate research with trial judges by Rachlinski, Johnson, Wistrich, & Guthrie (2009), those who completed the IAT possessed the same implicit biases as the general population, and those biases influenced their judgment when deciding guilt in mock cases. Judges with a white preference on the IAT were more likely to impose harsher penalties when primed with words associated with African Americans than when primed with neutral words, but judges who had an implicit African American preference did not recommend harsher penalties when primed with African American words. When race was explicitly identified on the mock cases, judges who exhibited a strong racial preference (for either white or African American) on the IAT did not judge the white and African American defendants differently. Thus, judges possessed racial implicit biases, but it is possible that they may be able to manage them to prevent acting with bias (Rachlinski et al., 2009). Combined, these studies suggest that defense attorneys and judges, court actors who are supposed to act without bias, in fact do possess them. Therefore, it would not be surprising for prosecutors to also have implicit racial bias, but it remains unknown whether it would affect their decision making.

Dehumanization Bias

Dehumanization means to deny full humanness to others (Haslam, 2006). The process of conceiving of another group as not fully human but rather as being animal-like has historically been at the root of oppression and genocide. For example, Nazis referred to Jews as rats to justify the holocaust (Chalk & Jonassohn, 1990), and White Americans claimed African Americans were of a separate species and related to apes to justify slavery (Kendi, 2016). Dehumanization is an important precursor to moral exclusion, the process by which stigmatized groups are placed “outside the boundary in which moral values, rules, and considerations of fairness apply” (Opotow, 1990, p. 1). Thus, dehumanization allows the dominant group to oppress other social groups in a manner that would not be acceptable if they were considered fully human.

Haslam (2006) described a dual conception of humanness: human uniqueness, which are the traits that distinguish people from animals, and human nature, which are the attributes that differentiate people from inanimate objects, such as robots and computers. People can be construed as separate from animals due to their cognitive capacity, civility, and refinement and different from inanimate objects because of emotionality, vitality, and warmth. Based on this definition, dehumanization happens by denying others uniquely human traits that distinguish humans from animals (e.g., intelligence) and denying others human nature traits that are typical of and fundamental to humans (e.g., emotionality). According to this theory, the two aspects of dehumanization can occur independently (Haslam & Bain, 2007; Haslam & Loughnan, 2014), and this process exists across cultures (Bain, Park, Kwok, & Haslam, 2009; Demoulin et al., 2004). Like racial bias, dehumanization bias exists in both explicit and implicit forms (Haslam & Loughnan, 2014).

Dehumanization Bias and the Justice System

Recent research suggests that dehumanization bias may impact decision making within the legal system. After reading news stories, participants who perceived defendants as less than human wanted more harsh and retributive sentencing independent of the moral outrage for the crimes (Bastian, Denson, & Haslam, 2013). In another study, the more participants explicitly dehumanized sex offenders, the less they supported rehabilitation, the longer the sentences they recommended, the more likely they were to support their exclusion from society, and the more they supported their violent ill treatment (Viki et al., 2012). Explicit dehumanization bias predicted less compassionate responses to a vignette about injustice experienced by an Arab person (Kteily, Bruneau, Waytz, & Cotterill, 2015). Furthermore, Gwinn, Judd, & Park (2013) found that participants experimentally placed in a higher power position attributed fewer uniquely human traits to low-power participants than vice versa even while not negatively derogating them. Given that prosecutors have both a position of power and operate in a context of having power over the defendant, this study may mean that prosecutors by virtue of the situation could respond by dehumanizing the defendant in any case. While these studies as a whole do not directly address prosecutorial discretion, they suggest that dehumanization bias can influence people to be more punitive in their treatment towards those who have committed a crime. Because dehumanization bias can lead to moral exclusion (Opotow, 1990), this suggests that prosecutors could be susceptible to mistreating defendants. However, a lack of research exists on this process for pretrial decision making.

Dehumanization of African Americans

Phillip Atiba Goff and colleagues (Goff, Eberhardt, Williams, & Jackson, 2008; Goff et al., 2014) identified a specific type of dehumanization bias in which study participants

unconsciously associated African Americans with apes. When primed with ape words, participants were more likely to believe that the beating of an African American suspect by the police was justified than when primed with big cat words or when viewing a White suspect. This findings was not attenuated by implicit racial bias (Goff et al., 2008, 2014). In follow-up studies with university students and then police officers, African American teens were seen as having less “innocence” (meaning being childlike) and thought of as older than their White peers. The more participants implicitly dehumanized African Americans, the greater the age overestimation and perceived culpability of African American youth. Furthermore, studying actual police records, anti-African American dehumanization scores predicted racial disparities in police use of force (Goff et al., 2014). These results corroborated earlier research by Graham and Lowery (2004) that found the police and probation officers who had been primed with words associated with African Americans subsequently rated youth in case vignettes as more immature, culpable, and deserving of harsher punishment. Together, this research suggests that people dehumanize African Americans and that belief may impact the decision making by actors in the justice system. When this work is analyzed along with the research on the potential for dehumanization bias to shape the way prosecutors look at defendants, this suggests that African American defendants may be particularly vulnerable to unfair treatment by prosecutors during pretrial.

Infrahumanization

In a different model of dehumanization termed infrahumanization, Leyens et al. (2000, 2003, 2007) describe a subtle process defined by the ascribing of certain emotions symbolic of humanness to “in-groups” but not to “out-groups” They theorize that people use three main attributes to distinguish humans from animals: intelligence, language, and refined emotions. Humans share primary emotions with animals, including surprise and fear, but secondary

emotions, such as serenity and bitterness, are unique to people. Thus, attributing fewer secondary emotions to out-group members than to in-group members is a form of dehumanization. Secondary emotions can be positive or negative, so assessment of humanness is independent of an overt evaluation of the out-group. Research has found infrahumanization to be robust across many social categories of in-group and out-group, including race, as long as a meaningful distinction exists between the two. Intergroup conflict is not necessary, so infrahumanization is independent of in-group favoritism and out-group derogation (Leyens et al., 2000, 2003, 2007). This concept is commonly measured through judgment tasks in which individuals attribute emotions to groups; this can be accomplished either explicitly or implicitly (Demoulin et al., 2004; Paladino et al., 2002).

Because infrahumanization involves the denial of full humanness to others, as with other models of dehumanization it can lead to moral exclusion allowing for members of a social group to be denied social protections (Opatow, 1990). Researchers have not explored the influence of infrahumanization on legal proceedings, but related studies suggest that it may be generalizable to the treatment of African Americans during criminal pretrial. Infrahumanization of an out-group has been associated with diminished empathy (Čehajić, Brown, & González, 2009), so if a prosecutor were to infrahumanize an African American defendant then he or she may make more punitive decisions towards that defendant. In one study, an increase in the rating by Israelis and Palestinians of the other as being capable of compassion was associated with a decrease in retributive justice (Leidner, Castano, & Ginges, 2013). For a prosecutor, this would translate to perceiving the defendant as having care and concern for others and thereby meriting a less punitive punishment. Similarly, in another study, Protestants and Catholics in Northern Ireland were less likely to forgive the other group for prior violence when they infrahumanized them

(Tam et al., 2007). In a study of forgiveness, Canadians forgave Afghans for a friendly-fire incident to the extent that they did not inhumanize them, and in other scenarios in-group members offered less forgiveness when transgressor out-groups expressed more human emotions, which were reserved for the in-group, rather than primary emotions in their apology (Wohl et al., 2012). Thus, dehumanizing others through the denial of uniquely human emotions reduced forgiveness, which could cause a prosecutor to be less lenient with a defendant. In 2014, 95% of the 2,437 elected state and local prosecutors across the United States were white (Women Donors Network, 2015), placing defendants who are African American in the out-group in the vast majority of situations. Thus, this inhumanization research suggests prosecutors are less likely to feel empathy for them and to forgive them, including if they expressed remorse in a way that is inconsistent with a prosecutor's inhumanization for them.

Genetic Essentialism

Psychological essentialism is necessary to dehumanize another as more animal-like (Haslam, 2006) and to engage in inhumanization (Leyens et al., 2001). According to psychological essentialism, people develop mental representations of categories that reflect the belief that group members have essences or underlying natures that define them. As a result of these conceptions, people also believe category members share these deeper properties (Medin, 1989; Medin & Ortony, 1989). Five elements define essentialist social categorization: (1) people see all category members as possessing an essential feature in common, (2) they perceive membership as immutable, (3) this allows inferences about the category members, (4) people interpret the features of category members within the context of one unifying theme, and (5) categorization is exclusive, meaning members of one category cannot easily be conceived of as members of another (Yzerbyt, Rocher, & Schadrin, 1997).

In applying categorization to our understanding of human beings, genetics have become the dominant form of essentialism (Haslam, 2011). In the United States, people commonly overly attribute genetic causality for human traits, and this conceptual framework shapes social perceptions and helps people to understand and predict behavior. Americans often think of genes as an essence that provides particular types of information about members of social groups (Jayaratne et al., 2006). Dar-Nimrod and Heine (2011) define genetic essentialism as the tendency to infer an individual's characteristics and behaviors as based on one's genetic makeup. This thought process results in interpreting behavior as more immutable, homogenous, natural, and caused by genes than is accurate. Furthermore, the belief in the biological/genetic basis for race leads people to think of themselves as distinct from those of other races. However, no biological/genetic basis for race exists as race is a social construct (Roberts, 2011).

In Gordon Allport's (1954) foundational book *The Nature of Prejudice*, he wrote that the belief in group essences is a defining characteristic of prejudice. Consistent with this, Bastian and Haslam (2006) found an association between the belief in a genetic essentialist conception (meaning believing in the biological basis, discreteness, and informativeness of human behavioral attributes) and racial prejudice. Specifically, those with essentialist beliefs are more likely to endorse stereotypes about specific social groups as being true, to explain that stereotypical attributes derive from innate and inherent factors, and to divide individuals into discrete categories. In addition, the belief that attributes were fixed was associated with the belief that they were biologically based and deeply informative about individuals (i.e., differences allow many inferences to be drawn about a person from a few characteristics) (Bastian & Haslam, 2006).

Several other empirical studies have found evidence that essentialist beliefs about race are associated with stereotyping and prejudice. Keller (2005) found that the biological component of psychological essentialism was associated with racial stereotyping. The more participants had an essentialist belief about genetic determinism then the more negatively they evaluated the lower social status racial/ethnic out-group. The measure of genetic determinism included items about both genetic causality broadly and the role of genes specifically in identifying race. Williams and Eberhardt (2008) similarly reported that a biological conception of race specifically lowered emotional concern about racial disparities and reduced interest in interacting with and developing friendships with racial out-group members. In another study, White Americans' genetic lay theories (the belief in genes as an essence that is informative about members of racial groups) were associated with greater prejudice toward African Americans (Jayaratne et al., 2006). Overall, the belief that genes describe an essence of a group was associated with greater racial stereotyping and prejudice towards African Americans. Across studies, this was true both when the belief referred to a general belief about the role of genes and when the belief referred to genes as a tool for determining race. As a result, genetic essentialism could be a predictor of prosecutors making pretrial decisions in a racially disparate manner. Because psychological essentialism is necessary for dehumanization, testing whether genetic essentialism is a factor in pretrial decision making may shed light on this manifestation of racial prejudice.

Summary

Two theories from social psychology address possible sources of racial disparities: implicit racial bias and dehumanization bias, which includes inhumanization. Implicit racial bias refers to the unconscious associations, attitudes, and beliefs about race that can influence our

behavior. Dehumanization bias is conceiving of another person or group as less than human, and inhumanization is a specific form in which people associate in-group members with specific secondary emotions. Genetic essentialism is necessary to dehumanize and is the tendency to infer an individual's characteristics and behaviors as based on genes. Since people tend to view race as having a genetic basis, those who are more inclined to believe in a genetic essence are more likely to act in a racially prejudiced manner.

A literature base exists for each of these theories, and it is particularly extensive for implicit racial bias. However, no known studies have assessed the influence of each form of bias simultaneously. Moreover, few studies have measured and compared the influence of just the two of implicit racial bias and any form of dehumanization bias; the most notable example is the work of Goff and colleagues (2008, 2014). As a result, this study explores new ground by including each of these theories in a study of racial bias. This is important because both implicit racial bias and dehumanization bias offer a distinctive explanation of a psychological process that may contribute to racial bias. However, prior research has not tested whether they have a unique role in outcomes. Understanding whether the theories identify exclusive processes is important for understanding the way that racial bias works in order to ultimately reduce it.

Chapter Four: Methods

Overview of Chapter

This chapter will begin by identifying the research questions and the resulting hypotheses. The sampling and recruitment procedures as well as the steps to protect the human participants will be described. Next, the data collection measures will be detailed. Finally, the analysis plan to determine whether the hypotheses have been supported will be described.

Research Questions

This dissertation poses the following questions:

1. Are implicit racial bias, explicit racial bias, implicit dehumanization bias, and/or explicit dehumanization bias associated with pretrial decision making (for each of initial charge, bail, target plea sentence, minimum acceptable plea sentence, and charge reduction)?
2. What are the relative influences of implicit racial bias, explicit racial bias, implicit dehumanization bias, explicit dehumanization bias?

Hypotheses

The following hypothesized results answer the two research questions.

Research question #1: Implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be associated with pretrial decision making in the following ways:

H1a. With an African American defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be positively associated with more punitive initial charges, greater bail amounts, longer target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.

H1b. With a White defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be negatively associated with more punitive initial charges, greater bail amounts, longer target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.

Research question #2: Implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will have the following relative relationships within the full model:

H2a. Implicit racial bias will be a significant factor in outcomes when controlling for explicit racial bias.

H2b. Implicit dehumanization bias will be a significant factor in outcomes when controlling for explicit dehumanization bias.

H2c. Implicit dehumanization bias will be a more powerful factor in outcomes than implicit racial bias.

H2d. Explicit dehumanization bias will be a more powerful factor in outcomes than explicit racial bias.

H2e. Explicit racial bias will be the weakest predictor for outcomes.

Recruitment

Recruitment of subjects took place at the UCLA School of Law. In order to support successful recruitment, research participants were compensated with \$25 for the 25-30 minutes required to complete the online study. With the assistance of the UCLA School of Law, the following recruitment strategy was employed:

1. Near the end of the spring law semester in 2017, I made an announcement in one of the required first year law classes stating, “The purpose of the study is to better understand prosecutorial decisions, particularly during pretrial.”
2. During the summer, the Assistant Dean for Student Affairs sent three separate recruitment emails to the students who had just completed their first and second years. The emails were sent at 1-2 week intervals and stated that the study focused “on factors that influence prosecutorial decisions.” The email stated the \$25 incentive.
3. About a month after the final first/second year email but still in the summer, the Assistant Dean sent the same recruitment email to the recent graduates explaining the purpose of the study and the incentive. This email went out at a separate time and was sent only once as the Assistant Dean did not want to disrupt students who were studying for the California Bar exam.

Conducting the study over the summer reduced the risk of contamination as participants were not sharing classes with one another.

Sample

A total of 148 UCLA Law School students completed the study. All UCLA Law School students were eligible (approximately 900). Law students were recruited as study subjects because they are the university student population that is most similar to prosecutors. The sample study was similar in race and gender (see Table 1) to those of the official data released by UCLA (“UCLA School of Law Facts,” 2017). While the study sample was 64% White and 53% female, the incoming UCLA first year class in 2017 was 60% White and 51% female. All study participants had completed their first, second, or third year in 2017, but the under-representation of the third-year students reflected the truncated recruitment process. More relevant, 99% of

participants had completed at least one criminal procedure class, and 76% had completed exactly one. Thus, they had a similarity in criminal law training.

<i>Table 1. Sample Demographics.</i> (<i>n=148</i>)		
Race/Ethnicity	n	Rate
African American/Black	5	3%
Asian American/Pacific Islander	25	17%
Latinx	10	7%
Other	12	8%
White	95	64%
No Answer	1	1%
Gender		
Female	79	53%
Male	68	46%
Other	1	1%
Law School Year Completed		
1	77	52%
2	47	32%
3	24	16%
Criminal Law Classes		
0	2	1%
1	113	76%
2 or more	33	22%

A total of 236 people completed the consent form in the first section of the online study.

After the consent form, participants received the following message:

Note: this survey only works on a computer and not on a tablet or phone. Only proceed if you are using a computer. If you start and stop, you will not be able to pick up where you left off. You also will not be able start again from the beginning. Begin when you have enough time to finish.

After reading that message, 46 did not proceed to the first part of the study, so 190 began the study. Of the 190 who began the study, 155 (82%) completed the final measure, meaning 35 (18%) did not complete the experimental procedure. Of the 35 who did not complete the study, the largest number dropped (15) out near the end when they were supposed to complete the two

IATs. The two IATs were on a separate platform, and those people appeared to have not begun either IAT.

Of the 155 people who completed the study, 7 were disqualified for not scoring at least 70% correct on either one of the IATs. Nosek, Smyth, et al. (2007) enlist this procedure, because failure to reach this standard indicates a lack of attention to the measure, making the result inaccurate. In this study, 5% of participants were disqualified, which was on the low side of the 5-15% expected range (Nosek, Smyth, et al., 2007). This left the sample at 148. Two additional participants did not complete the infrahumanization measure, so the total number of participants to complete all measures was 146.

Before recruitment, an analysis was conducted to determine the necessary sample size with $\alpha = 0.05$ and $\beta = 0.20$ for a power = 0.80. A meta-analysis of the IAT across 32 studies measuring the relationship between the IAT and racial outcome variables found effect size = 0.236 (95% confidence interval $\pm .062$) (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Because this dissertation study is the first to measure the relationship between the IAT and pretrial decision making, it is important to have a large enough sample size to detect the range of possible effects with a level of power of 0.80. Therefore, for the sample size calculation, the minimum effect was set to be the bottom of the 95% confidence interval (effect size = 0.174). Notably, this would still be considered a medium effect for social science research (Cohen, 1992). To complete the sample size analysis, the calculation indicated that $f^2 = 0.21$. For linear multiple regression, the sample size analysis indicated 84 was the total necessary sample for each experimental condition for a power of 0.80. As seen by the sample sizes for the conditions equaling 77 and 69, this study was slightly underpowered given the estimated effect size.

Protection of Human Subjects

The UCLA Office for the Protection of Research Subjects approved all aspects of the study.

Data Collection

Criminal case vignette. Participants read a criminal case vignette about a robbery and made pretrial decisions about it in the assumed role of the prosecutor. The case vignette had been used in a prior study in which participants made more favorable plea bargain determinations for the White defendant than the African American one (Khogali & Penrod, unpublished manuscript). The case vignette appeared in the format of a police report that indicated the race of the defendant in two locations: (1) a box on the police report for race located between date of birth and sex, and (2) an eye witness statement that included 6 photographs of suspects. Through this format, the race of the defendant was presented in a way that was organic to the material in an effort to not draw attention to the purpose of the study. The race of the defendant was experimentally manipulated such that participants randomly received a case vignette with either an African American or White defendant. All other aspects of the case vignette remained constant. The case vignette was designed to be legally ambiguous, because bias emerges more strongly in such situations (Johnson, 1985; Levinson & Young, 2010). Referencing race in the descriptions of the accused perpetrator has been sufficient to prompt a race effect in prior research (Sommers & Ellsworth, 2001). (The case vignette has been included in Appendix A.)

Dependent variables. After reading the case vignette, participants made seven determinations that served as the dependent variables:

1. Robbery charge (1=no charge, 2=felony grand theft, 3=felony robbery, 4=felony robbery and felony burglary)
2. Gun enhancement (1=no, 2=yes)
3. Battery charge (1=no charge, 2=misdemeanor battery, 3=misdemeanor battery causing serious bodily injury, 4=felony battery causing serious bodily injury)
4. A bail amount with the suggested amount being \$100,000 (continuous response)
5. A target sentence for the plea bargain with the suggested sentence being 60 months (continuous response)
6. A minimum sentence for the plea bargain (continuous response)
7. A charge reduction to a lower felony charge (1=yes, 2=no)

In addition, the first three variables were summed to determine the total number of charges, creating an eighth dependent variable, scaled from 0 to 3.

For the charging decisions, the legal criteria for each charge option were provided so that all participants had the same information from which to make their determination. The instructions also stated that the charges were listed from least to most punitive. For the bail and sentencing measures, the suggested amounts were provided so that all participants could have the same information for their decision making. This also mimics the real-life manner in which prosecutors work. They make bail amount recommendations from a schedule that includes the charges, and plea offers are determined from a schedule based on conviction charges. In addition, prior research has found that sentencing disparities are most evident in departure from guidelines (Mustard, 2001). Moreover, although the law students had received similar training, they likely were not identically prepared. These guidelines reduced variance from extraneous factors, including their preconceived notions about punishment.

These eight dependent measures corresponded with four of the six areas in which prosecutors exercise pretrial discretion. Dependent variables #1, #2, #3, and #8 serve as the prosecutorial initial screening of whether to accept a case for prosecution and the charges to file. Dependent variable #4 provides data on the pretrial release/bail procedure with a monetary value of the bail. Dependent variables #5, #6, and #7 provide data about guilty plea (the plea deal offered) and sentencing (whether or not to incarcerate and the length of sentence).

