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Can an expert opinion mitigate racially biased diversion decisions? An empirical examination in the context of reoffense risk assessment

Riley Davis

CAN AN EXPERT OPINION MITIGATE RACIALLY BIASED DIVERSION DECISIONS? AN EMPIRICAL EXAMINATION IN THE CONTEXT OF REOFFENSE RISK ASSESSMENT

by

Riley Michelle Davis

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Approved by:

Eric R. Dahlen, Ph.D., Committee Chair
Ashley B. Batastini, Ph.D.
Donald Sacco, Ph.D.
Craig Warlick, Ph.D.

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ABSTRACT

This study aimed to better understand the circumstances in which the racial identity of a justice impacted person can extraneously influence post-conviction placement decisions based on specialized re-offense prediction tools, specifically decisions at the crux of community supervision and jail time. Participants (N = 448) were exposed to one of nine conditions (3 descriptors of racial identities × 3 levels of risk information) in which they were asked to rate their agreement with risk findings, rank the categorical risk of a hypothetical justice-involved person, and make management decisions (i.e., incarceration or community supervision; mandated treatment). It was hypothesized that participants exposed to an examinee of color and who were not provided any information about that person's level of risk would rank the examinee as the highest risk, more often choose incarceration over community supervision, and mandate treatment more than other participants. A main effect of race/ethnicity was also expected. For those who received risk information, it was predicted that participants would show more agreement with the risk findings if they were told the assessment was completed by a forensic examiner. Further, when controlling for explicit racial bias, it was hypothesized that the presentation of risk data and whether or not it was proffered by a trained examiner would differentially impact participants' legal decisions. Results of 3 × 3 analysis of covariance and binomial logistic regressions showed no effect of risk information or racial identity on risk agreement ratings or placement decisions. The racial/ethnic identity of the examinee predicted treatment decisions, such that participants more often chose mandated treatment for the Black examinee than the White or Latino examinee. Finally, results of a multinomial logistic regression showed that participants

exposed to risk information were more likely to rate the examinee, regardless of race/ethnicity, as lower risk than those not given risk information. However, participants who reported more racial bias rated the examinee as more at-risk and were more likely to suggest the individual be incarcerated. This study has implications for practice and policy. Limitations and directions for future research are discussed.

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DEDICATION

To my parents, James and Patricia Davis, thank you for your never-ending love and support. I am so thankful for parents that have unconditionally loved and supported me through every step of life. Thank you for continuing to wipe my tears from miles away, hold my hand during hard times, and celebrating my wins. To Katie, thank you for your unwavering love and kindness. To Thomas, thank you for keeping me laughing and reminding me of the joy in every day. To Luna Mae, you are the light of my life and the biggest joy in my life. To Michelle and Ryan, thank you for your constant emotional support. To Ashley and Abby, I could have never asked for better friends. Thank you for riding the wave of life with me and never letting go.

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CHAPTER I – INTRODUCTION

"We the People of the United States, in Order to form a more perfect Union, establish Justice, ensure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America." (U.S. Const., pmbl.)

When the Preamble of the United States Constitution was added in 1787, "we the people" did not include "all" people; the phrase referred only to White men. Not until almost 100 years later with the ratification of the 14th amendment, did the U.S. Constitution afford men of color the same legal right as White men. While this Amendment equally protected all men, including Blacks, Latinos, and Whites, Jim Crow laws were implemented in the South just two years later to enforce racial segregation and prevent Blacks from voting (Library of Congress, 2020). These laws further entrenched the discrimination faced by Blacks in the U.S. and were solidified with the U.S. Supreme Court decision in *Plessy v. Ferguson* in 1896, which gave rise to the well-known "separate, but equal" standard. While Jim Crow laws are associated with a period of rampant discrimination against Black Americans, Latino Americans were facing similar events during that time. Following the Mexican American war in 1848, the Latino population in the U.S. soared, resulting in immigration raids, illegal deportation, mob killings, employment discrimination and segregation (Teaching Tolerance, 2020; Limon & Hunter, 2005). The U.S. removed approximately 2 million people under the guise of repatriation during this time (Limon & Hunter, 2005).