Case perception items. After completing the dependent measures, participants responded to 14 items about their perceptions of the case, the defendant, and the victim. (Case perception items are in Appendix B.) These items aligned with the focal concerns perspective to measure its association with decision making. As previously described, three focal concerns shape the decisions of prosecutors when making case decisions: (1) the defendant's blameworthiness and the harm caused to the victim, (2) the protection of the community, and (3) the likelihood of conviction (Spohn, Beichner, & Davis-Frenzel, 2001; Steffensmeier, Ulmer, & Kramer, 1998). Participants rated each case vignette in terms of the defendant's guilt (2 items, e.g., "The defendant committed the crime") and harm to the victim (2 items, e.g., "The harm to the alleged victim is significant"), the protection of the community (4 items, e.g., "If the defendant is released pretrial, it is unlikely the defendant will commit a crime"—reverse coded), and likelihood of conviction (6 items, e.g., "If this case were to go to trial, the defendant would be found guilty"). Items were derived from a previous study of defense attorneys and plea bargaining (Edkins, 2011). All items were on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). The order of the 14 items was randomized.

Race Implicit Association Test (IAT). To measure implicit racial bias, participants completed the Implicit Association Test (Greenwald et al., 1998, 2003, 2009). The Race IAT

measures whether participants are faster at categorization when pictures of African American (versus White) faces are paired with “good” items (marvelous, superb, pleasure, beautiful, joyful, glorious, lovely, wonderful) as opposed to “bad” items (tragic, horrible, agony, painful, terrible, awful, humiliate, nasty). The response time disparities are interpreted as implicit attitudes based on race with a score of $d = 0.00$ indicating a racially neutral implicit attitude. The scale ranges from 2.00 to -2.00, and a positive score indicates a pro-White/anti-African American bias. The pictures and words for the IAT have previously been used in research and were provided from the “Racism IAT” at Millisecond (<http://www.millisecond.com/download/library/IAT/>).

The IAT has been extensively researched, and it has displayed internal and construct validity (Nosek, Greenwald, & Banaji, 2005, 2007). Greenwald et al. (2009) conducted a meta-analysis of the IAT using 122 research reports containing 184 independent samples with 14,900 participants. The researchers compared its performance to the explicit (i.e. self-report) measures reported in 156 of the samples, totaling 13,068 participants. The IAT had an average $r = .274$ for the prediction of behavioral, judgment, and physiological measures. The explicit measures were more effective on average with an $r = .361$, but the effect size had greater variability. The more socially sensitive the topic, the better the IAT performed relative to self-reports. The IAT was better at predicting the criterion measures for the 32 studies that explored black-white interracial behavior. Both the IAT and explicit measures had incremental validity, and when they were more inter-correlated they provided more predictive validity.

Dehumanization IAT. Similar to the IAT, the dehumanization IAT is designed to measure implicit dehumanization bias, a specific form of implicit bias in which people associate African Americans with apes (Goff et al., 2008). The dehumanization IAT measures whether participants are faster at categorization when stereotypically African American (or White) names

are paired with ape words (e.g., ape, monkey, baboon, chimp, chimpanzee, orangutan, gorilla, and primate) as opposed to big cat words (e.g., lion, tiger, panther, puma, cheetah, cougar, leopard, and feline) (Goff et al., 2008). The response time disparities indicate a dehumanization bias using the same scale as the Race IAT. The stereotypical names for the dehumanization IAT were taken from Levitt and Dubner (2005).

Modern Racism Scale (MRS). This questionnaire is a widely used measure of explicit attitudes towards African Americans (McConahay, 1986). Participants respond to 7 statements on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), but for this study the upper bound of the scale was raised to 7 (strongly agree) to be consistent with the other measures. Statements include: “Over the past few years, the government and news media have shown more respect to blacks than they deserve” and “Discrimination against blacks is no longer a problem in the United States.” (MRS is in Appendix B.) The order of the items was randomized. The MRS correlates with other measures of attitudes towards African Americans but is also distinctive (McConahay, 1986). The MRS is a current, reliable, and commonly used measure of explicit attitudes about African Americans.

Infrahumanization Measure. As a measure of explicit dehumanization bias, participants were asked to rate 12 primary and secondary emotions with the instruction: “Please indicate how common you think each of the following emotions are for [*African Americans or Whites*] as a group.” They were provided with a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Emotions were selected from a list previously rated by participants across two dimensions: (1) valence and (2) how unique they were to humans versus animals (Demoulin et al., 2004). The 12 emotions were balanced in terms of positive and negative valence even though infrahumanization is independent of emotional valence (Haslam & Loughnan, 2014;

Leyens et al., 2000). The 6 primary emotions contained 3 positive (surprise, attraction, pleasure) and 3 negative (anger, disgust, fear). The 6 secondary emotions also had 3 positive (compassion, serenity, happiness) and 3 negative (shame, bitterness, contempt). The order of emotions was randomized as was the order of racial category. As with prior research on infrahumanization (Cuddy, Rock, & Norton, 2007), the average of the difference between ratings of the commonality of each emotion for African Americans and Whites equaled the Mean Infrahumanization Score. Positive scores indicated an explicit dehumanization bias that favored Whites.

Racial Conception Scale (RCS). This questionnaire measures the extent to which individuals hold a conception of race as biologically based, a form of genetic essentialism (Williams & Eberhardt, 2008). Respondents complete a 22-item questionnaire on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) that contains statements such as “I believe physical features determine race.” (RCS is in Appendix B.) Order of the items was randomized. Responses measure the extent to which racial categories are considered biological, natural, easily discernible, and stable as opposed to socially determined, context specific, difficult to discern, and unstable. The mean of the responses (reverse coded when appropriate) equals the RCS score on a scale of 1 to 7 with a higher number indicating a stronger belief that race is biologically based. Williams and Eberhardt (2008) tested the RCS with three distinct samples and found that the survey items were internally consistent, consistent over time, and related to but distinct from other established measures of prejudice and related psychological processes. In the three samples, the 22 RCS items had strong coherence (Cronbach’s $\alpha = .79, .93, .84$). The researchers retested the first sample one month later in a mass testing session, and internal reliability was

high again (Cronbach's $\alpha = .86$). In addition, participants responded with a high degree of consistency between the two surveys ($r = .82, p < .01$) (Williams & Eberhardt, 2008).

Procedure

Participants completed the study online in 20-30 minutes. After completing the online consent form, instructions stated that the participants would read about a criminal case: "Take in the information from the perspective of the prosecutor, analyze it as such, and answer the subsequent questions about the case as if you were the prosecutor." After reading the case, participants received the instruction: "Please answer the following questions acting in the role of the prosecutor. Even though the police arrested the defendant for robbery, you have discretion over charging. There are no right or wrong answers; use your best legal mind."

After making the pretrial decisions, participants were asked to explain their perception of the purpose of the experiment. They then completed the case perception items. To assess levels of bias, participants completed the RCS, the infrahumanization measure, and the MRS; order was randomized. Next, participants provided demographic information. They then completed the race IAT and the dehumanization IAT; order was randomized. Finally, participants were debriefed online and thanked. On a separate web page, they provided information for mode of payment and then received the incentive via Venmo, PayPal, or check.

Analysis

In order to test the hypotheses that address the research questions, several types of statistical analyses were employed.

Research Question #1. The first research question asks whether implicit racial bias, explicit racial bias, implicit dehumanization bias, and/or explicit dehumanization bias are associated with pretrial decision making. This study had two hypotheses:

H1a. With an African American defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be positively associated with more punitive initial charges, greater bail amounts, longer target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.

H1b. With a White defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be negatively associated with more punitive initial charges, greater bail amounts, longer target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.

To test the hypotheses about initial charges, multiple logistic regression was used to regress robbery charge on racial implicit bias, dehumanization bias, the MRS, the infracumanization scale, the RCS, and the case perception items. Multiple logistic regression was used as opposed to ordinal regression because the data did not meet the proportional odds assumption as tested by the test of parallel lines (O'Connell, 2006). The test of the null hypothesis ($\chi^2(20) = 58.70, p < .001$) indicated that it should be rejected, meaning the slopes of the regression were not equivalent across categories. Logistic regression was used to regress gun enhancement on racial implicit bias, dehumanization bias, the MRS, the infracumanization scale, the RCS, and the case perception items. Ordinal regression was used to regress each of battery charge and total number of charges on racial implicit bias, dehumanization bias, the MRS, the infracumanization scale, the RCS, and the case perception items. For the hypotheses about bail amounts, target plea sentence, and minimum acceptable plea sentence, linear regression was used to regress each of bail, target plea sentence, and minimum acceptable plea sentence on racial implicit bias,

dehumanization bias, the MRS, the infrahumanization scale, the RCS, and the case perception items. Finally, logistic regression was used to regress charge reduction on racial implicit bias, dehumanization bias, the MRS, the infrahumanization scale, the RCS, and the case perception items.

Research Question #2. The second research question asked the relative relationships among implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias. Five hypotheses were associated with this question:

H2a. Implicit racial bias will be a significant factor in outcomes when controlling for explicit racial bias.

H2b. Implicit dehumanization bias will be a significant factor in outcomes when controlling for explicit dehumanization bias.

H2c. Implicit dehumanization bias will be a more powerful factor in outcomes than implicit racial bias.

H2d. Explicit dehumanization bias will be a more powerful factor in outcomes than explicit racial bias.

H2e. Explicit racial bias will be the weakest predictor for outcomes.

These hypotheses were tested through several means. The regression equations were used to assess whether implicit racial bias was a statistically significant factor when controlling for explicit racial bias. Similarly, the regression equations determined whether implicit dehumanization bias was a statistically significant factor when controlling for explicit dehumanization bias. Implicit dehumanization bias was compared to implicit racial bias by examining the statistical significance of each in the regression equations. Explicit dehumanization bias was compared to explicit racial bias by also comparing their statistical

significance. Finally, the statistical significance of explicit racial bias was compared to the other forms of bias in the regression equations to assess whether it was the weakest predictor.

Conclusion

This chapter described the methodology employed to answer the research questions and test each hypothesis. Participants participated in a randomized experiment in which they read a criminal case vignette and made determinations about it. They read an identical case vignette that only varied on the race of the defendant that was randomly assigned to be either African American or White. Participants then completed a series of psychological measures to test for racial bias as well as to ascertain perceptions of the case that may have shaped their decisions. The next chapter explores whether the measured forms of racial bias had associations with their pretrial decisions.

Chapter 5: Results

Introduction

This section first will provide descriptive statistics for the independent variables. Next, the data from the outcome variables will be summarized. Before providing the key analyses, the two research questions and their corresponding hypotheses will be restated separately. The data that answer the questions will then be provided. Results will be parceled into sub-sections to address each hypothesis in detail.

Descriptive Statistics

Before beginning full analyses, descriptive statistics were created for the independent variables (see Table 2). In this sample, the mean score on the Race IAT was $d = 0.22$, indicating a “slight” pro-White/anti-Black preference (Nosek, Smyth, et al., 2007). In comparison, the national average based on millions of completed IATs is much higher ($d = 0.86$). In addition, the national average for White Americans ($d = 1.00$) and Asian Americans ($d = 0.88$), who make up the majority of this study’s sample, is also much higher (Nosek, Smyth, et al., 2007). This indicates that the current population sample was low in pro-White/anti-Black implicit racial bias. Similar with the Race IAT, participants in this study had a mean dehumanization IAT of $d = 0.20$, but no national average exists for comparison, though. The order of the two IATs was randomized, and the mean race IAT score was not statistically different based on order ($\mu_1 = 0.20$, $\mu_2 = 0.24$, $t(146) = -0.54$, $p > 0.58$). The mean dehumanization IAT also did not vary based on order ($\mu_1 = 0.21$, $\mu_2 = 0.19$, $t(146) = 0.26$, $p > 0.80$). Also, the Cronbach’s α for each of the measures that were appropriate for that analyses indicated acceptable internal consistency. The focal concerns were scales created for this study and had 2 to 6 items each.

Unlike the race IAT, national average scores have not been calculated for the other measures of racial bias. Nevertheless, the mean scores from this example can be placed in context. For the Modern Racism Scale (MRS), a recent study reported $M = 2.42$ ($n = 445$) (Levinson, Smith, & Young, 2014), indicating the sample in the current study scored lower. This is especially noteworthy as the current study raised the upper bound to 7 from 5, indicating the mean of 1.70 was even lower relative to the mid-point of the scale. For the inhumanization measure, even though prior research has used a variety of scales (Cuddy et al., 2007; Demoulin et al., 2004), they consistently have found a positive score that indicates a greater association between White people and secondary emotions. The neutral ($M = -0.03$) score in this study is unusual. For the Race Conceptions Scale, Williams and Eberhardt (2008) reported means from three separate samples: $M = 4.12$ ($n = 302$), $M = 3.55$ ($n = 54$), $M = 4.00$ ($n = 925$). The researchers did not report standard deviations to compare the means to this study, but the current sample has a slightly lower mean.

<i>Table 2. Descriptive Statistics for the Independent Variables</i>						
Variable	n	Min	Max	Mean	SD	Cronbach's α
Implicit Racial Bias (Race IAT)	148	-1.21	1.07	0.22	0.44	
Implicit Dehumanization Bias (Dehumanization IAT)	148	-0.80	1.07	0.20	0.39	
Explicit Racial Bias (MRS)	148	1.00	5.29	1.70	0.85	0.87
Explicit Dehumanization Bias (Inhumanization)	146	-1.00	1.58	-0.03	0.31	
Race Conceptions Scale	148	1.64	5.77	3.66	0.83	0.89
Focal: Blame Defendant	148	1.00	6.50	4.25	1.11	0.82
Focal: Harm to the Victim	148	1.00	7.00	5.06	1.32	0.78
Focal: Protection of the Community	148	1.50	6.50	3.96	1.04	0.60
Focal: Likelihood of Conviction	148	2.17	6.33	4.06	0.82	0.71

In examining the correlations among the independent variables, it is important to note that the highest was 0.39 ($p < 0.01$) between the MRS (explicit racial bias) and the RCS, and no

other correlation was above 0.25 (see Table 3). Importantly, the race IAT and the dehumanization IAT were correlated ($r = 0.25$, $p < 0.01$) but at a level to indicate that they measured distinct phenomena. In addition, the race IAT and MRS ($r = 0.22$, $p < 0.05$) and the dehumanization IAT and infrahumanization measure ($r = 0.06$, $p > 0.43$) indicated that the implicit and explicit measures of their respective constructs tapped into unique cognitions.

<i>Table 3. Independent Variable Correlations</i>					
Variable	Implicit Racial Bias	Implicit Dehum. Bias	Explicit Racial Bias	Explicit Dehum. Bias	RCS
Implicit Racial Bias (Race IAT)	1	0.25**	0.22*	0.05	0.16*
Implicit Dehumanization Bias (Dehumanization IAT)	0.25**	1	0.14	0.06	0.18*
Explicit Racial Bias (MRS)	0.22*	0.14	1	0.06	0.39**
Explicit Dehumanization Bias (Infrahumanization)	0.05	0.06	0.06	1	-0.02
Race Conceptions Scale	0.16*	0.18*	0.39**	-0.02	1
Note: * $p < 0.05$; ** $p < 0.01$					

Dependent Variables

The dependent variables measured participant pretrial decisions. A review of these outcome variables indicated that the participants often responded in a racially egalitarian manner. Each outcome table only includes participants who completed all measures needed for the corresponding regression analysis, making it the same sample as used in the results.

Robbery Charge. Participants first decided on a charge for the robbery element of the crime. Most participants charged the defendant with one of the two more punitive choices (Table 4). Examining by charge category, the difference in the proportion for the felony robbery charge between the African American and the White defendant was statistically significant. This

indicates that participants were more likely to charge the African American defendant for the charge of felony robbery than the White defendant. However, participants charged a lower percentage of African American defendants with all of the other charge options (although not in a statistically significant proportion).

<i>Table 4. Descriptive Statistics for Robbery Charge.</i>					
	Drop Charges	Felony Grand Theft	Felony Robbery	Felony Robbery & Felony Burglary	Total
African American Defendant	10.4% (8) ^a	9.1% (7) ^a	42.9% (33) ^a	37.7% (29) ^a	77
White Defendant	13.0% (9) ^a	17.4% (12) ^a	26.1% (18) ^b	43.5% (30) ^a	69
Total	11.6% (17)	13.0% (19)	34.9% (51)	40.4% (59)	146
$\chi^2 (3) = 5.38, p > .14$					
Note: Values in the same column not sharing the same subscript are significantly different at $p < .05$ in the two-sided test of equality for column proportions. Cells with no subscript are not included in the test. This is not a test across the rows .					

Gun Enhancement. Participant determination on whether to add the gun enhancement was equivalent across race of the defendant (Table 5). About three-quarters in both conditions chose not to add a gun enhancement.

<i>Table 5. Descriptive Statistics for Gun Enhancement</i>			
	No	Yes	Total
African American Defendant	79.7% (55)	20.3% (14)	69
White Defendant	75.0% (45)	25.0% (15)	60
Total	77.5% (100)	22.5% (29)	129
$\chi^2 (1) = 0.41, p > .52$			

Battery Charge. The decision about the battery charge was also equivalent across race of the defendant (Table 6). The majority of participants chose misdemeanor battery.

<i>Table 6. Descriptive Statistics for Battery Charge</i>					
	No Additional Charges	Misdemeanor Battery	Misdemeanor Battery Causing Serious Bodily Injury	Felony Battery Causing Serious Bodily Injury	Total

African American Defendant	8.7% (6)	73.9% (51)	8.7% (6)	8.7% (6)	69
White Defendant	10.0% (6)	66.7% (40)	11.7% (7)	11.7% (7)	60
Total	9.3% (12)	70.1% (91)	10.1% (13)	10.1% (13)	129
$\chi^2 (3) = 0.86, p > .83$					

Total Charges. When summing the total number of charges, participant answers were equivalent across race (Table 7). The largest percentage of people selected 2 charges.

<i>Table 7. Descriptive Statistics for Total Number of Initial Charges</i>					
Number of Charges	0	1	2	3	Total
African American Defendant	10.3% (8)	2.6% (2)	73.1% (57)	14.1% (11)	78
White Defendant	12.9% (9)	5.7% (4)	62.9% (44)	18.6% (13)	70
Total	11.5% (17)	4.1% (6)	68.2% (101)	16.2% (24)	148
$\chi^2 (3) = 2.14, p > .54$					

Bail. On average, participants chose a bail amount lower than the recommendation of \$100,000 (see Table 8). Even though their bail amount was higher for the White defendant, the difference was not statistically significant.

<i>Table 8. Descriptive Statistics for Bail</i>					
	n	Mean	SD	Minimum	Maximum
African American Defendant	69	84,286	75,264	0	500,000
White Defendant	59	91,102	89,245	0	500,000
Note: Mean, SD, minimum, and maximum in dollars.					
$t (126) = -0.47, p > .63$					

Target Plea Sentence. Participants stated target plea sentence was on average well below the recommended 60 months (see Table 9). The difference between the African American and White defendant was not statistically significant even though it was 3.3 months higher for the White one.

<i>Table 9. Descriptive Statistics for Target Plea Sentence</i>					
	n	Mean	SD	Minimum	Maximum
African American Defendant	69	38.9	18.9	1	120
White Defendant	59	42.2	22.9	3	120
Note: Mean, SD, minimum, and maximum in months. $t(126) = -0.88, p > .38$					

Minimum Acceptable Plea Sentence. The minimum acceptable plea sentence was also well below the recommended plea sentence of 60 months (see Table 10). The gap narrowed between the races in comparison to the target plea sentence and was not statistically significant.

<i>Table 10. Descriptive Statistics for Minimum Acceptable Plea Sentence</i>					
	n	Mean	SD	Minimum	Maximum
African American Defendant	69	24.7	13.1	4	80
White Defendant	59	25.6	15.9	1	96
Note: Mean, SD, minimum, and maximum in months. $t(126) = -0.35, p > .72$					

Charge Reduction. For the final decision of charge reduction, participants overwhelmingly stated that they would offer the defendant a lesser felony charge, regardless of race (Table 11).

<i>Table 11. Descriptive Statistics for Charge Reduction</i>			
	No	Yes	Total
African American Defendant	10.1% (7)	89.9% (62)	69
White Defendant	15.0% (9)	85.0% (51)	60
Total	12.4% (16)	87.6% (113)	129
$\chi^2(1) = 0.70, p > .40$			

Participant Suspicion

After participants made the pretrial determinations but before they completed any of the racial bias measures or case perception items, they responded to a prompt asking them: “what do you think this study is about?” Participants were classified as having suspicion if they used any

of the following words in their free response: race or racial, bias, discrimination, prejudice, Black, African American, profiling, mass incarceration. All other responses (e.g., “prosecutorial discretion”) including no response were coded as “other” suspicious. Of the 148 participants, 97 (66%) did not express suspicion that the purpose of the study was about racial bias, and 51 (34%) were suspicious. Of those 51 who expressed suspicion, 36 (71%) had the case vignette with the African American defendant. By defendant race, 36 of 78 (46%) of the participants who read the case vignette with the African American defendant were suspicious that the study was about racial bias, while 15 of 70 (21%) of those with the White defendant voiced such a concern.

Despite this large number of participants who suspected that the study was exploring race, it appears that this only impacted responses for the first item, the initial robbery charge. For the White defendant, participants who thought the study was about something other than race were more likely to charge with felony grand theft (21.8% compared to 0%), but those who were suspicious that the study was about race were more likely to charge with the more punitive felony robbery (53.3% to 18.2%) (Table 12). It appears as if believing the study was testing for racial bias led to participants charging the White defendant more harshly. For the African American defendant, those who suspected the study was about race dropped charges at 3.5 times the rate (16.7% versus 4.8%) as those who were not suspicious, but this was not statistically significant.

<i>Table 12. Participant Suspicion by Robbery Charge and Defendant Race</i> (<i>n</i> = 148)							
			Drop Charges	Felony Grand Theft	Felony Robbery	Felony Robbery & Felony Burglary	Total
African American Defendant¹	Suspicion: Other	% Within Condition	4.8%	11.9%	47.6%	35.7%	100.0%
		Count	2	5	20	15	42

	Suspicion: Race	% Within Condition	16.7%	5.6%	38.9%	38.9%	100.0%
		Count	6	2	14	14	36
White Defendant²	Suspicion: Other	% Within Condition	14.5%	21.8%	18.2%	45.5%	100.0%
		Count	8	12	10	25	55
	Suspicion: Race	% Within Condition	6.7%	0.0%	53.3%	40.0%	100.0%
		Count	1	0	8	6	15
¹ $\chi^2(3) = 3.94, p < .27$; Note: 4 cells (50.0%) have expected count less than 5. The minimum expected count is 3.23 ² $\chi^2(3) = 9.58, p < .05$; Note: 3 cells (37.5%) have expected count less than 5. The minimum expected count is 1.93 Note: cells within the same outlined box indicate categories whose <u>column</u> proportions differ from each other proportionally at the .05 level							

Re-arranging the chart to compare within participant suspicion helps to see the difference between believing the study was or was not about race (Table 13). For those who did not think racial bias was the point of the study, they were much more likely to charge the African American defendant with felony robbery, the third most punitive choice. Although the other column proportions were not statistically different from one another, a trend exists in which participants not suspicious about race were more lenient with the White defendant. They dropped charges for the White defendant at triple the rate (14.5% to 4.8%), and they assigned the two most punitive charges for the White defendant 63.7% of the time as compared to 83.3% for the African American defendant. For those who were suspicious that the study was examining racial bias, they dropped charges for the African American defendant at 2.5 times the rate as the White defendant (16.7% to 6.7%). They also charged the African American defendant with the two harshest charges in 77.8% of instances but did so for the White defendant in 93.3% of cases.

Table 13. Defendant Race by Robbery Charge and Participant Suspicion
(*n* = 148)

			Drop Charges	Felony Grand Theft	Felony Robbery	Felony Robbery	Total

						& Felony Burglary	
Suspicion: Other¹	African American Defendant	% Within Condition	4.8%	11.9%	47.6%	35.7%	100.0%
		Count	2	5	20	15	42
	White Defendant	% Within Condition	14.5%	21.8%	18.2%	45.5%	100.0%
		Count	8	12	10	25	55
Suspicion: Race²	African American Defendant	% Within Condition	16.7%	5.6%	38.9%	38.9%	100.0%
		Count	6	2	14	14	36
	White Defendant	% Within Condition	6.7%	0.0%	53.3%	40.0%	100.0%
		Count	1	0	8	6	15
¹ $\chi^2(3) = 10.77, p < .05$; Note: 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.33 ² $\chi^2(3) = 2.12, p < .55$; Note: 4 cells (50.0%) have expected count less than 5. The minimum expected count is 0.59 Note: cells within the same outlined box indicate categories whose <u>column</u> proportions differ from each other proportionally at the .05 level							

Despite this effect of study suspicion on the first outcome measure of robbery charge, no effects existed on any of the other measures (see Appendix C).

Research Question #1

The first research question asks whether implicit racial bias, explicit racial bias, implicit dehumanization bias, and/or explicit dehumanization bias are associated with pretrial decision making. Based on existing research, this study posed the following hypotheses:

1. With an African American defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be positively associated with more punitive initial charges, greater bail amounts, longer target plea offers, longer minimum acceptable plea sentence, and less charge reduction.

2. With a White defendant, anti-African American/pro-White implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias will be negatively associated with more punitive initial charges, greater bail amounts, longer target plea sentence, longer minimum acceptable plea sentence, and less charge reduction.

Each of the models for the outcome variables that address a different aspect of pretrial decision making is examined below.

Robbery Charge. After reading the case vignette, participants first determined whether they would charge the defendant for the act of robbery and, if so, at what level. Those outcomes were divided based on the race of the defendant and analyzed using multinomial logistic regression with drop charges as the reference group. Table 14 contains the results for the African American defendant. The only independent variable that was statistically significant was for the focal concerns protection of the community in the felony robbery outcome ($b = 5.38$, $p < .05$). This means that participants were more likely to charge the African American defendant with felony robbery instead of dropping the charges when they scored high on items related to protection of the community. None of the other independent variables were statistically significant for the African American defendant.

<i>Table 14. Multinomial Logistic Regression Results for Robbery Charge for African American Defendant (n=77)</i>						
Variable	Felony Grand Theft ^a		Felony Robbery ^a		Felony Robbery & Felony Burglary ^a	
	Beta	SE	Beta	SE	Beta	SE
Intercept	-19.33	14.98	-27.99	13.91	-29.69	13.91
Implicit Racial Bias	-1.91	2.85	-2.55	2.61	-2.59	2.62
Implicit Dehumanization Bias	-1.17	2.64	-3.04	2.43	-1.75	2.50
Explicit Racial Bias	-4.72†	2.57	-3.08	2.36	-3.58	2.38
Explicit Dehumanization Bias	-2.74	4.13	-1.69	3.81	-3.27	3.84
Race Conceptions Scale	-0.43	2.24	-0.89	2.11	0.18	2.11

Focal: Blame Defendant	1.16	1.75	1.56	1.72	1.88	1.73
Focal: Harm to the Victim	-0.02	0.94	0.86	0.89	1.40	0.92
Focal: Protection of the Community	5.55†	2.86	5.38*	2.70	5.12†	2.70
Focal: Likelihood of Conviction	2.11	2.26	3.12	2.12	2.08	2.12
^a Reference group: Drop Charges						
Model: $\chi^2(27) = 68.85, p < .001$						
† $p < .10$; * $p < .05$						

Unlike with the African American defendant, several independent variables had statistically significant associations with the robbery charge outcome for the White defendant (see Table 15). Participants who scored high on implicit dehumanization bias, meaning they thought of African Americans as less than human, were less likely to charge the White defendant with felony grand theft ($b = -10.97, p < .05$), felony robbery ($b = -11.51, p < .05$), or felony robbery and felony burglary ($b = -8.97, p < .05$) instead of dropping charges. In short, the more they dehumanized African Americans, the less punitively they charged the White defendant. In addition, those who scored high on the race conceptions scale (i.e., thinking of race as biological and not a social construct) were less likely to charge the White defendant with the most severe charges of felony robbery and felony burglary ($b = -3.15, p < .05$) as opposed to dropping charges. Regarding the focal concerns, both blame of the defendant and protection of the community were statistically significant for some of the charge choices, particularly felony robbery and felony burglary. The more participants blamed the defendant, the more likely they were to charge the White defendant with felony robbery ($b = 6.12, p < .05$) or felony robbery and felony burglary ($b = 6.20, p < .05$) as opposed to dropping the charges. Similarly, scoring high on protection of the community was associated with charging with felony robbery and felony burglary over dropping the charges ($b = 2.58, p < .05$).

Table 15. Multinomial Logistic Regression Results for Robbery Charge for White Defendant. (n=69)

Variable	Felony Grand Theft ^a		Felony Robbery ^a		Felony Robbery & Felony Burglary ^a	
	Beta	SE	Beta	SE	Beta	SE
Intercept	-4.05	6.72	-5.30	6.63	-10.49	6.76
Implicit Racial Bias	4.14	2.56	4.35†	2.52	4.33†	2.54
Implicit Dehumanization Bias	-10.97*	4.45	-11.51*	4.50	-8.97*	4.42
Explicit Racial Bias	-1.55	1.71	0.10	0.87	0.00	0.86
Explicit Dehumanization Bias	6.91†	3.57	6.79†	3.56	5.40	3.49
Race Conceptions Scale	-2.33†	1.35	-2.31†	1.35	-3.15*	1.38
Focal: Blame Defendant	4.33†	2.33	6.12*	2.43	6.20*	2.44
Focal: Harm to the Victim	-1.84†	1.03	-1.94†	1.02	-1.25	1.03
Focal: Protection of the Community	1.85	1.24	1.68	1.22	2.58*	1.23
Focal: Likelihood of Conviction	1.30	1.14	-0.12	1.11	0.11	1.16
^a Reference group: Drop Charges						
Model: $\chi^2(27) = 72.04, p < .001$						
† $p < .10$; * $p < .05$						

Gun Enhancement. Those who charged the defendant with one of the robbery options then made a determination about adding a gun enhancement. For the African American defendant, none of the independent variables had a statistically significant association with the outcome variable (Table 16).

<i>Table 16. Logistic Regression Results for Gun Enhancement for African American Defendant (n = 69)</i>		
Variable	Beta	SE
Constant	-7.45*	3.53
Implicit Racial Bias	-0.00	0.75
Implicit Dehumanization Bias	-0.38	0.84
Explicit Racial Bias	-0.61	0.57
Explicit Dehumanization Bias	0.18	1.16
Race Conceptions Scale	0.76	0.56
Focal: Blame Defendant	0.08	0.47
Focal: Harm to the Victim	0.12	0.31
Focal: Protection of the Community	0.54	0.45
Focal: Likelihood of Conviction	0.28	0.57
Model: $\chi^2(9) = 6.84, p = .65$		
* $p < .05$		

Only one predictor for the White defendant, the focal concern of blame for the defendant, was associated with the dependent variable ($b = -1.31$, $p < .05$). Contrary to the focal concerns perspective, the more participants believed the defendant was responsible for the crime, the less likely they were to add the gun enhancement (Table 17).

<i>Table 17. Logistic Regression Results for Gun Enhancement for White Defendant. (n = 60)</i>		
Variable	Beta	SE
Constant	-4.28	2.84
Implicit Racial Bias	0.42	0.88
Implicit Dehumanization Bias	1.76	1.10
Explicit Racial Bias	-0.32	0.44
Explicit Dehumanization Bias	-0.24	0.94
Race Conceptions Scale	0.29	0.43
Focal: Blame Defendant	-1.31*	0.56
Focal: Harm to the Victim	0.26	0.40
Focal: Protection of the Community	0.64	0.43
Focal: Likelihood of Conviction	0.80	0.66
Model: $\chi^2(9) = 11.78$, $p = .23$		
* $p < .05$		

Battery Charge. Participants also had the option of charging the defendant with a battery charge. For the African American defendant (see Table 18), a higher level of implicit dehumanization bias was associated with a lower likelihood of assigning a more punitive charge ($b = -1.51$, $p < .05$). In other words, the more participants thought of African Americans as less than human, the less punitively they charged the defendant, which was contrary to dehumanization bias theory. This was the only statistically significant variable in this condition.

<i>Table 18. Ordinal Regression Results for Battery Charge for African American Defendant (n = 69)</i>		
	Beta	SE
Outcome Threshold		
No Additional Charges	2.68	2.91
Misdemeanor Battery	7.13*	3.08
Misdemeanor Battery Causing Serious Bodily Injury	8.01*	3.11
Variable		

Implicit Racial Bias	-0.33	0.67
Implicit Dehumanization Bias	-1.51*	0.75
Explicit Racial Bias	0.46	0.46
Explicit Dehumanization Bias	-0.77	0.98
Race Conceptions Scale	-0.06	0.45
Focal: Blame Defendant	0.40	0.38
Focal: Harm to the Victim	0.09	0.25
Focal: Protection of the Community	0.11	0.37
Focal: Likelihood of Conviction	0.48	0.48
Model: $\chi^2(9) = 9.67, p = .38$		
* $p < .05$		

With the White defendant (see Table 19), none of the independent variables had a statistically significant relationship with the battery charge outcome.

<i>Table 19. Ordinal Regression Results for Battery Charge for White Defendant (n = 60)</i>		
	Beta	SE
Outcome Threshold		
No Additional Charges	1.30	2.22
Misdemeanor Battery	5.25*	2.35
Misdemeanor Battery Causing Serious Bodily Injury	6.25**	2.40
Variable		
Implicit Racial Bias	0.50	0.75
Implicit Dehumanization Bias	-0.05	0.89
Explicit Racial Bias	0.22	0.34
Explicit Dehumanization Bias	0.71	0.81
Race Conceptions Scale	0.14	0.36
Focal: Blame Defendant	-0.00	0.39
Focal: Harm to the Victim	0.11	0.31
Focal: Protection of the Community	0.62	0.34
Focal: Likelihood of Conviction	-0.03	0.56
Model: $\chi^2(9) = 9.67, p = .38$		
* $p < .05$; ** $p < .01$		

Total Charges. Summing the number of charges provided additional information to test whether the independent variables were factors in the determinations made by the participants. For the African American defendant (see Table 20), the focal concern of protection of the community was a statistically significant predictor of the number of charges ($b = 1.03, p < .05$).

Participants who expressed greater concern for protecting the community were more likely to assign more charges to the African American defendant. None of the other factors were associated with the outcome.

<i>Table 20. Ordinal Regression Results for Total Number of Charges for African American Defendant.</i> (<i>n</i> = 78)		
	Beta	SE
Outcome Threshold		
0 Charges	6.06*	2.66
1 Charge	6.44*	2.67
2 Charges	11.74**	3.02
Variable		
Implicit Racial Bias	-0.85	0.68
Implicit Dehumanization Bias	-0.90	0.72
Explicit Racial Bias	-0.89†	0.46
Explicit Dehumanization Bias	-0.16	0.97
Race Conceptions Scale	0.37	0.47
Focal: Blame Defendant	0.55	0.40
Focal: Harm to the Victim	0.23	0.24
Focal: Protection of the Community	1.03*	0.42
Focal: Likelihood of Conviction	0.51	0.46
Model: χ^2 (9) = 29.68, $p < .001$		
† $p < .10$; * $p < .05$; ** $p < .01$		

With the White defendant (see Table 21), none of the independent variables had a statistically significant relationship with the total number of initial charges.

<i>Table 21. Ordinal Regression Results for Total Number of Charges for White Defendant.</i> (<i>n</i> = 70)		
	Beta	SE
Outcome Threshold		
0 Charges	3.24	2.00
1 Charge	3.77*	2.01
2 Charges	7.13**	2.19
Variable		
Implicit Racial Bias	0.06	0.66
Implicit Dehumanization Bias	-0.61	0.75
Explicit Racial Bias	-0.13	0.32
Explicit Dehumanization Bias	0.30	0.79

Race Conceptions Scale	0.07	0.31
Focal: Blame Defendant	0.12	0.30
Focal: Harm to the Victim	0.17	0.25
Focal: Protection of the Community	0.37	0.29
Focal: Likelihood of Conviction	0.54	0.45
Model: $\chi^2(9) = 12.00, p = .21$		
* $p < .05$; ** $p < .01$		

Bail. After determining how to charge the defendant, participants learned that the recommended bail was \$100,000 and then provided a continuous response of their determination of the appropriate amount. For the African American defendant (see Table 22), only one independent variable was associated with the bail setting: the focal concern of harm to the victim ($\beta = 0.44, p < .05$). The greater level of concern for the harm caused to the victim then the larger amount the participant sought for the bail.

<i>Table 22. Linear Regression for Bail for African American Defendant (n = 69)</i>			
Variable	Unstandardized B	SE	Standardized Beta
Constant	1998.80	94172.52	
Implicit Racial Bias	14022.56	21362.53	0.08
Implicit Dehumanization Bias	21988.94	23069.35	0.12
Explicit Racial Bias	-9144.38	15235.51	-0.10
Explicit Dehumanization Bias	-9757.25	31063.93	-0.04
Race Conceptions Scale	9353.48	14733.42	0.09
Focal: Blame Defendant	852.24	12152.92	0.01
Focal: Harm to the Victim	25039.77	7887.95	0.44**
Focal: Protection of the Community	-8369.76	12394.13	-0.11
Focal: Likelihood of Conviction	-9337.82	15030.23	-0.08
F (9, 59) = 1.59, $p = 0.14$, $R = 0.442$, $r^2 = 0.195$			
** $p < .01$			

For the White defendant (see Table 23), two variables were statistically significant. Contrary to implicit bias theory, higher levels of pro-White racial implicit bias were associated with higher bail for the White defendant ($\beta = 0.34, p < .05$). However, consistent with predictions, more

concern for protection of the community was associated with setting a higher bail ($\beta = 0.30$, $p < .05$).

<i>Table 23. Linear Regression Results for Bail for White Defendant.</i> ($n = 59$)			
Variable	Unstandardized B	SE	Standardized Beta
Constant	-52578.94	87569.52	
Implicit Racial Bias	68807.07	30121.29	0.34*
Implicit Dehumanization Bias	-39499.63	34747.28	-0.16
Explicit Racial Bias	-12493.38	14145.980	-0.13
Explicit Dehumanization Bias	17328.47	33308.32	0.07
Race Conceptions Scale	-10112.69	13780.16	-0.10
Focal: Blame Defendant	10991.72	15286.37	0.14
Focal: Harm to the Victim	-4540.39	12163.14	-0.06
Focal: Protection of the Community	25749.94	12820.46	0.30*
Focal: Likelihood of Conviction	12966.75	21680.09	0.12
F (9, 49) = 1.90, $p = 0.07$, $R = 0.509$, $r^2 = 0.259$			
* $p < .05$			

Target Plea Sentence. The instructions informed the participants that the recommended sentence was 60 months in state prison. Based on that information, they made several decisions about the plea bargain, beginning with identifying their goal for the prison sentence. For the African American defendant (see Table 24), none of the variables had a statistically significant relationship with the outcome measure.

<i>Table 24. Linear Regression Results for Target Sentence for African American Defendant.</i> ($n = 69$)			
Variable	Unstandardized B	SE	Standardized Beta
Constant	19.58	24.68	
Implicit Racial Bias	1.14	5.60	0.03
Implicit Dehumanization Bias	-5.79	6.05	-0.12
Explicit Racial Bias	1.26	3.99	0.05
Explicit Dehumanization Bias	1.57	8.14	0.02
Race Conceptions Scale	5.96	3.86	0.23
Focal: Blame Defendant	.83	3.18	0.04
Focal: Harm to the Victim	2.48	2.07	0.18
Focal: Protection of the Community	-1.34	3.25	-0.07
Focal: Likelihood of Conviction	-2.99	3.94	-0.11

$$F(9, 59) = 0.95, p = 0.49, R = 0.355, r^2 = 0.126$$

For the White defendant (see Table 25), implicit racial bias was associated with the target sentence ($\beta = 0.33, p < .05$). Again, the result was counter to theory, as more pro-White implicit racial bias predicted a longer prison sentence for the White defendant.

Table 25. Linear Regression Results for Target Sentence for White Defendant. (n = 59)

Variable	Unstandardized B	SE	Standardized Beta
Constant	17.40	22.98	
Implicit Racial Bias	16.91	7.90	0.33*
Implicit Dehumanization Bias	1.72	9.12	0.03
Explicit Racial Bias	-0.16	3.71	-0.01
Explicit Dehumanization Bias	5.22	8.74	0.08
Race Conceptions Scale	-2.92	3.62	-0.11
Focal: Blame Defendant	2.68	4.01	0.13
Focal: Harm to the Victim	-2.10	3.19	-0.11
Focal: Protection of the Community	4.06	3.36	0.18
Focal: Likelihood of Conviction	2.81	5.69	0.10

$F(9, 49) = 1.56, p = 0.15, R = 0.472, r^2 = 0.223$
 * $p < .05$

Minimum Acceptable Plea Sentence. Participants stated the shortest prison sentence they would accept in the plea negotiation. For both the African American (Table 26) and White (Table 27) defendant, none of the variables were associated with the outcome.