By the 1940's, segregation laws began to unravel. Black and Latino Americans witnessed a barrage of events impacting their civil liberties. For both Blacks and Latinos, it was *Brown v. Board of Education* in 1954 ending segregation in schools, the Voting Rights Act of 1965, and the Fair Housing Act of 1968, that showed momentum for equality. Blacks also gained progress in President Roosevelt's executive order in 1941 disbanding government segregation and the Civil Rights Acts of 1957 and 1964, while Latinos saw the formation of the Fair Employment Practice Committee in 1941, *Mendez v. Westminster School District* in 1946, *Hernandez v. Texas* in 1954, and the Chicano Civil Rights movement in the 1960's. Despite legal changes favoring equality, the mid to late 20th century continued to see Blacks and Latinos being beaten, arrested, deported, and killed in their fight to achieve equality (Library of Congress, 2020; Teaching Tolerance, 2020). From the Rodney King riots and Los Angeles Rebellion in 1992, hate crimes against minorities following the September 11th, 2001, terrorist attacks, to the criminalization of undocumented immigrants, to the Black Lives Matter movement of today fueled by instances of police brutality, it is clear that discrimination against racial and ethnic minorities is still omnipresent despite the progress that has been made. Throughout American history there is little doubt that other racial and ethnic minorities have faced discrimination; as such, it should be noted that the above examples are not an exhaustive depiction of racial and ethnic discrimination in the United States.

Racial Disparities and Bias in the Justice System: From Front-End to Back-End Legal Processes

While many of the policies and legal actions during the Civil Rights movement were intended to reduce racial discrimination, other policies inadvertently and

disproportionally discriminated against minorities in the justice system. Since the 1970's the U.S. prison population has grown by 700% (ACLU, 2018), with Blacks representing 38% of state prisoners, Whites representing 35%, and Hispanics representing 21% (Nellis, 2016). At first glance, this breakdown may not seem noteworthy; however, the disparity becomes clear when considering the demographic make-up of the U.S. Based on recent U.S. Census data (2019), Blacks and Hispanic or Latinos make up approximately 13% and 18.5% of the U.S. population, respectively; Whites, who are not Hispanic/Latinx, account for 60%. This increase in the prison population, commonly referred to as an era of mass incarceration, has undoubtedly impacted racial and ethnic minorities more negatively. While some of the disparity is likely related to the unintended consequences of criminal justice policies and legislation (e.g., the War on Drugs) enacted throughout the late 20th Century (Controlled Substances Act, 1970; Anti-Drug Abuse Act, 1986), there is evidence to suggest that disparities result more directly from the color of a person's skin.

The disproportionality of minorities involved in the legal system could be attributed to myriad factors occurring at any point during the legal process. From arrest to incarceration and re-entry, there are a number of decisions that could be impacted by a justice-involved person's race. As such, understanding when, how, and why decisions of triers-of-fact are influenced by race is critical in ensuring a fair and just legal process. By examining the empirical research and current legal events surrounding each step of the legal process, we may better understand factors influencing an individual's trajectory through the system. For some of these time points in the justice system, there is ample empirical research studying the influence of defendant/offender race (e.g., verdict

decisions, sentencing); for other time points and purposes, the research is more limited (e.g., parole and re-entry decisions).