Table 26. Linear Regression Results for Minimum Sentence for African American Defendant. (n = 69)

Variable	Unstandardized B	SE	Standardized Beta
Constant	13.21	16.46	
Implicit Racial Bias	4.75	3.73	0.16
Implicit Dehumanization Bias	-3.02	4.03	-0.09
Explicit Racial Bias	0.18	2.66	0.01
Explicit Dehumanization Bias	-5.79	5.43	-0.13
Race Conceptions Scale	4.04	2.58	0.22
Focal: Blame Defendant	-0.53	2.12	-0.04
Focal: Harm to the Victim	1.42	1.38	0.14
Focal: Protection of the Community	0.80	2.17	0.06
Focal: Likelihood of Conviction	-2.46	2.63	-0.13

$F(9, 59) = 1.57, p = 0.15, R = 0.440, r^2 = 0.193$

*Table 27. Linear Regression Results for Minimum Sentence for White Defendant.
(n = 59)*

Variable	Unstandardized B	SE	Standardized Beta
Constant	15.75	16.29	
Implicit Racial Bias	8.19	5.60	0.23
Implicit Dehumanization Bias	6.11	6.46	0.14
Explicit Racial Bias	0.38	2.63	0.02
Explicit Dehumanization Bias	-5.06	6.20	-0.11
Race Conceptions Scale	0.06	2.56	0.00
Focal: Blame Defendant	3.50	2.84	0.25
Focal: Harm to the Victim	-1.88	2.26	-0.14
Focal: Protection of the Community	1.43	2.38	0.09
Focal: Likelihood of Conviction	-1.12	4.03	-0.06

$F(9, 49) = 1.32, p = 0.25, R = 0.442, r^2 = 0.195$
 * $p < .05$

Charge Reduction. Finally, participants answered whether they would reduce the charges against the defendant as part of the plea negotiation. For the African American defendant, none of the predictors significantly predicted the outcome (see Table 28).

*Table 28. Logistic Regression Results for Charge Reduction for African American Defendant.
(n = 69)*

Variable	Beta	SE
Constant	-3.61	4.80
Implicit Racial Bias	1.16	1.06
Implicit Dehumanization Bias	-0.82	1.18
Explicit Racial Bias	0.90	0.73
Explicit Dehumanization Bias	0.52	1.64
Race Conceptions Scale	0.06	0.70
Focal: Blame Defendant	-0.61	0.63
Focal: Harm to the Victim	-0.13	0.40
Focal: Protection of the Community	-0.28	0.61
Focal: Likelihood of Conviction	0.68	0.79

Model: $\chi^2(9) = 5.30, p = .81$

For the White defendant, implicit racial bias was associated with the choice of whether to reduce the charges (see Table 29). As previously, this was counter to theory, as participants who

demonstrated a more pro-White implicit bias were also less likely to give the White defendant a break by reducing the charges.

<i>Table 29. Logistic Regression Results for Charge Reduction for White Defendant. (n = 60)</i>		
Variable	Beta	SE
Constant	-1.40	4.18
Implicit Racial Bias	3.89*	1.68
Implicit Dehumanization Bias	-1.36	1.55
Explicit Racial Bias	-0.17	0.60
Explicit Dehumanization Bias	1.20	1.24
Race Conceptions Scale	0.18	0.56
Focal: Blame Defendant	0.93	0.72
Focal: Harm to the Victim	-0.36	0.53
Focal: Protection of the Community	-0.13	0.53
Focal: Likelihood of Conviction	-0.84	0.91
Model: $\chi^2(9) = 12.72, p = .18$		
* $p < .05$		

Research Question #2

The second research question asked the relative relationships among implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias. Drawing on prior research, the following relationships were hypothesized within the full model:

1. Implicit racial bias will be a significant factor in outcomes when controlling for explicit racial bias.
2. Implicit dehumanization bias will be a significant factor in outcomes when controlling for explicit dehumanization bias.
3. Implicit dehumanization bias will be a more powerful factor in outcomes than implicit racial bias.
4. Explicit dehumanization bias will be a more powerful factor in outcomes than explicit racial bias.
5. Explicit racial bias will be the weakest predictor for outcomes.

H2a. Implicit-Explicit Racial Bias. For most of the outcomes, implicit racial bias was not a significant factor when controlling for explicit racial bias, but implicit racial bias was statistically significant in three models when controlling for explicit racial bias. It was never significant when participants made determinations for the African American defendant, and it was only significant with the White defendant for the bail ($\beta = 0.34, p < .05$), target plea sentence ($\beta = 0.33, p < .05$), and charge reduction ($b = 3.89, p < .05$). As noted previously, the direction was contrary to implicit bias theory, as greater pro-White implicit racial bias was associated with higher bail, a longer prison sentence, and a lower likelihood of offering a charge reduction.

H2b. Implicit Dehumanization Bias-Explicit Dehumanization Bias. Implicit dehumanization bias was not statistically significant with most outcomes when controlling for explicit dehumanization bias, but implicit dehumanization bias was statistically significant in two models when controlling for explicit dehumanization bias. It was associated with all three robbery charging outcomes for the White defendant ($b = -10.97, -11.51, -8.97$; each $p < .05$), and with the African American defendant a greater amount of implicit dehumanization bias was associated with a receiving a less punitive battery charge ($\beta = -1.51, p < .05$).

H2c. Implicit Dehumanization Bias-Implicit Racial Bias. Implicit racial bias was statistically significant in three models (bail, target plea sentence, charge reduction for the White defendant), while implicit dehumanization bias was a predictor in two models (initial robbery charge for the White defendant and initial battery charge for the African American defendant). Comparing the value of the two types of bias requires more than tabulating the total number of models in which they were statistically significant, though, so the discussion chapter has a thorough analysis.

H2d. Explicit dehumanization bias-explicit racial bias. Neither was associated with any of the outcomes measures in any of the models, so it is not possible to state that one was more powerful than the other.

H2e. Explicit racial bias. Given that both explicit racial bias and explicit dehumanization bias were not statistically significant in any model, explicit racial bias is not the weakest predictor. Both lacked any statistically significant associations with the outcome measures.

Chapter 6: Discussion

Introduction

This chapter will provide an interpretation of the results presented in Chapter Five. In the initial section, the answers to the first research question will be discussed, examining the results pertinent to each construct of racial bias. Next, the results relevant to the second research question will be explored, grouping the answers on two axes based on the hypotheses. Then, the additional constructs of genetic essentialism and the focal concerns perspective will be considered in light of the data. Given some of the surprising results, explanations and methodological limitations will be addressed. Nevertheless, this study has implications for both theory and social work. Finally, directions for future research will be proposed.

Research Question #1

The first research question asks whether each of the four forms of bias (implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias) influence decision making in pretrial. Overall, the data are complicated, so they require interpretation and context. A summary of the results can be seen in Table 30.

<i>Table 30. Summary of Results, Research Question #1</i>	
Outcome	Significant Variable
Robbery Charge	
African American Defendant	Focal Protection of the Community ¹
White Defendant	Implicit Dehumanization Bias
	Race Conceptions Scale ²
	Focal: Blame Defendant ^{1, 2}
	Focal: Protection of the Community ²
Gun Enhancement	
African American Defendant	None
White Defendant	Focal: Blame Defendant ^a
Battery Charge	
African American Defendant	Implicit Dehumanization Bias ^a
White Defendant	None
Total Charges	

African American Defendant	Focal: Protection of the Community
White Defendant	None
Bail	
African American Defendant	Focal: Harm to the Victim
White Defendant	Implicit Racial Bias ^a
	Focal: Protection of the Community
Target Plea Sentence	
African American Defendant	None
White Defendant	Implicit Racial Bias ^a
Minimum Acceptable Plea Sentence	
African American Defendant	None
White Defendant	None
Charge Reduction	
African American Defendant	None
White Defendant	Implicit Racial Bias ^a
¹ For Felony Robbery outcome	
² For Felony Robbery/Felony Burglary outcome	
^a Opposite direction of theory	

Implicit Dehumanization Bias. In this study, implicit dehumanization bias appears to have influenced participant decision making in regard to some of the outcome measures but not all. Implicit bias had a statistically significant relationship for robbery charge and battery charge, but in a different way with each model. For the robbery charge decision, participants with higher levels of implicit dehumanization of African Americans were more likely to charge the White defendant more leniently. Contrary to dehumanization bias theory, though, for the battery charging decision those with higher scores on the dehumanization IAT were less likely to charge the African American defendant more punitively.

The finding that implicit dehumanization bias is associated with a boost to the White defendant is consistent with prior research. Goff et al. (2014) found that anti-African American implicit dehumanization was associated with a reduced assessment of culpability for White suspects. In this study, the implicit dehumanization bias benefited the White defendant while controlling for the focal concern of blame, which was also statistically significant. The more

participants blamed the White defendant for the crime, then the more punitively they charged him. This suggests that implicit dehumanization of African Americans was a factor in its own right regardless of blame, which was similar yet also different from Goff and colleagues' (2014) results. Here, even when participants blamed the White defendant, they still were more likely to be lenient with him if they were high in anti-African American implicit dehumanization bias.

The result of higher scores on the dehumanization IAT predicting a lower likelihood to charge the African American defendant more punitively was a surprising result. It is possible that implicit anti-African American/pro-White dehumanization bias is associated with being more lenient with an African American defendant, but this would be contrary to other published studies in related areas as well as the neutral or opposite outcomes in this study. More likely, a methodological limitation was the basis of this data. These possible sources will be discussed later in this chapter.

Implicit dehumanization bias was not a statistically significant factor for the outcomes of gun enhancement, total charges, bail, target plea bargain, minimum acceptable plea bargain, and charge reduction. Several possible explanations exist, including that implicit dehumanization bias may not influence those outcomes. These additional explanations will be explored later in the discussion as several are methodological.

Implicit Racial Bias. For the bail, target plea sentence, and charge reduction variables, implicit racial bias was a predictive factor but not in the expected direction based on theory. Rather, an anti-African American/pro-White implicit bias was associated with setting a higher bail amount for White defendants, targeting a longer prison sentence as part of their plea bargain, and being less likely to offer them a charge reduction as part of that plea bargain. Although not common in the literature, such reverse effects can happen and are believed to be without

intention or awareness (Axt, Ebersole, & Nosek, 2016). Given the egalitarian responses in these outcome measures, it is also possible that the respondents were behaving differently to disguise their anti-African American/pro-White implicit racial bias (Shelton, Richeson, Salvatore, & Trawalter, 2005). According to this interpretation, people who are high in implicit racial bias change their explicit behavior as a reaction to it. Along those lines, participants' external motivation to not appear prejudiced could also impact their explicit behavior (Devine et al., 2002). The desire to not be perceived as acting in a prejudiced manner could have led participants to be more punitive towards the White defendant when they had more implicit racial bias. Thus, some prior research provides a basis for understanding the way that participants in this dissertation may have come to make more unfavorable decisions for the White defendant despite their implicit racial bias in favor of Whites.

In the models with the African American defendant, implicit racial bias was not associated with making decisions detrimental to him across all of the outcomes measures. Given the body of research that has found implicit racial bias to be a factor in many racially disparate outcomes related to the justice system (Correll et al., 2014; Eberhardt et al., 2004; Graham & Lowery, 2004; Levinson et al., 2010), this is an unexpected result. As with the unexpected prevalence of a low association between implicit dehumanization bias and the dependent variables, possible explanations will be discussed later in this chapter. Overall, these results suggest that implicit racial bias was not as meaningful a predictor in prosecutorial pretrial decision making as in the existing literature on other behavioral outcomes.

Explicit Dehumanization Bias. Explicit dehumanization bias, as operationalized as infrahumanization, was not a statistically significant predictor of any dependent variable. In prior research, infrahumanization has been associated with racially disparate behaviors (Čehajić

et al., 2009; Cuddy et al., 2007), so this result was unexpected. However, the mean score on the infrahumanization measure was -0.03, indicating that participants on average did not attribute more secondary or primary emotions to either African Americans or Whites. This is an unusually egalitarian response for a measure of infrahumanization, but given that participants came from the UCLA School of Law, which is the only law school in the country with a critical race studies program, it is possible that they have a low level of explicit dehumanization bias. This may be the result of self-selecting into this particular law school or the education itself in which professors infuse a critical race theory perspective into many classes. It is also possible that the participants have learned to not answer in a manner that indicates explicit dehumanization bias. Of the 146 people who completed the infrahumanization measure, 32 (21.9%) rated all the emotions as being equally common for African Americans and Whites. It is unknown whether that was individuals' honest assessment, objection to the measure through uniform responses, or effort to appear race neutral in their response. Supportive of the idea that the group held a racially egalitarian outlook but perhaps not as much as they presented, they also possessed a low amount of both implicit cognitions.

Explicit Racial Bias. Explicit racial bias was not statistically related to any dependent variables. This is inconsistent with existing research that has found explicit measures of racial bias to be predictive of behavior, albeit less than implicit racial bias (Greenwald et al., 2009). For this sample, the mean MRS score was 1.70 on a 1 to 7 scale, indicating a low level of explicit racial bias. It was so low that participants nearly averaged the lower bound. As such, it is possible that the MRS was not sensitive enough to measure explicit racial bias in this sample. As with the measure of explicit dehumanization bias, this sample may have had a low amount of explicit racial bias or they may have learned to not present a higher amount.

Research Question #2

The second research question sought to answer the relative impact of implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias on pre-trial decision making. The five hypotheses based on this question can be examined along two axes: (1) comparing the implicit measures with their corresponding explicit measures, and (2) comparing dehumanization bias with racial bias. The results can be analyzed along these two axes, because the regression analyses for the outcomes included each of the independent variables to measure the four bias constructs.

Implicit versus explicit. One of the two implicit constructs, implicit dehumanization bias and implicit racial bias, was a statistically significant predictor for either the African American or White defendant in five of the eight outcomes. Higher anti-African American implicit dehumanization bias was associated with a less punitive initial robbery charge for the White defendant but also a less punitive battery charge for the African American defendant while controlling for explicit dehumanization bias. Greater pro-White implicit racial bias was associated with three outcomes for the White defendant while controlling for explicit racial bias: setting a higher bail amount, targeting a longer prison sentence for the plea bargain, and being less likely to offer a charge reduction. Even though the direction of the results was often contrary to theory, each implicit variable appeared to be measuring a cognitive process that was distinct from the explicit measure of the same theoretical construct, which is consistent with the literature of both areas (Goff et al., 2014; Greenwald et al., 2009). Thus, implicit dehumanization bias and implicit racial bias were factors in pretrial decision making with certain outcomes even while accounting for people's explicitly stated beliefs.

Dehumanization versus racial bias. The second axis concerns comparing dehumanization bias with racial bias. Notably, few studies have simultaneously measured both, especially in their implicit forms. As the implicit measures of each were at times statistically significant and the explicit measures were not at all significant, the implicit comparison is more consequential. Implicit dehumanization bias and implicit racial bias were never statistically significant predictors in the same model. Implicit racial bias predicted more outcomes (3 to 2), but the direction of the association for implicit dehumanization bias with the robbery charge was the only instance that was consistent with theory and most prior research. It is possible that the unexpected results could be unique to this study or due to a factor that wasn't measured. In determining which construct was more influential, caution needs to be employed in examining the regression coefficients, because several of the parameters had large standard errors. As such, it is important to not overemphasize the results, as they may be susceptible to change if the sample were larger.

Looking at the context of the outcomes provides additional perspective on interpreting the results. Implicit dehumanization bias was statistically significant for the robbery charge for the White defendant, and initial charging decisions may be the most consequential in the legal system. Prior research has found that federal courts sentenced African Americans for a length of time 10% longer than comparable White defendants and that most of the difference resulted from the prosecutor's initial charging decisions (Rehavi & Starr, 2014). As seen in other areas of pretrial research, early decisions can produce cumulative disadvantage for African American defendants on later outcomes (Baumer, 2013; Spohn, 2015; Zatz, 1987). Therefore, it is important to be mindful of the impact of the initial charging decisions and the role that implicit dehumanization bias may play.

Additional Constructs

Genetic Essentialism. The Race Conceptions Scale (RCS) measured participant endorsement of the biological basis for race. The RCS predicted determination of the initial robbery charge for the White defendant. The more that participants believed that race was a biological fact and not a social construct, the less punitively they charged the White defendant. This finding is consistent with existing research (Bastian & Haslam, 2006; Jayaratne et al., 2006; Keller, 2005; M. J. Williams & Eberhardt, 2008). Interestingly, a belief in genetic essentialism helped the White defendant but did not appear to hurt the African American defendant. A basis for interpretation of this result appears in a recent study by Kahn et al. (2016). They found that police officers used less force with highly physically stereotypical looking White suspects, revealing that such an appearance can be a protective factor. The researchers concluded that “protecting Whiteness” may be as or even more important than derogating those who are not White. Thus, racial disparities in police behavior may reflect a combination of anti-African American and pro-White bias that protects Whites. Unlike Kahn et al. (2016), this dissertation did not look at intragroup bias, but the result of a genetic essentialist belief helping the White defendant suggests that whiteness was a protective factor for intergroup bias. The more that participants held a belief that race was biologically rooted, the more they protected the “biologically White” defendant by charging him more leniently. Nevertheless, it is important to note that this was the only model in which the RCS was a predictor of the dependent variable. This was a surprising result given the extant literature on the influence of genetic essentialism. As with the other unanticipated lack of statistical significance for the independent variables, the methodological concerns will be addressed later in this chapter.

Focal Concerns. Four additional independent measures of case perception tested the influence of the three focal concerns: (1) defendant's blameworthiness and the harm caused to the victim, (2) protection of the community, and (3) likelihood of conviction. The independent measures were statistically significant in the following instances:

- Blame of the defendant: (1) robbery charge for the White defendant and (2) gun enhancement for the White defendant (contrary to the focal concerns perspective)
- Protection of the community: (1) robbery charge for the African American defendant (2) robbery charge for the White defendant, (3) total charges for the African American defendant, and (4) bail for the White defendant
- Harm to the victim: (1) bail for the African American defendant
- Likelihood of conviction: not significant

Each of these associations except one was in the direction predicted by theory: the more the participant held a belief consistent with the focal concern, the more likely he or she was to make a more punitive decision regarding the defendant. As with the bias variables, the data provide some support for the constructs but also falls short of the amount expected. It appears that the defendant's blameworthiness/the harm caused to the victim as well as the protection of the community informed some of the decisions made by the research participants. However, based on theory, a more robust relationship was expected.

It is possible that the case perceptions items used to measure the focal concerns perspective were inadequate for operationalizing the construct, especially as they were primarily devised for this study. A few drew from prior research by Edkins (2011). Another interpretation is that including the measures of racial bias may have accounted for some of the variation previously attributed to the focal concerns. This was a primary reason for including both in the

study. In preliminary regression analyses of just the focal concerns measures on the outcome variables, though, the coefficients and significance tests were quite similar. Occasionally, a focal concern measure was slightly *less* associated with an outcome in these models. This suggests that the influence of the focal concerns and cognitive biases were distinct such that the focal concerns items were not inadvertently measuring racial bias. Finally, the lack of association of the likelihood of conviction focal concern with any outcomes may reveal that law students are not accustomed to thinking about the downstream result of a case. This focal concern reflects a more practical element of strategy that may be more common to working prosecutors. In conclusion, this study offers mixed evidence on whether the focal concerns perspective is informative. Previous research that had supported the usefulness of the approach had largely been retrospective analysis of large data sets, so the experimental methodology employed here provides a new vantage point. Continued research with this approach may be useful for further deciphering the extent that the focal concerns perspective is explanatory.

Interpretation of Non-Significant Results

Although this study found some association between either implicit dehumanization bias or implicit racial bias on five of the eight outcomes studied, theory predicted both a different direction for many of the associations and a greater number of statistically significant associations. In addition to the variable-specific explanations above, several possible reasons exist across models for the non-significant results. To begin, it is possible that implicit dehumanization bias or implicit racial bias produce limited influence on pretrial decision making. Although research in other areas of cognition in general and the justice system in particular suggests that those two forms of bias would be factors, perhaps pretrial decision making is distinct. Unlike police interactions with suspects, it does not involve split-second

decisions under intense cognitive load (Correll et al., 2014; Goff et al., 2014). Having the time to reason can reduce the impact of implicit biases (Payne, 2005, 2006; Sherman et al., 2008). However, making pretrial determinations is similar to making decisions about guilt, and prior research has found an association between racial implicit bias and determination of guilt using a similar case vignette methodology (Levinson et al., 2010). Thus, pretrial decision making may be unique in an unidentified way, but it seems more likely that another explanation exists.

Participant suspicion of the study's purpose to examine racial biases may also have impacted the results. As noted, participants who did not suspect the racial aspect of the study were more punitive in the initial robbery charge for the African American defendant, and suspicious participants were more punitive in the initial robbery charge for the White defendant. The other dependent variables did not vary across participant suspicion. In fact, participants who were suspicious of the racial exploration of the study and those who were not answered the remaining six outcomes in the same racially egalitarian way. The initial robbery charge was the first of seven outcome measures, and participants answered about their study suspicion after completing all seven. Importantly, they completed the suspicion measure before the measures of racial bias, and they were not able to go back to change their prior determinations. Therefore, the suspicion rating is not consistent with the results as participants became egalitarian in their pretrial decisions at the end after not answering the first measure that way. This suggests either they were not accurate in their description of their suspicion or they found a way to make their responses not racially disparate. However, this does not answer which pretrial decisions were most reflective of how they would truly behave as prosecutors: the racially disparate initial battery charge or the subsequent egalitarian decisions. Ultimately, it raises the question of

whether their pretrial decisions were influenced by their suspicions about the deeper purpose of the study.

The study was designed to conceal the purpose of assessing the role of cognitive racial biases. In prior research using a case vignette, White mock jurors rated the African American defendant more guilty than the White defendant when race was only made salient through labeling the characters' race (Ellsworth & Sommers, 2000; Sommers & Ellsworth, 2001). Not only was this method used in this study, but the current case vignette had produced racially disparate responses in a prior study (Khogali & Penrod, unpublished manuscript). Although it is hard to decipher the impact of participant suspicion on the study, it seems likely it influenced the outcomes. The initial robbery charge outcome was the most racially disparate, and consistent with that outcome, the racial bias constructs were more prominent and consistent with theory. With the lack of racially disparate pretrial decisions with the other measures, it became less likely that cognitive biases would be factors in those outcomes. Finally, the combination of participant suspicion, equality in most of the outcomes, and the opposite of theory implicit associations for some of those outcomes adds weight to the argument that participants made a motivated choice to correct their own implicit racial bias with their pretrial decisions. Perhaps future research with a different methodology might find different results. The following limitations provide additional explanations for the results.

Limitations

Several methodological limitations may also have shaped the results, limiting the effectiveness of the study. The power analysis indicated that 84 participants were needed for each multiple linear regression model, but only 77 people completed all the measures for the African American defendant and 69 finished for the White defendant. As a result, it is possible

that more independent variables would have been statistically significant with a fully powered study. This was particularly true for the initial robbery charge, where several variables had p values between 0.05 and 0.10. The limited sample size could also have produced false positives in the results as they contributed to the presence of some large standard errors in some of the regression equations. In particular, this may have been a source of the associations that were contrary to theory.

Attrition is another potential source of bias. After completing the consent form, 190 people started the study, and 155 (82%) completed all the measures. It is possible that those who did not finish the study were in some way distinct from those who did, particularly the 15 people who did not complete the IAT section. If they were different, it is unknown in what direction they may have biased the results.

Bias in the sample may also have impacted the study. As previously mentioned, the UCLA School of Law is the only American law school that has a critical race studies program. The purpose is to attract students who have an interest in studying race, so the pool from which this study drew was likely skewed to have thought extensively about race and worked to reduce their own biases. This is supported by the low mean scores in the sample for implicit racial bias (0.22) and implicit dehumanization bias (0.20). In addition, although the study was advertised in the same manner and process to all students (except for recent graduates who received only one solicitation email), it is possible that those students who chose to participate were less likely to be biased. Furthermore, the education from the UCLA School of Law may be working in such a fashion as to reduce both implicit and explicit bias. The largely egalitarian responses on the dependent variables could be the result of students having learned to reduce the impact of their biases or having eliminated them altogether. The UCLA School of Law invests considerable

effort to educate on race, and perhaps they are successful in their mission. In a more cynical take, it is also possible that students have learned in that environment to present themselves as without bias and/or to hide that bias when answering questions on a case vignette. Regardless, plausible pathways exist for the UCLA School of Law to have biased the research sample.

Because the sample was law students, they may have responded differently than actual prosecutors. Even though the sample likely included people who will be prosecutors in the future, they are not yet doing that job. As a result, they have not had the training or experience of being an assistant district attorney. Performing the work likely shapes the way one perceives, understands, and responds to case information, so prosecutors may respond differently than the current sample. Moreover, working in a justice system that disproportionately arrests and convicts African Americans could also shape prosecutors' associations about African Americans, a process that law students have not experienced so intimately.

Finally, the experimental methodology also relied on a single case vignette. An unseen or unanticipated characteristic of the vignette may have been a factor in the results. Along those lines, in an actual court case the prosecutor would have more information on which to base decisions than the 6-page mock police report in this study. The experimental materials were chosen to provide verisimilitude while balancing the time and attention limitations of the study, so hopefully the proper balance was achieved.

Implications

Theory. Although reasons exist to be cautious about interpreting the results from this study, they still add to the literature in a couple of key ways. The data support the importance of implicit cognitions, whether they be implicit dehumanization bias or implicit racial bias, for pretrial decision making. One of the implicit measures was a statistically significant factor for

five out of the eight outcomes, but neither explicit measure was a predictor for any of the outcomes. As all four of the bias variables were included in each regression equation, this indicates that the implicit cognitions were associated with the outcome while accounting for the explicit biases. This is consistent with prior research that has found that implicit measures are better predictors than explicit ones for dependent variables dealing with race (Greenwald et al., 2009). In addition, this finding extends the literature on the influence of implicit racial bias and implicit dehumanization bias on the justice system to pretrial decision making, an area which has not been studied to date.

As noted, few prior studies have simultaneously measured implicit dehumanization bias and implicit racial bias. That work has found that implicit dehumanization bias predicted outcome measures while controlling for implicit racial bias, which was not statistically significant (Goff et al., 2008, 2014). This study confirmed those results for the outcomes of initial robbery charge and initial battery charge. Even though this result was not present in the other outcomes, it is still noteworthy given the lack of study of this comparison. However, it should not be taken out of context as this effect was not present in the six other outcomes, and implicit racial bias was a predictor for three outcomes while implicit dehumanization bias was not, albeit with the caveat that the direction of the effect was unusual. Therefore, this study offers some support to the importance of implicit dehumanization bias, but it is not firm backing.

Understanding Racial Biases. This study points to the complexity of racism in the justice system beyond its many structural and institutional sources. Only one outcome measure, the initial battery charge decision, had a hint of racial inequality, even though research on actual case data sets has revealed disparities. Nevertheless, each of implicit dehumanization bias, implicit racial bias, and the belief in race being biological was associated in various models with

the outcomes for either the African American or the White defendant. This indicates that cognitive biases influence pretrial decision making even when disparities are not present. It also suggests that they may have a more pronounced effect when the outcomes are racially disparate.

In particular, this study reveals that racial bias may be important in the prosecutor's decision about charging the defendant, perhaps the most important step in the pretrial process. An anti-African American implicit dehumanization bias predicted worse outcomes for the African American defendant relative to the White defendant for the initial robbery charge. In addition, respondents' belief in the biological basis for race was associated with a more lenient initial robbery charge for the White defendant. This suggests a conceptual framework in which African Americans are thought of as a separate biological race that is less human than that of Whites. Combined with research identifying the tendency to infer an individual's characteristics and behaviors as based on one's genetic makeup (Dar-Nimrod & Heine, 2011; Haslam, 2011), this supports that racial discrimination may have roots in the beliefs that humanity can be defined by genes and that those who are African American are different and less human. Therefore, the results in this study about the roles of implicit dehumanization bias and the biological conception of race in pretrial decision making bolster knowledge about the general process of racial discrimination. The global positive or negative association about racial groups that was measured by the implicit racial bias measure was not related to a derogatory effect on African Americans. Rather, it was the specific dehumanization of African Americans.

The results for the initial robbery charge also revealed an interesting nuance with racial bias. The anti-African American/pro-White implicit dehumanization bias was associated with a more lenient robbery charge for the White defendant. Similarly, the belief in the biological basis of race was associated with a less punitive charge for the White defendant. Thus, both attitudes

appeared to help the White defendant but not hurt the African American defendant. This was consistent with prior research (Goff et al., 2014), and supports the interpretation that racial cognitive biases also operate by “protecting Whiteness” (Kahn et al., 2016). The results in this study point to the importance of white privilege as the White defendant benefited from his race, creating the disparity in the initial robbery charge. Therefore, in order to accurately understand racial bias, one must account for the boost provided by Whiteness in addition to the potential derogation placed on Blackness.

Future Research

As has been emphasized in this analysis, the results from this study should be carefully interpreted. Further study of the associations between the forms of bias and pretrial decision making is necessary with a larger sample, different population, and more deceptive methodology. As noted, the current study sample was shy of the size deemed necessary in the power analysis, so that should be rectified in future research. In addition, enlisting participants from a population that is more reflective of the biases of the general American population is important. As noted, this sample of UCLA law students scored remarkably low on both implicit and explicit biases. Moreover, research with working prosecutors would be an important next step to improve the generalizability of the results. It is very possible that they would differ from law students in the ways they perceive and understand case information as well as their decision making process. Furthermore, having participants respond to case vignettes with a variety of crimes would improve the ability to detect effects from racial bias. Lastly, adopting a methodology that addresses participant suspicion is necessary even though that can be challenging in research on race. One option would be to employ the Judgment Bias Task that uses multiple items in rapid section standardized against a racially neutral outcome (Axt,

Nguyen, & Nosek, Unpublished manuscript). This new method has been effective at reducing the impact of participant suspicion in studies of sensitive outcomes.

Future research should also examine the influence of cognitive bias in the decision making of defense attorneys. Even though they do not set the initial charges, they are involved in the negotiations over bail and plea bargains. As such, their advocacy on behalf of their clients may be shaped by the forms of bias measured in this study. For example, White capital defense lawyers have displayed the same implicit biases as the general population (Eisenberg & Johnson, 2004). It is possible that defense attorneys have the same biases prevalent in the American population, and those attitudes could influence the way they handle cases. Research that is tailored to the decisions made by defense attorneys would be an important addition to the study of racial disparities in pretrial decision making.

A recent line of research argues that implicit biases are not stable individual attitudes; as such, they better predict disparities at an aggregate level. According to this “bias of crowds” model, implicit biases are best understood as social phenomenon that pass through the minds of individuals but exist with greater stability in situations (Payne, Vuletich, & Lundberg, 2017). Therefore, their impact is evident in population level disparities and not necessarily in individual level behavior. In research that supports this conception, areas with higher levels of implicit racial bias had greater racial disparities in police shootings (Hehman, Flake, & Calanchini, 2017). Future research could compare by county the levels of implicit biases in the population with court case data sets containing information on pretrial decisions. This could be particularly useful as districts attorney are usually elected representatives by counties, so they reflect the attitudes and beliefs of their populations.

Potential Social Work Contributions

If future research finds that implicit racial bias and/or implicit dehumanization bias are associated with racial disparities in pretrial decision making, then interventions to reduce or hopefully eliminate their impact should be designed and tested. Such efforts can take one of two forms: reducing implicit biases or limiting the situations where they can influence behavior. In a meta-analysis of research to change implicit biases, Forscher and colleagues (2017) found evidence that they can be altered across type, populations, measures, and research designs. However, they also found that efficacy at changing implicit bias varies greatly by approach. Alterations in implicit biases resulted in similar but smaller changes in explicit biases, but they still did not produce changes in behavior. In addition, changes in implicit biases did not mediate changes in either explicit biases or behavior. Although it is possible that an effective technique for translating changes in implicit biases to behavior has not yet been devised, evidence suggests that this would be a difficult route to accomplish.

Rather than focusing on changing implicit biases, another approach would be to reduce the opportunity for them to influence behavior. For example, when prosecutors need to make decisions about initial charge, bail, and plea bargains, the case could be referred to a committee that is blind to the race of the defendant. This would require an extensive cleaning of the case file to remove reference not only to the race of the defendant but to other potential clues of the defendant race: the survivor/victim race, names, and locations of the crime and defendant residence. Holding blind orchestra auditions behind a screen notably increased the proportion of women in symphony orchestras (Goldin & Rouse, 2000). If prosecutors do not know the defendant race, then it is more difficult for their cognitive biases to impact their decisions. Other potential techniques include requiring the decision maker to explain their evaluations to a

supervisor (Ford, Gambino, Lee, Mayo, & Ferguson, 2004) or devising strategies that reduce cognitive load by allowing or requiring prosecutors to slow down and focus (Payne, 2005, 2006; Sherman et al., 2008). Importantly, as this study and others indicate (Goff et al., 2014), interventions should work to eliminate the advantage afforded to White defendants in addition to the derogation of African American defendants. If additional research indicates that implicit biases shape prosecutors' decision making, then a number of methods can be employed to diminish the opportunities for those biases to produce the racial disparities evident in the criminal justice system.

Given the orientation of social work knowledge and training to understanding the person in the environment (Bronfenbrenner, 1979), social workers possess a unique skill set to create and implement these interventions. They have the ability to assess a work environment or social situation to determine macro level factors that may be shaping behavior and then address them through shaping policy and programmatic intervention. The primary mission of the social work profession is to enhance human well-being, particularly for people who are vulnerable and oppressed, and the preparation through education and work often includes a racial justice lens. Therefore, the practitioners of social work are well situated to design and apply interventions to reduce the effect of implicit biases, whether they be dehumanization or racial, in the legal system. Nevertheless, these efforts should be collaborative with legal actors. Prosecutors (and defense attorneys and judges) possess more depth and breadth of knowledge about the way the court system operates and would likely have greater stakeholder buy-in for any proposed modifications, so social workers should work hand-in-hand with them. The combination of these groups has potential to accomplish meaningful change.

Conclusion

This dissertation is the first known study to test the relationships between implicit racial bias, explicit racial bias, implicit dehumanization bias, and explicit dehumanization bias and pretrial decision making, operationalized as prosecutorial discretion on initial charge, bail, and plea bargains. Results indicate that both implicit dehumanization bias and implicit racial bias are associated with pretrial decision making. Higher levels of anti-African American/pro-White implicit dehumanization bias predicts more favorable initial charging decisions for the White defendant relative to the African American defendant in one outcome. However, a greater amount of anti-African American/pro-White implicit racial bias is associated with higher bail, a more punitive target plea sentence, and a lower likelihood of charge reduction for the White defendant. Neither explicit dehumanization bias nor explicit racial bias are factors in pretrial decision making. For several methodological reasons, these results should be interpreted with caution, and future research should continue to study these relationships, particularly with working professionals in the field.

Appendix A: Case Vignette

African American Defendant

Instructions:

On the following pages we will provide you with information about a criminal case in which the defendant, a 23 year old black male, Robert Weston, has been arrested for a robbery. He has no prior record.

It is alleged that Robert Weston stole \$1.4 million worth of jewelry from the Los Angeles jewelry store Greenwich & Co. on July 21, 2015.

Weston became a suspect for this crime on the basis of a tip received which indicated that he resembled the sketch that appeared on a news broadcast. The sketch was based on a description made by Kelly Simmons, a 28-year-old white female, who was the manager working at the jewelry store when the robbery occurred. Kelly Simmons selected Robert Weston's picture after viewing a photo array shown to her by police.

You will review the case file, including information about the evidence against the defendant, on the pages to follow. The case file contains the following:

Police Report

Witness Statement

Eyewitness Identification Evidence

Please review the pages carefully as the website does not permit you to go back to previously viewed pages.

LOS ANGELES POLICE DEPARTMENT

INCIDENT/OFFENSE REPORT

Initial ☒ Follow-Up ☐ Arrest ☐ Insurance Report ☐ Juvenile Arrest ☐

CR # 09-5648	Type of Offense(s) Code or Statute 1. Robbery 2.	Reporting Officer: R. Trent Asst. Officer: M. Young Transport. Offr.																													
Reported: Date 7 / 21 / 15 Time 1130	Occurred From: Date 7 / 21 / 15 Time 1115	Occurred To: Date 7 / 21 / 15 Time 1130																													
EXACT LOCATION OF CRIME: 550 S. Hill St. Los Angeles 90013		Tabulation (Office use Only) Area:																													
LOCATION CODE																															
<table border="0"> <tr> <td>1. Air/Bus/Train</td> <td>8. Department/Discount Store</td> <td>15. Jail/Prison</td> <td>22. School</td> </tr> <tr> <td>2. Bank/Savings & Loan</td> <td>9. Drug Store/Dr. Office</td> <td>16. Lake/Waterway</td> <td>23. Service Station/Gas Station</td> </tr> <tr> <td>3. Bar/Night Club</td> <td>10. Field/Woods</td> <td>17. Liquor Store</td> <td>24. Specialty Store</td> </tr> <tr> <td>4. Church/ Synagogue</td> <td>11. Government/Public Building</td> <td>18. Parking Lot/Garage</td> <td>25. Other/Unknown</td> </tr> <tr> <td>5. Commercial/Office Building</td> <td>12. Grocery/Supermarket</td> <td>19. Rental/Storage Facility</td> <td></td> </tr> <tr> <td>6. Construction Site</td> <td>13. Highway/Road/Alley</td> <td>20. Residence/Home</td> <td></td> </tr> <tr> <td>7. Convenience Store</td> <td>14. Hotel/Motel</td> <td>21. Restaurant</td> <td>Enter #: 24</td> </tr> </table>				1. Air/Bus/Train	8. Department/Discount Store	15. Jail/Prison	22. School	2. Bank/Savings & Loan	9. Drug Store/Dr. Office	16. Lake/Waterway	23. Service Station/Gas Station	3. Bar/Night Club	10. Field/Woods	17. Liquor Store	24. Specialty Store	4. Church/ Synagogue	11. Government/Public Building	18. Parking Lot/Garage	25. Other/Unknown	5. Commercial/Office Building	12. Grocery/Supermarket	19. Rental/Storage Facility		6. Construction Site	13. Highway/Road/Alley	20. Residence/Home		7. Convenience Store	14. Hotel/Motel	21. Restaurant	Enter #: 24
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6. Construction Site	13. Highway/Road/Alley	20. Residence/Home																													
7. Convenience Store	14. Hotel/Motel	21. Restaurant	Enter #: 24																												
Case Disposition: 1-Arrested 2-Exception 3-Unfounded 4-Pending ENTER NUMBER 1																															
Cleared Exceptionally: 1-Death of Offender 2-Prosecution Declined 3-Extradition Denied 4-Victim Refused to Cooperate	Offense: 1- Attempted 2- Completed Enter Number 2	Entry F-Forcible N-Non-forcible Enter Letter N	Suspect Using: C-Computer Used A-Alcohol Related D-Drug Related Enter Letter _____																												

5-Juvenile/No Custody			
6-Not Applicable			
Enter # _____ Clearance Date / /			
Weather: 1-Clear 2-Cloudy 3-Raining 4-Fog/Smog 5-Snow/Sleet 6-Hailing 7-Unknown ENTER # <u>2</u>			
NAME OF VICTIM(S) Kelly Simmons		PHONE#: Home (<u>818</u>) <u>438-2987</u>	
Greenwich & Co.		Work (<u>213</u>) <u>495-6618</u>	
Victim's Address: 13164 Hartsook St.			
CITY: Sherman Oaks		STATE: CA ZIP: 91423	
Victim's Occupation:		Victim's Business Address:	
Manager at Greenwich & Co.		550 S. Hill St., Los Angeles, CA 90013	
Victim's Demographic Information			
DOB: 6/21/87	AGE: 28	SEX: F	HT: 5'6" WT: 155 HAIR: BLK EYES: BRN
OLN#	STATE:	SSN: 716-90-6521	
VICTIM'S RACE		VICTIM'S ETHNICITY:	VICTIM'S RESIDENT STATUS
1-White 4-Asian/Pacific Islander		1-Hispanic	R-Resident
2-Black 5-Unknown		2-Non Hispanic Origin	N-Non-resident
3-American Indian/Alaskan Native		3-Unknown	U-Unknown
ENTER # <u>1</u>		Enter # <u>2</u>	ENTER LETTER <u>R</u>
VICTIM INFORMATION – TYPE OF VICTIM			
1-Adult 2-Juvenile 3-Business 4-Financial Institution 5-Government 6-Religious Organization			
7-Society or Public 8-Other 9-Unknown 10-Law Enforcement Officer ENTER NUMBER <u>1, 3</u>			
IF VICTIM WAS INJURED IN ANY OF THE FOLLOWING OFFENSES, PLEASE ENTER TYPE OF INJURY- CHOOSE UP TO FIVE			
Kidnapping	Forcible Fondling	1-None	6-Unconscious
Forcible Rape	Aggravated Assault	2-Apparent broken bones	7-Minor Injury
Forcible Sodomy	Simple Assault	3-Possible Internal Injury	8-Other Major Injury
Sexual Assault with Object	Extortion/Blackmail	4-Severe Lacerations	9-Other
Robbery		5-Loss of teeth	ENTER NUMBER <u>7</u>

RELATIONSHIP OF VICTIM TO SUSPECT								
LINKAGE- IF VICTIM'S RELATIONSHIP WITH SUSPECT IS DOMESTIC, COMPLETE DOMESTIC VIOLENCE ATTACHMENT								
1-Spouse	8-In Law	15-Child of Intimate Partner	25-Child of Boyfriend/Girlfriend					
2-Common Law Spouse	9-Step Parent	16-Household Member	26-Employee					
3-Parent	10-Step Child	17-Acquaintance	27-Employer					
4-Sibling	11-Step-Sibling	18-Friend	28-Otherwise Unknown					
5-Child	12-Other Family Member	19-Neighbor	29-Relationship Unknown					
6-Grandparent	13-Estranged Spouse	20-Babysitter	30-Stranger	ENTER #	<u>30</u>			
7-Grandchild	14-Intimate Partner	21-Boyfriend/Girlfriend	31-Victim is Suspect	(Choose One)				
SUSPECT INFORMATION								
NAME: Robert Weston PHONE # Home 323-885-1093 Work _____								
ADDRESS: 2196 Lewis Ave		CITY: Los Angeles		STATE: CA	ZIP: 90007	ALIAS: _____		
DOB: 9/2/1993	RACE: Black	SEX: M	HT: 6'	WT: 180	HAIR: BLK	EYES: BRN	SSN: 097-36-7152	
OLN: _____			ST: _____		TATOO/SCARS/MARKS/LOCATION			
STATUS CODE: 1-Stolen 2-Recovered 3-Stolen/Recovered 4-Lost 5-Burned 6- Counterfeit/Forged								
7-Damaged/Destroyed/Vandalized 8-Evidence 9-Found or Inventory								
DESCRIPTION CODE								
01-Aircraft	08-Consumable Goods	17-Jewelry/Precious Metals	26-Radio/TV/VCR	35-Structure, Other				
02-Alcohol	09-Credit/Debit Cards	18-Livestock	27-Recording Audio Visual	36-Tools/Power/Hand				
03-Automobile	10-Drugs/Narcotics	19-Merchandise	28-Recreational Vehicles	37-Trucks				
04-Bicycle	11-Drug/Narc Equipment	20-Money	29-Structure, Single Occupancy	38-Vehicle Parts/Accessories				
05-Buses	12-Farm Equipment	21-Negotiable Instruments	30-Structure, Other Dwellings	39-Watercraft				
06-Clothes	13-Firearms	22-Non-Negotiable Instruments	31-Structure, Commercial/Business	77-Other				
07-Computer	14-Gambling Equipment	23-Office Equipment	32-Structure, Industrial	88-Pending Inventory				
	15-Heavy Equipment	24-Other Motor Vehicle	33-Structure, Public/Community	09-Special Category				
16-Household Goods		25-Purses/Handbags/Wallets	34-Structure, Storage					
STATUS	Desc. #	QTY	Serial #	Brand/Name	Model/Name	Size, Kind, Etc.	Color	Value
01	17	25				Precious gemstones		\$1.4 million

NCIC ENTRY – YES _____ NO _____		NCIC # _____	DATE OF ENTRY ____/____/____
FET AT SCENE _____	EVIDENCE TURNED IN BY _____		TAG NUMBERS _____
NARRATIVE/ACTION TAKEN			
On Tuesday, July, 21 st at approximately 1135 hours, Officer Young and I were dispatched to 500 S. Hill St to the			
Greenwich & Co. jewelry store in reference to a reported armed robbery. Upon arrival at the store,			
we spoke to the manager of the store, Kelly Simmons, a 28 yr old white female.			
Kelly Simmons stated that a black male entered the store at 1115 and told her to get the shoppers out of the store.			
Kelly Simmons stated that the perpetrator punched her in the face, smashed the glass cases and exited the store with			
approximately \$1.4 million worth of jewelry. Ms. Simmons provided the following description of the perpetrator:			
black male aged 20-25 years, slim to medium build, approx 5' 11", no facial hair, and wearing a blue hat with a white logo for a			
basketball team. Ms. Simmons also said the perpetrator was wearing a black tee shirt with the same logo that was on the hat.			
Kelly Simmons worked with the sketch artist to come up with a sketch of the perpetrator. We ran the sketch on the			
local news channels that night. At 2200 hours, the station received a tip that the sketch of the perpetrator resembled			
Robert Weston, a 23-year old resident of Los Angeles. On Wednesday July 22nd at approximately 1300 hours, Officer			
Young and I visited the residence of Robert Weston and he agreed to return to the station to participate in a photo			
lineup. At the station, Robert Weston was photographed. On July 23rd at 1000 hours, Kelly Simmons returned to the			
station to view the photo array. Kelly Simmons identified Robert Weston's photograph from the array. Ms. Simmons stated			
that she was confident in her identification.			
Based on Kelly Simmons' eyewitness identification, we arrested Robert Weston at his home later in the			
day on July 23rd, at 1500 hours. We also discovered a shirt that was similar to the one worn by the perpetrator			
during the crime and a hat with the same logo described by Kelly Simmons in Weston's house. Robert Weston has denied			
his involvement in the robbery.			
ADDITIONAL FIELD NOTES: YES _____ NO _____		NO. OF ATTACHMENTS _____	
Reporting Officer: _____ Badge # _____		Supervisor: _____ Badge # _____	
Date _____		Date: _____	

[Case File: Page 1 of 3]

WITNESS/VICTIM STATEMENT

Date 7/24/15 Page No. 1

STATEMENT OF: Kelly Simmons

I, Kelly Simmons, was working as the manager of the jewelry store Greenwich & Co. on the morning of July 21st. At approximately 11:15 am, the store had just opened and I was standing just inside the front entrance when a man walked in, came up to me and said, "This is a robbery. If you don't want people to get shot, get everyone out of here". There were several other employees in the store as well as two customers shopping on the far side of the store. I yelled for everyone to exit immediately and screamed that a robbery was taking place. At first, I didn't really feel afraid.

After everyone ran out, the robber punched me in the face, causing me to fall, and then smashed the glass cases holding the most expensive jewelry in the store, worth about 1.4 million dollars. The robber filled a duffel bag with the jewelry and then ran out of the store. I never actually saw the gun and the robber didn't fire any gunshots.

The robber was a young black male, I'd say 20-25 years old, about 5 feet 11 inches with a slim to medium build and no facial hair. He was wearing a blue hat with a white logo on it during the crime. I got a good look at his face for several minutes during the robbery. After the robbery, our security guard who had been protecting our customers called the police. When the police arrived at the store, I told them what happened and they had me work with their sketch artist to develop a sketch of the robber. Yesterday, the police called me down to the station to look at a photo array. I picked the robber's picture from the array. I'm 95% sure that the person in the photo was the one who robbed the store.

[Case File: Page 2 of 3]

EYEWITNESS IDENTIFICATION EVIDENCE

Eyewitness Evidence Form			
Time: <u>2300</u>		Date: <u>7/23/2015</u>	
Victim/Witness Name: <u>Kelly Simmons</u>	Race: <u>White</u>	Age: <u>28</u>	
Suspect Name: <u>Robert Weston</u>	Race: <u>Black</u>	Age: <u>23</u>	Position in Photo Array: <u>#4</u>
<p>Police Instructions Administered to Witness: "The person who committed the robbery may or may not be present in this lineup. Please select the photo of the person who robbed the store if his picture is present; otherwise please select the "Not There" option."</p>			
<p>Description of Perpetrator Provided by Witness: Black male, with a slim to medium build, 20 to 25 years old, approximately 5 feet 11 inches in height, and no facial hair. The perpetrator was wearing a hat wearing a blue hat with a white logo at the time of the crime.</p>			

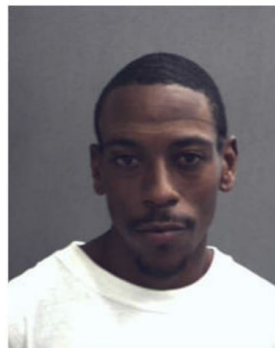
Photo Array Shown to Witness:



1



2



3



4



5



6

White Defendant

Pages 1 and 4-7 only. Pages 2-3 identical to African American defendant.

Instructions:

On the following pages we will provide you with information about a criminal case in which the defendant, a 23 year old white male, Robert Weston, has been arrested for a robbery. He has no prior record.

It is alleged that Robert Weston stole \$1.4 million worth of jewelry from the Los Angeles jewelry store Greenwich & Co. on July 21, 2015.

Weston became a suspect for this crime on the basis of a tip received which indicated that he resembled the sketch that appeared on a news broadcast. The sketch was based on a description made by Kelly Simmons, a 28-year-old white female, who was the manager working at the jewelry store when the robbery occurred. Kelly Simmons selected Robert Weston's picture after viewing a photo array shown to her by police.

You will review the case file, including information about the evidence against the defendant, on the pages to follow. The case file contains the following:

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Eyewitness Identification Evidence

Please review the pages carefully, as the website does not permit you to go back to previously viewed pages.

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OLN:			ST:		TATOO/SCARS/MARKS/LOCATION			
STATUS CODE: 1-Stolen 2-Recovered 3-Stolen/Recovered 4-Lost 5-Burned 6- Counterfeit/Forged								
7-Damaged/Destroyed/Vandalized 8-Evidence 9-Found or Inventory								
DESCRIPTION CODE								
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06-Clothes	13-Firearms	22-Non-Negotiable Instruments	31-Strucure, Commercial/Business	77-Other				
07-Computer	14-Gambling Equipment	23-Office Equipment	32-Structure, Industrial	88-Pending Inventory				
	15-Heavy Equipment	24-Other Motor Vehicle	33-Structure, Public/Community	09-Special Category				
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STATUS	Desc. #	QTY	Serial #	Brand/Name	Model/Name	Size, Kind, Etc.	Color	Value
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NCIC ENTRY – YES _____ NO _____		NCIC # _____	DATE OF ENTRY ____/____/____
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during the crime and a hat with the same logo described by Kelly Simmons in Weston's house. Robert Weston has denied			
his involvement in the robbery.			
ADDITIONAL FIELD NOTES: YES _____ NO _____		NO. OF ATTACHMENTS _____	
Reporting Officer: _____ Badge # _____		Supervisor: _____ Badge # _____	
Date _____		Date: _____	

[Case File: Page 1 of 3]

WITNESS/VICTIM STATEMENT

Date 7/24/15 Page No. 1

STATEMENT OF: Kelly Simmons

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After everyone ran out, the robber punched me in the face, causing me to fall, and then smashed the glass cases holding the most expensive jewelry in the store, worth about 1.4 million dollars. The robber filled a duffel bag with the jewelry and then ran out of the store. I never actually saw the gun and the robber didn't fire any gunshots.

The robber was a young white male, I'd say 20-25 years old, about 5 feet 11 inches with a slim to medium build and no facial hair. He was wearing a blue hat with a white logo on it during the crime. I got a good look at his face for several minutes during the robbery. After the robbery, our security guard who had been protecting our customers called the police. When the police arrived at the store, I told them what happened and they had me work with their sketch artist to develop a sketch of the robber. Yesterday, the police called me down to the station to look at a photo array. I picked the robber's picture from the array. I'm 95% sure that the person in the photo was the one who robbed the store.

[Case File: Page 2 of 3]

EYEWITNESS IDENTIFICATION EVIDENCE

Eyewitness Evidence Form			
Time: <u>2300</u>		Date: <u>7/23/2015</u>	
Victim/Witness Name: <u>Kelly Simmons</u>	Race: <u>White</u>	Age: <u>28</u>	
Suspect Name: <u>Robert Weston</u>	Race: <u>White</u>	Age: <u>23</u>	Position in Photo Array: <u>#4</u>
Police Instructions Administered to Witness: "The person who committed the robbery may or may not be present in this lineup. Please select the photo of the person who robbed the store if his picture is present; otherwise please select the "Not There" option."			
Description of Perpetrator Provided by Witness: White male, with a slim to medium build, 20 to 25 years old, approximately 5 feet 11 inches in height, and no facial hair. The perpetrator was wearing a hat wearing a blue hat with a white logo at the time of the crime.			

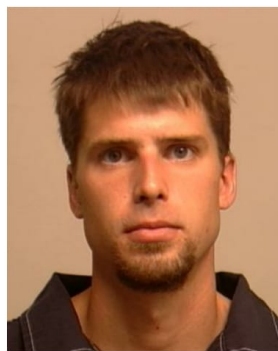
Photo Array Shown to Witness:



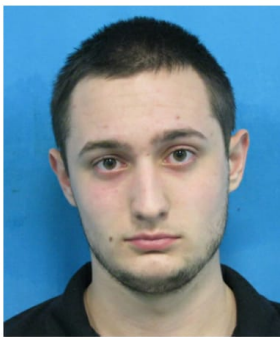
1



2



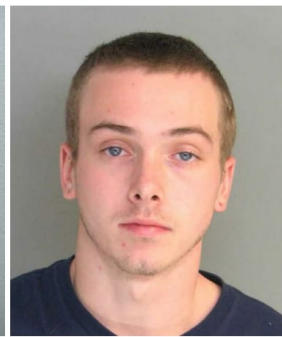
3



4



5



6

Appendix B: Independent Measures

Case Perception Items

Participants rate items on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). A higher score for each item indicates a belief consistent with greater punishment according to the focal concerns perspective. (R) indicates a reverse-coded item.

1. The defendant committed the crime.
2. The defendant is not responsible for the crime. (R)
3. The harm to the alleged victim is significant.
4. This was a serious crime.
5. If the defendant is released pretrial, it is unlikely the defendant will commit a crime. (R)
6. In the long-term, it is likely the defendant will commit a crime.
7. Punishment of the defendant will make it less likely he will commit a crime in the future.
8. Punishment of the defendant will deter others from committing a similar crime.
9. If this case were to go to trial, the defendant would be found guilty.
10. The prosecution has a weak case. (R)
11. A jury would perceive the defendant as guilty.
12. A jury would be troubled by the crime.
13. The witness would not be a reliable witness if the case went to trial. (R)
14. The witness would be helpful in securing a conviction if the case went to trial.

Modern Racism Scale (MRS)

Participants rate items on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). When the scale is scored, a higher score indicates stronger anti-African American prejudice. (R) indicates a reverse-coded item.

1. Over the past few years, the government and news media have shown more respect to blacks than they deserve.
2. It is easy to understand the anger of black people in America. (R)
3. Discrimination against blacks is no longer a problem in the United States.
4. Over the past few years, blacks have gotten more economically than they deserve.
5. Blacks have more influence upon school desegregation plans than they ought to have.
6. Blacks are getting too demanding in their push for equal rights.
7. Blacks should not push themselves where they are not wanted.

Infrahumanization Measure

[Trait order randomized for each participant. Participants provided with a 1 to 7 scale (1 = not common at all; 7 = very common)]

Participant Instructions:

Please indicate how common you think each of the following emotions are for [*African Americans/Whites*].

1. Surprise
2. Attraction
3. Pleasure
4. Anger
5. Disgust
6. Fear
7. Compassion
8. Serenity
9. Happiness
10. Shame
11. Bitterness
12. Contempt

Race Conceptions Scale (RCS)

Participants rate items on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). When the scale is scored, a higher score indicates a more physical conception of race. (R) indicates a reverse-coded item.

1. If a Black American family traveled around the world, people they met would probably think of them as Black, too.
2. The physical features of different racial groups haven't really changed much over the centuries.
3. The same racial categories have pretty much always existed.
4. It's impossible to determine how a person will be racially categorized by examining their DNA. (R)
5. No one can change his or her race—you are who you are.
6. If a White American family traveled around the world, people they met would probably think of them as White, too.
7. It's natural to notice the racial group to which people belong.
8. I believe physical features determine race.
9. Generally speaking, two Black people will always look more similar to each other than a Black person and a White person ever would.
10. How a person is defined racially depends on the social context. (R)
11. Siblings born to the same parents will always be of the same race as each other.
12. Young children probably learn about which people fall into which racial groups automatically, without much help from adults.
13. A person's race is fixed at birth.
14. The political climate can dictate whether someone is categorized as Black or White. (R)
15. In 200 years, society will use basically the same racial categories.
16. There's agreement across cultures about which racial groups people fall into.
17. The average person is highly accurate at identifying people by race.
18. People who are of different races may look quite similar to each other. (R)
19. Racial categories haven't always existed in the world. (R)

- 20. It's easy to tell what race people are by looking at them.
- 21. Racial groups are primarily determined by biology.
- 22. It's possible to be a full member of more than one race. (R)

Appendix C: Participant Suspicion

Defendant Race X Gun Enhancement X Suspicion

<i>Table 31. Defendant Race by Gun Enhancement and Participant Suspicion. (n = 131)</i>					
			No Gun Enhancement	Gun Enhancement	Total
Suspicion: Other¹	African American Defendant	% Within Condition	75.0%	25.0%	100.0%
		Count	30	10	40
	White Defendant	% Within Condition	74.5%	25.5%	100.0%
		Count	35	12	47
Suspicion: Race²	African American Defendant	% Within Condition	83.8%	16.7%	100.0%
		Count	25	5	30
	White Defendant	% Within Condition	78.6%	21.4%	100.0%
		Count	11	3	14
¹ $\chi^2(1) = 0.003$, $p < .96$, Note: 1 cell (25.0%) has expected count less than 5. The minimum expected count is 2.55 ² $\chi^2(1) = 0.15$, $p < .71$, Note: 1 cell (25.0%) has expected count less than 5. The minimum expected count is 2.55					

Suspicion X Gun Enhancement X Defendant Race

<i>Table 32. Participant Suspicion by Gun Enhancement and Defendant Race. (n = 131)</i>					
			No Gun Enhancement	Gun Enhancement	Total
African American Defendant¹	Suspicion: Other	% Within Condition	75.0%	25.0%	100.0%
		Count	30	10	40
	Suspicion: Race	% Within Condition	83.3%	16.7%	100.0%
		Count	25	5	30
White Defendant²	Suspicion: Other	% Within Condition	74.5%	25.5%	100.0%
		Count	35	12	47
	Suspicion: Race	% Within Condition	78.6%	21.4%	100.0%
		Count	11	3	14

¹ $\chi^2 (1) = 0.707, p < .41$, Note: 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.43

² $\chi^2 (1) = 0.10, p < .76$, Note: 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.44

Defendant Race X Battery Charge X Suspicion

Many of the cells have a small count, so it is possible with a larger sample the results would have been statistically significant.

*Table 33. Defendant Race by Battery Charge and Participant Suspicion.
(n = 131)*

			No Add'l Charges	Misd. Battery	Misd. Battery w/SBI	Felony Battery w/SBI	Total
Suspicion: Other¹	African American Defendant	% Within Condition	12.5%	65.0%	10.0%	12.5%	100.0%
		Count	5	26	4	5	40
	White Defendant	% Within Condition	10.6%	63.8%	14.9%	10.6%	100.0%
		Count	5	30	7	5	47
Suspicion: Race²	African American Defendant	% Within Condition	3.3%	86.7%	6.7%	3.3%	100.0%
		Count	1	26	2	1	30
	White Defendant	% Within Condition	7.1%	71.4%	0.0%	21.4%	100.0%
		Count	1	10	0	3	14

¹ $\chi^2 (3) = 0.54, p < .91$, Note: 2 cells (25.0%) have expected count less than 5. The minimum expected count is 4.60

² $\chi^2 (3) = 4.95, p < .18$, Note: 6 cells (75.0%) have expected count less than 5. The minimum expected count is .64

Suspicion X Battery Charge X Defendant Race

Many of the cells have a small count, so it is possible with a larger sample the results would have been statistically significant.

<i>Table 34. Participant Suspicion by Battery Charge and Defendant Race (n = 131)</i>							
			No Add'l Charges	Misd. Battery	Misd. Battery w/SBI	Felony Battery w/SBI	Total
African American Defendant¹	Suspicion: Other	% Within Condition	12.5%	65.0%	10.0%	12.5%	100.0%
		Count	5	26	4	5	40
	Suspicion: Race	% Within Condition	3.3%	86.7%	6.7%	3.3%	100.0%
		Count	1	26	2	1	30
White Defendant²	Suspicion: Other	% Within Condition	10.6%	63.8%	14.9%	10.6%	100.0%
		Count	5	30	7	5	47
	Suspicion: Race	% Within Condition	7.1%	71.4%	0.0%	21.4%	100.0%
		Count	1	10	0	3	14
¹ $\chi^2 (3) = 4.67, p < .20$, Note: 6 cells (75.0%) have expected count less than 5. The minimum expected count is 2.57							
² $\chi^2 (3) = 3.27, p < .36$, Note: 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.38							

Suspicion X Bail X Defendant Race

African American defendant: $M_{\text{about race}} = 87,833$; $SD = 52,320$; $n = 30$. $M_{\text{other}} = 80,768$; $SD =$

$88,595$, $n = 40$. $t(68) = 0.39$, $p < .70$

White defendant: $M_{\text{about race}} = 95,714$; $SD = 44,500$; $n = 14$. $M_{\text{other}} = 89,891$; $SD = 98,424$; $n = 46$.

$t(58) = 0.21$, $p < .84$

Defendant Race X Bail X Suspicion

Suspicion other: $M_{\text{African American}} = 80,768$; $SD = 88,595$; $n = 40$. $M_{\text{White}} = 89,891$; $SD = 98,424$, n

$= 46$. $t(84) = -0.45$, $p < .66$

Suspicion race: $M_{\text{African American}} = 87,833$; $SD = 52,320$; $n = 30$. $M_{\text{White}} = 95,714$; $SD = 44,500$; $n = 14$. $t(42) = -0.49$, $p < .63$

Suspicion X Target Sentence X Defendant Race

African American defendant: $M_{\text{about race}} = 40.1$, $SD = 16.6$, $n = 30$. $M_{\text{other}} = 38.3$, $SD = 20.5$, $n = 40$. $t(68) = 0.39$, $p < .70$

White defendant: $M_{\text{about race}} = 40.5$, $SD = 16.2$, $n = 14$. $M_{\text{other}} = 42.5$, $SD = 24.4$, $n = 46$. $t(58) = -0.29$, $p < .78$

Defendant Race X Target Sentence X Suspicion

Suspicion other: $M_{\text{African American}} = 38.33$, $SD = 20.5$, $n = 40$. $M_{\text{White}} = 42.5$, $SD = 24.5$, $n = 46$. $t(84) = -0.86$, $p < .40$

Suspicion race: $M_{\text{African American}} = 40.1$, $SD = 16.6$, $n = 30$. $M_{\text{White}} = 40.5$, $SD = 16.2$, $n = 14$. $t(42) = -0.08$, $p < .95$

Suspicion X Minimum Acceptable Sentence X Defendant Race

African American defendant: $M_{\text{about race}} = 24.7$, $SD = 12.2$, $n = 30$. $M_{\text{other}} = 25.2$, $SD = 14.0$, $n = 40$. $t(68) = -0.15$, $p < .89$

White defendant: $M_{\text{about race}} = 23.4$, $SD = 9.3$, $n = 14$. $M_{\text{other}} = 26.2$, $SD = 17.4$, $n = 46$. $t(58) = -0.58$, $p < .57$

Defendant Race X Minimum Acceptable Sentence X Suspicion

Suspicion other: $M_{\text{African American}} = 25.2$, $SD = 14.0$, $n = 40$. $M_{\text{White}} = 26.2$, $SD = 17.4$, $n = 46$. $t(84) = -0.29$, $p < .78$

Suspicion race: $M_{\text{African American}} = 24.7$, $SD = 12.2$, $n = 30$. $M_{\text{White}} = 23.4$, $SD = 9.3$, $n = 14$. $t(42) = 0.36$, $p < .73$

Defendant Race X Charge Reduction X Suspicion

*Table 35. Defendant Race by Charge Reduction and Participant Suspicion.
(n = 131)*

			Charge Reduction	No Charge Reduction	Total
Suspicion: Other¹	African American Defendant	% Within Condition	90.0%	10.0%	100.0%
		Count	36	4	40
	White Defendant	% Within Condition	80.9%	19.1%	100.0%
		Count	38	9	47
Suspicion: Race²	African American Defendant	% Within Condition	90.0%	10.0%	100.0%
		Count	27	3	30
	White Defendant	% Within Condition	100.0%	0.0%	100.0%
		Count	14	0	14

¹ $\chi^2 (1) = 1.42, p < .24$, Note: 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.98

² $\chi^2 (1) = 1.50, p < .23$, Note: 2 cells (50.0%) have expected count less than 5. The minimum expected count is .95

Suspicion X Charge Reduction X Defendant Race

*Table 36. Participant Suspicion by Charge Reduction and Defendant Race.
(n = 131)*

			Charge Reduction	No Charge Reduction	Total
African American Defendant¹	Suspicion: Other	% Within Condition	90.0%	10.0%	100.0%
		Count	36	4	40
	Suspicion: Race	% Within Condition	90.0%	10.0%	100.0%
		Count	27	3	30
White Defendant²	Suspicion: Other	% Within Condition	80.9%	19.1%	100.0%
		Count	38	9	47
	Suspicion: Race	% Within Condition	100.0%	0.0%	100.0%
		Count	14	0	14

¹ $\chi^2(1) = 0.00$, $p = 1.00$, Note: 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.00

² $\chi^2(1) = 3.15$, $p < .10$, Note: 1 cell (25.0%) has expected count less than 5. The minimum expected count is 2.07

References

- Abrams, L. S. (2013). Juvenile justice at a crossroads: Science, evidence, and twenty-first century reform. *Social Service Review*, 87(4), 725–752. <https://doi.org/10.1086/674074>
- Albonetti, C. A. (1990). Race and the probability of pleading guilty. *Journal of Quantitative Criminology*, 6(3), 315–334. <https://doi.org/10.1007/BF01065413>
- Albonetti, C. A. (1991). An integration of theories to explain judicial discretion. *Social Problems*, 38(2), 247–266. <https://doi.org/10.2307/800532>
- Alexander, M. (2012). *The new Jim Crow: Mass incarceration in the age of colorblindness* (Reprint edition). The New Press.
- Allport, G. W. (1954). *The Nature of Prejudice*. Oxford, England: Addison-Wesley.
- Axt, J. R., Ebersole, C. R., & Nosek, B. A. (2016). An unintentional, robust, and replicable pro-Black bias in social judgment. *Social Cognition*, 34(1), 1–39. <https://doi.org/10.1521/soco.2016.34.1.1>
- Axt, J. R., Nguyen, H., & Nosek, B. A. (Unpublished manuscript). *The Judgment Bias Task: A flexible method for assessing individual differences in social judgment biases*.
- Bain, P., Park, J., Kwok, C., & Haslam, N. (2009). Attributing human uniqueness and human nature to cultural groups: Distinct forms of subtle dehumanization. *Group Processes & Intergroup Relations*, 12(6), 789–805. <https://doi.org/10.1177/1368430209340415>
- Ball, J. D. (2006). Is It a Prosecutor's World? Determinants of Count Bargaining Decisions. *Journal of Contemporary Criminal Justice*, 22(3), 241–260. <https://doi.org/10.1177/1043986206292369>

- Bastian, B., Denson, T. F., & Haslam, N. (2013). The roles of dehumanization and moral outrage in retributive justice. *PLOS ONE*, 8(4), e61842.
<https://doi.org/10.1371/journal.pone.0061842>
- Bastian, B., & Haslam, N. (2006). Psychological essentialism and stereotype endorsement. *Journal of Experimental Social Psychology*, 42(2), 228–235.
<https://doi.org/10.1016/j.jesp.2005.03.003>
- Baumer, E. P. (2013). Reassessing and redirecting research on race and sentencing. *Justice Quarterly*, 30(2), 231–261. <https://doi.org/10.1080/07418825.2012.682602>
- Beichner, D., & Spohn, C. (2005). Prosecutorial charging decisions in sexual assault cases: Examining the impact of a specialized prosecution unit. *Criminal Justice Policy Review*, 16(4), 461–498.
- Bibas, S. (2004). Plea bargaining outside the shadow of trial. *Harvard Law Review*, 117(8), 2463–2547. <https://doi.org/10.2307/4093404>
- Bibas, S. (2009). Prosecutorial Regulation versus Prosecutorial Accountability. *University of Pennsylvania Law Review*, 157(4), 959–1016.
- Bishop, D. M., Leiber, M., & Johnson, J. (2010). Contexts of decision making in the juvenile justice system: An organizational approach to understanding minority overrepresentation. *Youth Violence and Juvenile Justice*, 8(3), 213–233.
- Blair, I. V. (2002). The malleability of automatic stereotypes and prejudice. *Personality and Social Psychology Review*, 6(3), 242–261.
https://doi.org/10.1207/S15327957PSPR0603_8
- Blume, J. H., & Helm, R. K. (2014). The unexonerated: factually innocent defendants who plead guilty. *Cornell Law Review*, 100, 157.

- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, Mass.: Harvard University Press. Retrieved from https://books.google.com/books?hl=en&lr=&id=8cf0FYm0jW0C&oi=fnd&pg=PR17&dq=The+ecology+of+human+development:+Experiments+by+nature+and+design&ots=1NPS0CQvkJ&sig=kc-zVTYZ--n_vzZ86EKiKwdcSrY
- Caravelis, C., Chiricos, T., & Bales, W. (2011). Static and Dynamic Indicators of Minority Threat in Sentencing Outcomes: A Multi-Level Analysis. *Journal of Quantitative Criminology*, 27(4), 405–425. <https://doi.org/10.1007/s10940-011-9130-1>
- Carson, E. A. (2015). *Prisoners in 2014* (No. NCJ 248955). U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/p14.pdf>
- Čehajić, S., Brown, R., & González, R. (2009). What do i care? Perceived ingroup responsibility and dehumanization as predictors of empathy felt for the victim group. *Group Processes & Intergroup Relations*, 12(6), 715–729. <https://doi.org/10.1177/1368430209347727>
- Chalk, F. R., & Jonassohn, K. (1990). *The history and sociology of genocide: Analyses and case studies*. Yale University Press.
- Chang, R. S. (2011). *Preliminary Report on Race and Washington's Criminal Justice System* (SSRN Scholarly Paper No. ID 1966113). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=1966113>
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, 38(4), 785–810. <https://doi.org/10.1086/669608>

- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159.
<https://doi.org/10.1037/0033-2909.112.1.155>
- Correll, J., Hudson, S. M., Guillermo, S., & Ma, D. S. (2014). The police officer's dilemma: A decade of research on racial bias in the decision to shoot. *Social and Personality Psychology Compass*, 8(5), 201–213. <https://doi.org/10.1111/spc3.12099>
- Correll, J., Park, B., Judd, C. M., & Wittenbrink, B. (2002). The police officer's dilemma: Using ethnicity to disambiguate potentially threatening individuals. *Journal of Personality and Social Psychology*, 83(6), 1314–1329. <https://doi.org/10.1037/0022-3514.83.6.1314>
- Correll, J., Park, B., Judd, C. M., Wittenbrink, B., Sadler, M. S., & Keesee, T. (2007). Across the thin blue line: Police officers and racial bias in the decision to shoot. *Journal of Personality and Social Psychology*, 92(6), 1006–1023. <https://doi.org/10.1037/0022-3514.92.6.1006>
- Correll, J., Urland, G. R., & Ito, T. A. (2006). Event-related potentials and the decision to shoot: The role of threat perception and cognitive control. *Journal of Experimental Social Psychology*, 42(1), 120–128. <https://doi.org/10.1016/j.jesp.2005.02.006>
- Cuddy, A. J. C., Rock, M. S., & Norton, M. I. (2007). Aid in the aftermath of Hurricane Katrina: Inferences of secondary emotions and intergroup helping. *Group Processes & Intergroup Relations*, 10(1), 107–118. <https://doi.org/10.1177/1368430207071344>
- Dar-Nimrod, I., & Heine, S. J. (2011). Genetic essentialism: On the deceptive determinism of DNA. *Psychological Bulletin*, 137(5), 800–818. <https://doi.org/10.1037/a0021860>
- Demoulin, S., Leyens, J.-P., Paladino, M.-P., Rodriguez-Torres, R., Rodriguez-Perez, A., & Dovidio, J. (2004). Dimensions of “uniquely” and “non-uniquely” human emotions. *Cognition and Emotion*, 18(1), 71–96. <https://doi.org/10.1080/02699930244000444>

- Demuth, S. (2003). Racial and ethnic differences in pretrial release decisions and outcomes: A comparison of hispanic, black, and white felony arrestees. *Criminology*, 41(3), 873–908. <https://doi.org/10.1111/j.1745-9125.2003.tb01007.x>
- Demuth, S., & Steffensmeier, D. (2004). The impact of gender and race-ethnicity in the pretrial release process. *Social Problems*, 51(2), 222–242. <https://doi.org/10.1525/sp.2004.51.2.222>
- Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56(1), 5–18. <https://doi.org/10.1037/0022-3514.56.1.5>
- Devine, P. G., Plant, E. A., Amodio, D. M., Harmon-Jones, E., & Vance, S. L. (2002). The regulation of explicit and implicit race bias: The role of motivations to respond without prejudice. *Journal of Personality and Social Psychology*, 82(5), 835–848. <https://doi.org/10.1037/0022-3514.82.5.835>
- Dobbie, W., Goldin, J., & Yang, C. (2016). *The effects of pre-trial detention on conviction, future crime, and employment: Evidence from randomly assigned judges* (Working Paper No. 22511). National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w22511>
- Dovidio, J. F., Kawakami, K., Johnson, C., Johnson, B., & Howard, A. (1997). On the nature of prejudice: Automatic and controlled processes. *Journal of Experimental Social Psychology*, 33(5), 510–540. <https://doi.org/10.1006/jesp.1997.1331>
- Dovidio, J. F., Kawakami, K., Smoak, N., & Gaertner, S. L. (2008). The nature of contemporary racial prejudice: Insight from implicit and explicit measures of attitudes. In R. E. Petty,

- R. H. Fazio, & P. Bri (Eds.), *Attitudes: Insights from the New Implicit Measures* (pp. 165–192). New York, NY, US: Psychology Press.
- Doyle, C. (2017). *Bail: An overview of federal criminal law* (No. R40221). Congressional Research Service. Retrieved from <https://fas.org/sgp/crs/misc/R40221.pdf>
- Eberhardt, J. L., Goff, P. A., Purdie, V. J., & Davies, P. G. (2004). Seeing black: Race, crime, and visual processing. *Journal of Personality and Social Psychology*, 87(6), 876–893. <https://doi.org/10.1037/0022-3514.87.6.876>
- Edkins, V. A. (2011). Defense Attorney Plea Recommendations and Client Race: Does Zealous Representation Apply Equally to All? *Law and Human Behavior*, 35(5), 413–425. <https://doi.org/10.1007/s10979-010-9254-0>
- Eisenberg, T., & Johnson, S. L. (2004). Implicit racial attitudes of death penalty lawyers. *DePaul Law Review*, 53, 1539.
- Ellsworth, P. C., & Sommers, S. R. (2000). Race in the courtroom: Perceptions of guilt and dispositional attributions. *Personality and Social Psychology Bulletin*, 26(11), 1367–1379. <https://doi.org/10.1177/0146167200263005>
- Farrell, J. (2003). Mandatory minimum firearm penalties: A source of sentencing disparity? *Justice Research and Policy*, 5(1), 95–115.
- Farrell, R. A., & Holmes, M. D. (1991). The social and cognitive structure of legal decision-making. *Sociological Quarterly*, 32(4), 529–542. <https://doi.org/10.1111/j.1533-8525.1991.tb00152.x>
- Fisher, G. (2000). Plea bargaining's triumph. *The Yale Law Journal*, 109(5), 857–1086. <https://doi.org/10.2307/797483>

- Ford, T. E., Gambino, F., Lee, H., Mayo, E., & Ferguson, M. A. (2004). The role of accountability in suppressing managers' preinterview bias against African-American sales job applicants. *Journal of Personal Selling & Sales Management*, 24(2), 113–124. <https://doi.org/10.1080/08853134.2004.10749023>
- Forscher, P. S., Lai, C., Axt, J., Ebersole, C. R., Herman, M., Devine, P. G., & Nosek, B. A. (2017). A meta-analysis of change in implicit bias. *PsyArXiv*. <https://doi.org/10.17605/OSF.IO/DV8TU>
- Forst, B. (2010). Prosecution. In J. Q. Wilson & J. Petersilia (Eds.), *Crime and Public Policy*. Oxford University Press.
- Franklin, T. W. (2010). The intersection of defendants' race, gender, and age in prosecutorial decision making. *Journal of Criminal Justice*, 38(2), 185–192. <https://doi.org/10.1016/j.jcrimjus.2009.12.001>
- Freiburger, T. L., Marcum, C. D., & Pierce, M. (2010). The impact of race on the pretrial decision. *American Journal of Criminal Justice*, 35(1–2), 76–86. <https://doi.org/10.1007/s12103-009-9069-z>
- Frohmann, L. (1997). Convictability and Discordant Locales: Reproducing Race, Class, and Gender Ideologies in Prosecutorial Decisionmaking. *Law & Society Review*, 31(3), 531–556. <https://doi.org/10.2307/3054045>
- Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, 94(2), 292–306. <https://doi.org/10.1037/0022-3514.94.2.292>

- Goff, P. A., Jackson, M. C., Di Leone, B. A. L., Culotta, C. M., & DiTomaso, N. A. (2014). The essence of innocence: Consequences of dehumanizing Black children. *Journal of Personality and Social Psychology*, 106(4), 526–545. <https://doi.org/10.1037/a0035663>
- Goldin, C., & Rouse, C. (2000). Orchestrating impartiality: The impact of “blind” auditions on female musicians. *American Economic Review*, 90(4), 715–741. <https://doi.org/10.1257/aer.90.4.715>
- Gonnerman, J. (2014, October 6). Three years on rikers without trial. *The New Yorker*. Retrieved from <http://www.newyorker.com/magazine/2014/10/06/before-the-law>
- Graham, S., & Lowery, B. S. (2004). Priming unconscious racial stereotypes about adolescent offenders. *Law and Human Behavior*, 28(5), 483–504. <https://doi.org/10.1023/B:LAHU.0000046430.65485.1f>
- Greenwald, A. G., Banaji, M. R., & Nosek, B. A. (2015). Statistically small effects of the implicit association test can have societally large effects. *Journal of Personality and Social Psychology*, 108(4), 553–561. <https://doi.org/10.1037/pspa0000016>
- Greenwald, A. G., & Krieger, L. H. (2006). Implicit bias: Scientific foundations. *California Law Review*, 94(4), 945–967. <https://doi.org/10.2307/20439056>
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464–1480. <https://doi.org/10.1037/0022-3514.74.6.1464>
- Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, 85(2), 197–216. <https://doi.org/10.1037/0022-3514.85.2.197>

- Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, 97(1), 17–41. <https://doi.org/10.1037/a0015575>
- Gwinn, J. D., Judd, C. M., & Park, B. (2013). Less power = less human? Effects of power differentials on dehumanization. *Journal of Experimental Social Psychology*, 49(3), 464–470. <https://doi.org/10.1016/j.jesp.2013.01.005>
- Hagan, J. (1973). Extra-legal attributes and criminal sentencing: An assessment of a sociological viewpoint. *Law & Society Review*, 8, 357–384.
- Hartley, R. D., Maddan, S., & Spohn, C. C. (2007). Prosecutorial discretion: An examination of substantial assistance departures in federal crack-cocaine and powder-cocaine cases. *Justice Quarterly*, 24(3), 382–407. <https://doi.org/10.1080/07418820701485379>
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, 10(3), 252–264. https://doi.org/10.1207/s15327957pspr1003_4
- Haslam, N. (2011). Genetic essentialism, neuroessentialism, and stigma: Commentary on Dar-Nimrod and Heine (2011). *Psychological Bulletin*, 137(5), 819–824. <https://doi.org/10.1037/a0022386>
- Haslam, N., & Bain, P. (2007). Humanizing the self: Moderators of the attribution of lesser humanness to others. *Personality and Social Psychology Bulletin*, 33(1), 57–68. <https://doi.org/10.1177/0146167206293191>
- Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual Review of Psychology*, 65(1), 399–423. <https://doi.org/10.1146/annurev-psych-010213-115045>
- Helman, E., Flake, J. K., & Calanchini, J. (2017). Disproportionate Use of Lethal Force in Policing Is Associated With Regional Racial Biases of Residents. *Social Psychological*

and Personality Science, 1948550617711229.

<https://doi.org/10.1177/1948550617711229>

Henning, K., & Feder, L. (2005). Criminal prosecution of domestic violence offenses an investigation of factors predictive of court outcomes. *Criminal Justice and Behavior*, 32(6), 612–642.

Hofer, P. J. (2011). Has booker restored balance? A look at data on plea bargaining and sentencing. *Federal Sentencing Reporter*, 23(5), 326–332.

<https://doi.org/10.1525/fsr.2011.23.5.326>

Holsinger, A. (2016). Analyzing bond supervision survey data: The effects of pretrial detention on self-reported outcomes. *Boston: Crime and Justice Institute*. Retrieved from http://www.crj.org/page/-/publications/bond_supervision_report_R3.pdf

Iguchi, M. Y., Bell, J., Ramchand, R. N., & Fain, T. (2005). How criminal system racial disparities may translate into health disparities. *Journal of Health Care for the Poor and Underserved*, 16(4), 48–56. <https://doi.org/10.1353/hpu.2005.0114>

Jayaratne, T. E., Ybarra, O., Sheldon, J. P., Brown, T. N., Feldbaum, M., Pfeffer, C. A., & Petty, E. M. (2006). White Americans' genetic lay theories of race differences and sexual orientation: Their relationship with prejudice toward Blacks, and gay men and lesbians. *Group Processes & Intergroup Relations*, 9(1), 77–94.

<https://doi.org/10.1177/1368430206059863>

Johnson, B. D. (2003). Racial and ethnic disparities in sentencing departures across modes of conviction. *Criminology*, 41(2), 449–490. <https://doi.org/10.1111/j.1745-9125.2003.tb00994.x>

- Johnson, M. T., & Gilbert, S. A. (1997). The us sentencing guidelines: Results of the federal judicial center's 1996 survey. *Washington, DC: Federal Judicial Center*. Retrieved from <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=172198>
- Johnson, S. L. (1985). Black innocence and the white jury. *Michigan Law Review*, 83(7), 1611–1708. <https://doi.org/10.2307/1288969>
- Kahn, K. B., Goff, P. A., Lee, J. K., & Motamed, D. (2016). Protecting whiteness white phenotypic racial stereotypicality reduces police use of force. *Social Psychological and Personality Science*, 7(5), 403–411. <https://doi.org/10.1177/1948550616633505>
- Kang, J., Bennett, M. W., Carbado, D. W., Casey, P., Dasgupta, N., Faigman, D. L., ... Mnookin, J. (2012). *Implicit bias in the courtroom* (SSRN Scholarly Paper No. ID 2026540). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=2026540>
- Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. *Journal of Personality and Social Psychology*, 88(4), 686–702.
- Kendi, I. X. (2016). *Stamped from the beginning: The definitive history of racist ideas in America*. Hachette UK.
- Khogali, M., & Penrod, S. (unpublished manuscript). *Bias in plea bargaining: Discerning differences in attorney plea recommendations*.
- Kramer, J. H., & Ulmer, J. T. (2009). *Sentencing guidelines: Lessons from Pennsylvania*. Lynne Rienner Publishers Boulder. Retrieved from <https://www.rienner.com/uploads/4a0484cf6962e.pdf?pagewanted=all>

- Kteily, N., Bruneau, E., Waytz, A., & Cotterill, S. (2015). The ascent of man: Theoretical and empirical evidence for blatant dehumanization. *Journal of Personality and Social Psychology*, 109(5), 901. <https://doi.org/10.1037/pspp0000048>
- Kutateladze, B., Lynn, V., & Liang, E. (2012). *Do race and ethnicity matter in prosecution? A review of empirical studies*. New York, NY: Vera Institute of Justice. Retrieved from <https://www.vera.org/publications/do-race-and-ethnicity-matter-in-prosecution-a-review-of-empirical-studies>
- Kutateladze, Besiki L., Andiloro, N. R., Johnson, B. D., & Spohn, C. C. (2014). Cumulative disadvantage: Examining racial and ethnic disparity in prosecution and sentencing. *Criminology*, 52(3), 514–551. <https://doi.org/10.1111/1745-9125.12047>
- Kutateladze, Besiki Luka, Andiloro, N. R., & Johnson, B. D. (2016). Opening pandora's box: How does defendant race influence plea bargaining? *Justice Quarterly*, 33(3), 398–426. <https://doi.org/10.1080/07418825.2014.915340>
- Leidner, B., Castano, E., & Ginges, J. (2013). Dehumanization, Retributive and Restorative Justice, and Aggressive Versus Diplomatic Intergroup Conflict Resolution Strategies. *Personality and Social Psychology Bulletin*, 39(2), 181–192. <https://doi.org/10.1177/0146167212472208>
- Levinson, J. D. (2007). Forgotten racial equality: Implicit bias, decisionmaking, and misremembering. *Duke Law Journal*, 57(2), 345–424.
- Levinson, J. D., Cai, H., & Young, D. (2010). Guilty by Implicit Racial Bias: The Guilty/Not Guilty Implicit Association Test. *Ohio State Journal of Criminal Law*, 8, 187–208.

- Levinson, J. D., Smith, R. J., & Young, D. M. (2014). Devaluing death: An empirical study of implicit racial bias on jury-eligible citizens in six death penalty states. *New York University Law Review*, 89, 513.
- Levinson, J. D., & Young, D. (2010). *Different shades of bias: Skin tone, implicit racial bias, and judgments of ambiguous evidence* (SSRN Scholarly Paper No. ID 1601615). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=1601615>
- Levitt, S. D., & Dubner, S. J. (2005). *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*. William Morrow.
- Leyens, J.-P., Cortes, B., Demoulin, S., Dovidio, J. F., Fiske, S. T., Gaunt, R., ... Vaes, J. (2003). Emotional prejudice, essentialism, and nationalism: The 2002 Tajfel lecture. *European Journal of Social Psychology*, 33(6), 703–717. <https://doi.org/10.1002/ejsp.170>
- Leyens, J.-P., Demoulin, S., Vaes, J., Gaunt, R., & Paladino, M. P. (2007). Infra-humanization: The wall of group differences. *Social Issues and Policy Review*, 1(1), 139–172. <https://doi.org/10.1111/j.1751-2409.2007.00006.x>
- Leyens, J.-P., Paladino, P. M., Rodriguez-Torres, R., Vaes, J., Demoulin, S., Rodriguez-Perez, A., & Gaunt, R. (2000). The emotional side of prejudice: The attribution of secondary emotions to ingroups and outgroups. *Personality and Social Psychology Review*, 4(2), 186–197. https://doi.org/10.1207/S15327957PSPR0402_06
- Leyens, J.-P., Rodriguez-Perez, A., Rodriguez-Torres, R., Gaunt, R., Paladino, M.-P., Vaes, J., & Demoulin, S. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology*, 31(4), 395–411.

- March, J. G., & Simon, H. A. (1958). *Organizations*. Oxford, England: Wiley.
- Martin, C. (2014). Influence of race and ethnicity on charge severity in Chicago homicide cases: An investigation of prosecutorial discretion. *Race and Justice*, 2153368714523139.
<https://doi.org/10.1177/2153368714523139>
- McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91–125). San Diego, CA, US: Academic Press.
- Medin, D. L. (1989). Concepts and conceptual structure. *American Psychologist*, 44(12), 1469–1481.
- Medin, D. L., & Ortony, A. (1989). Psychological essentialism. In S. Vosniadou & A. Ortony (Eds.), *Similarity and analogical reasoning* (pp. 179–195). Cambridge, England: Cambridge University Press.
- Miethe, T. D. (1987). Charging and plea bargaining practices under determinate sentencing: An investigation of the hydraulic displacement of discretion criminology. *Journal of Criminal Law and Criminology*, 78, 155–176.
- Minton, T. D., & Zeng, Z. (2015). *Jail inmates at midyear 2014*. Retrieved from
<http://www.bjs.gov/content/pub/pdf/jim14.pdf>
- Mustard, D. B. (2001). Racial, Ethnic, and Gender Disparities in Sentencing: Evidence from the U.S. Federal Courts. *The Journal of Law & Economics*, 44(1), 285–314.
<https://doi.org/10.1086/320276>
- National Association of Social Workers Delegate Assembly. (2008). Code of ethics of the national association of social workers. Retrieved from
<http://www.naswdc.org/pubs/code/code.asp>

- Nosek, B. A. (2005). Moderators of the relationship between implicit and explicit evaluation. *Journal of Experimental Psychology. General*, 134(4), 565–584.
<https://doi.org/10.1037/0096-3445.134.4.565>
- Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2005). Understanding and using the Implicit Association Test: II. Method variables and construct validity. *Personality and Social Psychology Bulletin*, 31(2), 166–180. <https://doi.org/10.1177/0146167204271418>
- Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2007). The Implicit Association Test at age 7: A methodological and conceptual review. In J. A. Bargh, *Social Psychology and the Unconscious: The Automaticity of Higher Mental Processes* (pp. 265–292). New York, NY: Psychology Press. Retrieved from <http://projectimplicit.net/nosek/papers/NGB2006.pdf>
- Nosek, B. A., & Smyth, F. L. (2007). A multitrait-multimethod validation of the Implicit Association Test: Implicit and explicit attitudes are related but distinct constructs. *Experimental Psychology*, 54(1), 14–29. <https://doi.org/10.1027/1618-3169.54.1.14>
- Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, N. M., Ranganath, K. A., ... Banaji, M. R. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology*, 18(1), 36–88.
<https://doi.org/10.1080/10463280701489053>
- O’Connell, A. A. (2006). *Logistic regression models for ordinal response variables*. Sage.
Retrieved from https://books.google.com/books?hl=en&lr=&id=0TDPPB2uiBAC&oi=fnd&pg=PR7&dq=Logistic+Regression+Models+for+Ordinal+Response+Variables&ots=uURDvZq5ai&sig=QRLfCggaD5LgNOVgMfs2Qq58P_g

- Opatow, S. (1990). Moral exclusion and injustice: An introduction. *Journal of Social Issues*, 46(1), 1–20. <https://doi.org/10.1111/j.1540-4560.1990.tb00268.x>
- Paladino, M.-P., Leyens, J.-P., Rodriguez, R., Rodriguez, A., Gaunt, R., & Demoulin, S. (2002). Differential association of uniquely and non uniquely human emotions with the ingroup and the outgroup. *Group Processes & Intergroup Relations*, 5(2), 105–117. <https://doi.org/10.1177/1368430202005002539>
- Payne, B. K. (2005). Conceptualizing control in social cognition: how executive functioning modulates the expression of automatic stereotyping. *Journal of Personality and Social Psychology*, 89(4), 488. <https://doi.org/10.1037/0022-3514.89.4.488>
- Payne, B. K. (2006). Weapon bias: Split-second decisions and unintended stereotyping. *Current Directions in Psychological Science*, 15(6), 287–291. <https://doi.org/10.1111/j.1467-8721.2006.00454.x>
- Payne, B. K., Vuletich, H. A., & Lundberg, K. B. (2017). The Bias of Crowds: How Implicit Bias Bridges Personal and Systemic Prejudice. *Psychological Inquiry*, 28(4), 233–248. <https://doi.org/10.1080/1047840X.2017.1335568>
- Pearson, A. R., Dovidio, J. F., & Gaertner, S. L. (2009). The Nature of Contemporary Prejudice: Insights from Aversive Racism. *Social and Personality Psychology Compass*, 3(3), 314–338. <https://doi.org/10.1111/j.1751-9004.2009.00183.x>
- Piehl, A. M., & Bushway, S. D. (2007). Measuring and explaining charge bargaining. *Journal of Quantitative Criminology*, 23(2), 105–125. <https://doi.org/10.1007/s10940-006-9023-x>
- Pinto, N. (2015, August 13). The bail trap. *The New York Times*. Retrieved from <http://www.nytimes.com/2015/08/16/magazine/the-bail-trap.html>

- Rachlinski, J. J., Johnson, S. L., Wistrich, A. J., & Guthrie, C. (2009). *Does unconscious racial bias affect trial judges?* (SSRN Scholarly Paper No. ID 1374497). Rochester, NY: Social Science Research Network. Retrieved from <http://papers.ssrn.com/abstract=1374497>
- Rakoff, J. S. (2014, November 20). Why innocent people plead guilty. Retrieved April 16, 2016, from <http://www.nybooks.com/articles/2014/11/20/why-innocent-people-plead-guilty/>
- Reaves, B. A. (2013). Felony defendants in large urban counties, 2009—statistical tables. *Washington, DC: Bureau of Justice Statistics, Department of Justice*. Retrieved from <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=265854>
- Redlich, A. D. (2016). The validity of pleading guilty. In B. H. Bornstein & M. K. Miller (Eds.), *Advances in Psychology and Law* (pp. 1–26). Springer International Publishing. https://doi.org/10.1007/978-3-319-43083-6_1
- Rehavi, M. M., & Starr, S. B. (2014). Racial Disparity in Federal Criminal Sentences. *Journal of Political Economy*, 122(6), 1320–1354. <https://doi.org/10.1086/677255>
- Reitler, A. K., Sullivan, C. J., & Frank, J. (2013). The Effects of Legal and Extralegal Factors on Detention Decisions in US District Courts. *Justice Quarterly*, 30(2), 340–368. <https://doi.org/10.1080/07418825.2012.668925>
- Roberts, D. (2011). *Fatal invention: How Science, Politics, and Big Business Re-Create Race in the Twenty-First Century*. New York: The New Press.
- Rosenmerkel, S. P., Durose, M. R., & Farole, D. (2009). *Felony sentences in state courts, 2006 - Statistical tables*. Washington, D.C.: Bureau of Justice Statistics (BJS) US Dept of Justice Office of Justice Programs United States of America. Retrieved from <https://www.ncjrs.gov/App/AbstractDB/AbstractDBDetails.aspx?id=248845>

- Rudman, L. A. (2004). Social justice in our minds, homes, and society: The nature, causes, and consequences of implicit bias. *Social Justice Research, 17*(2), 129–142.
<https://doi.org/10.1023/B:SORE.0000027406.32604.f6>
- Schlesinger, T. (2013). Racial disparities in pretrial diversion: An analysis of outcomes among men charged with felonies and processed in state courts. *Race and Justice, 21*53368713483320. <https://doi.org/10.1177/2153368713483320>
- Schwartz, M., & Winerip, M. (2015, June 8). Kalief Browder, held at Rikers Island for 3 years without trial, commits suicide. *The New York Times*. Retrieved from <http://www.nytimes.com/2015/06/09/nyregion/kalief-browder-held-at-rikers-island-for-3-years-without-trial-commits-suicide.html>
- Shelton, J. N., Richeson, J. A., Salvatore, J., & Trawalter, S. (2005). Ironic effects of racial bias during interracial interactions. *Psychological Science, 16*(5), 397–402.
<https://doi.org/10.1111/j.0956-7976.2005.01547.x>
- Sherman, J. W., Gawronski, B., Gonsalkorale, K., Hugenberg, K., Allen, T. J., & Groom, C. J. (2008). The self-regulation of automatic associations and behavioral impulses. *Psychological Review, 115*(2), 314. <https://doi.org/10.1037/0033-295X.115.2.314>
- Shermer, L. O., & Johnson, B. D. (2010). Criminal prosecutions: Examining prosecutorial discretion and charge reductions in U.S. federal district courts. *Justice Quarterly, 27*(3), 394–430. <https://doi.org/10.1080/07418820902856972>
- Skorinko, J. L., & Spellman, B. A. (2013). Stereotypic Crimes: How Group-Crime Associations Affect Memory and (Sometimes) Verdicts and Sentencing. *Victims & Offenders, 8*(3), 278–307. <https://doi.org/10.1080/15564886.2012.755140>

- Smith, R. J., & Levinson, J. D. (2012). The impact of implicit racial bias on the exercise of prosecutorial discretion. *Seattle University Law Review*, 35, 795.
- Sommers, S. R., & Ellsworth, P. C. (2001). White juror bias: An investigation of prejudice against Black defendants in the American courtroom. *Psychology, Public Policy, and Law*, 7(1), 201–229. <https://doi.org/10.1037/1076-8971.7.1.201>
- Sommers, S. R., & Ellsworth, P. C. (2003). How Much Do We Really Know about Race and Juries - A Review of Social Science Theory and Research. *Chicago-Kent Law Review*, 78, 997.
- Spohn, C. (2000). Thirty years of sentencing reform: The quest for a racially neutral sentencing process. *Criminal Justice*, 3, 427–501.
- Spohn, C. (2009). Race, sex, and pretrial detention in federal court: Indirect effects and cumulative disadvantage. *University of Kansas Law Review*, 57, 879.
- Spohn, C. (2015). Evolution of sentencing research. *Criminology & Public Policy*, 14(2), 225–232. <https://doi.org/10.1111/1745-9133.12125>
- Spohn, C., Beichner, D., & Davis-Frenzel, E. (2001). Prosecutorial justifications for sexual assault case rejection: Guarding the “gateway to justice.” *Social Problems*, 48(2), 206–235. <https://doi.org/10.1525/sp.2001.48.2.206>
- Spohn, C., & Fornango, R. (2009). U.s. attorneys and substantial assistance departures: Testing for interprosecutor disparity. *Criminology*, 47(3), 813–846. <https://doi.org/10.1111/j.1745-9125.2009.00163.x>
- Spohn, C., & Holleran, D. (2001). Prosecuting sexual assault: A comparison of charging decisions in sexual assault cases involving strangers, acquaintances, and intimate partners. *Justice Quarterly*, 18(3), 651–688. <https://doi.org/10.1080/07418820100095051>

- Staats, C. (2014). State of the science: Implicit bias review 2014. *Kirwan Institute for the Study of Race and Ethnicity*, 1–104.
- Steffensmeier, D. J. (1980). Assessing the impact of the women's movement on sex-based differences in the handling of adult criminal defendants. *Crime & Delinquency*, 26(3), 344–357.
- Steffensmeier, D., Kramer, J., & Streifel, C. (1993). Gender and imprisonment decisions. *Criminology*, 31(3), 411–446. <https://doi.org/10.1111/j.1745-9125.1993.tb01136.x>
- Steffensmeier, D., Ulmer, J., & Kramer, J. (1998). The interaction of race, gender, and age in criminal sentencing: The punishment cost of being young, black, and male. *Criminology*, 36(4), 763–798. <https://doi.org/10.1111/j.1745-9125.1998.tb01265.x>
- Stemen, D. (2016). Prosecuting Emerging Adults: The Effects of Age on Screening, Charging, and Sentencing Decisions. Presented at the The Annual Meeting of the American Society of Criminology, New Orleans, LA.
- Stevenson, M. (2016). *Distortion of justice: How the inability to pay bail affects case outcomes* (SSRN Scholarly Paper No. ID 2777615). Rochester, NY: Social Science Research Network. Retrieved from <https://papers.ssrn.com/abstract=2777615>
- Sutton, J. R. (2013). Structural bias in the sentencing of felony defendants. *Social Science Research*, 42(5), 1207–1221. <https://doi.org/10.1016/j.ssresearch.2013.04.003>
- Tam, T., Hewstone, M., Cairns, E., Tausch, N., Maio, G., & Kenworthy, J. (2007). The impact of intergroup emotions on forgiveness in Northern Ireland. *Group Processes & Intergroup Relations*, 10(1), 119–136. <https://doi.org/10.1177/1368430207071345>
- The University of Michigan Law School. (n.d.). *The national registry of exonerations*. Retrieved from <http://www.law.umich.edu/special/exoneration/Pages/about.aspx>

Tonry, M. (1996). *Sentencing Matters*. Oxford University Press.

UCLA School of Law Facts. (2017). Retrieved February 12, 2018, from

<https://law.ucla.edu/about-ucla-law/school-facts/>

Ulmer, J. T. (1997). *Social worlds of sentencing: Court communities under sentencing guidelines*. SUNY Press. Retrieved from

[https://books.google.com/books?hl=en&lr=&id=P0h-](https://books.google.com/books?hl=en&lr=&id=P0h-AFevTykC&oi=fnd&pg=PR9&dq=+Social+Worlds+of+Sentencing:+Court+Communities+Under+Sentencing+Guide-+lines.&ots=pgq5Fka4eY&sig=wDfLM33Rv_6XxYpNI2-RA7RsBC4)

[AFevTykC&oi=fnd&pg=PR9&dq=+Social+Worlds+of+Sentencing:+Court+Communities+Under+Sentencing+Guide-+lines.&ots=pgq5Fka4eY&sig=wDfLM33Rv_6XxYpNI2-RA7RsBC4](https://books.google.com/books?hl=en&lr=&id=P0h-AFevTykC&oi=fnd&pg=PR9&dq=+Social+Worlds+of+Sentencing:+Court+Communities+Under+Sentencing+Guide-+lines.&ots=pgq5Fka4eY&sig=wDfLM33Rv_6XxYpNI2-RA7RsBC4)

Ulmer, J. T. (2012). Recent developments and new directions in sentencing research. *Justice Quarterly*, 29(1), 1–40. <https://doi.org/10.1080/07418825.2011.624115>

Ulmer, J. T., & Kramer, J. H. (1996). Court communities under sentencing guidelines: Dilemmas of formal rationality and sentencing disparity. *Criminology*, 34(3), 383–408. <https://doi.org/10.1111/j.1745-9125.1996.tb01212.x>

Ulmer, J. T., Kurlychek, M. C., & Kramer, J. H. (2007). Prosecutorial discretion and the imposition of mandatory minimum sentences. *Journal of Research in Crime and Delinquency*, 44(4), 427–458.

United States Census Bureau. (2016). Population estimates, July 1, 2015, (V2015). Retrieved December 12, 2016, from [//www.census.gov/quickfacts/](http://www.census.gov/quickfacts/)

U.S. Const. amend. VI.

U.S. Department of Justice. (2016). Crime in the United States 2015. Retrieved December 12, 2016, from <https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-43>

- Van Cleve, N. G. (2016). *Crook county: Racism and injustice in america's largest criminal court* (1 edition). Stanford Law Books.
- Viki, G. T., Fullerton, I., Raggett, H., Tait, F., & Wiltshire, S. (2012). The role of dehumanization in attitudes toward the social exclusion and rehabilitation of sex offenders. *Journal of Applied Social Psychology*, 42(10), 2349–2367.
<https://doi.org/10.1111/j.1559-1816.2012.00944.x>
- Williams, M. J., & Eberhardt, J. L. (2008). Biological conceptions of race and the motivation to cross racial boundaries. *Journal of Personality and Social Psychology*, 94(6), 1033–1047.
<https://doi.org/10.1037/0022-3514.94.6.1033>
- Williams, M. R. (2003). The effect of pretrial detention on imprisonment decisions. *Criminal Justice Review*, 28(2), 299–316. <https://doi.org/10.1177/073401680302800206>
- Wilmot, K. A., & Spohn, C. (2004). Prosecutorial discretion and real-offense sentencing: An analysis of relevant conduct under the federal sentencing guidelines. *Criminal Justice Policy Review*, 15(3), 324–343. <https://doi.org/10.1177/0887403403259434>
- Wohl, M. J. A., Hornsey, M. J., & Bennett, S. H. (2012). Why group apologies succeed and fail: Intergroup forgiveness and the role of primary and secondary emotions. *Journal of Personality and Social Psychology*, 102(2), 306–322.
- Women Donors Network. (2015). Justice for All? A Look at the Demographics of Prosecutors in America. Retrieved March 17, 2018, from <http://wholeads.us/justice>
- Wooldredge, J. (2012). Distinguishing race effects on pre-trial release and sentencing decisions. *Justice Quarterly*, 29(1), 41–75. <https://doi.org/10.1080/07418825.2011.559480>

- Wooldredge, J., Frank, J., Goulette, N., & Travis, L. (2015). Is the impact of cumulative disadvantage on sentencing greater for black defendants? *Criminology & Public Policy*, 14(2), 187–223. <https://doi.org/10.1111/1745-9133.12124>
- Wright, R. F. (2005). Trial distortion and the end of innocence in federal criminal justice. *University of Pennsylvania Law Review*, 154(1), 79–156.
<https://doi.org/10.2307/25047583>
- Yzerbyt, V., Rocher, S., & Schadron, G. (1997). Stereotypes as explanations: A subjective essentialistic view of group perception. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 20–50). Oxford, England: Blackwell Publishing.
- Zatz, M. S. (1987). The changing forms of racial/ethnic biases in sentencing. *Journal of Research in Crime and Delinquency*, 24(1), 69–92.
<https://doi.org/10.1177/0022427887024001005>