Initial Arrest and Police Encounters

An individual's first formal contact with the legal system typically occurs at the time of arrest. Factors such as proactive policing policies, geographic location, and individual traits (e.g., antisocial cognitions; see Bonta and Andrews, 2017) may contribute to an individual's likelihood of arrest. Of these factors, research has shown an obvious influence of suspect race (Gaston, 2019; Tapia, 2015; Alcala and Montoya, 2018; Brownfield et al., 2001). In a meta-analysis conducted on approximately 4,500 sources, Kochel and colleagues (2011) found consistent support for the claim that racial minorities are more likely to be arrested than Whites, with the average probability of arrest for Whites at .20 compared to the average probability for minorities of .26. Beyond arrest rates, the disparate treatment between White and minorities by law enforcement have been made objectively clear in recent cultural events. In Kenosha, Wisconsin, for example, local police faced intense scrutiny and public outrage after a video surfaced showing a Black man, Jacob Blake, being shot in the back four times (7 shots fired in total) by officers. Contrast this to a video also taken in Kenosha depicting a White teenager, Kyle Rittenhouse, walking down the street with a rifle as bystanders called out that he had just shot multiple people. Rittenhouse was not only unharmed by police, but he was asked calmly by an officer if anyone else had been hurt and was not arrested until the following day (Gallman, 2020). Much of the mainstream news media (e.g., CNN, ABC News, New York Times, MSNBC, Fox News) have focused on the deaths of Blacks at the hands of police and the subsequent riots and protests; however, there are

also many instances of police brutality against Latinos. For example, on July 15th, 2020, Jorge Gonzalez Zuniga died while in an intensive care unit following his arrest on April 11th, 2020, for public intoxication. His death was precipitated from the maltreatment he received during his arrest, from which he became paralyzed and unable to breath on his own. He was tripped, punched in the head, tased, and knelt on by several officers (Dobbins, 2020). Beyond media and anecdotal evidence, a study conducted on the use of Stop-Question-Frisk strategy used by the New York Police Department (Marrow et al., 2017) found that not only are minorities subjected to higher rates (Blacks, 53.95%, Hispanics, 31.4%) of these unconstitutional stops than their White counterparts (9.61%), they are also subjected to use of force at higher rates (Blacks, 7.6%, Hispanics, 5.0%) than their White counterparts (0.9%).

The Prosecutorial Process

Once a prosecutor decides to press charges, defendants typically have two options: (1) accept a plea deal (if one is offered), or (2) proceed to trial. Approximately 97% of criminal cases are resolved through plea bargains (NACDL, 2018) and the remaining 3% go to trial. Kutateladze and colleagues (2014) outlined that Blacks and Latinos are not only more likely to be detained pre-trial (47.8% and 14.4%, respectively), but also more likely to receive a custodial plea offer (Blacks, 69.8%, Latinos, 21.2%) over a non-incarcerative alternative than their White counterparts, who are more likely to receive a non-incarcerative alternative. The 3% of criminal cases that go to trial seems negligible; however, racial bias during the trial phase is no less problematic and the fact that juries may not be representative of the community from which they are selected (Ellis & Diamond, 2013; Lehman & Smith, 2013; Sarver 2007) likely contributes to

differential verdicts. Although juries are often tasked with deciding the verdict in a trial, given the high proportion of individuals who resolve their cases without a trial, much of the empirical research has examined prosecutorial decision-making and sentencing.

Prosecutors have significant legal power; they are responsible for bringing or dropping criminal charges against an individual and have the ability to offer or rescind plea deals. Relatedly, prosecutors must also agree to diversion decisions (i.e., diverting an individual to a specialty court to remain supervised in the community in lieu of traditional sentencing; American Bar Association, 2020). They also, of course, play a major role in trial outcomes, including jury selection and deciding what evidence to present to prove a defendant's guilt. In other words, prosecutors have an immense influence on an individual's path through the justice process. There have been a number of empirical studies evaluating the potential bias in prosecutorial decision making. However, these outcomes have shown mixed support for the influence of racial bias in prosecutorial decisions, with some showing favorability to Whites and some showing favorability to minorities. One study by Romain and Freiburger (2013) evaluated the effects of offender race/ethnicity, gender, and age on prosecutorial decisions regarding the outcome of domestic violence charges. Results showed that race and gender influenced whether prosecutors chose to dismiss the charges, such that Black and Hispanic males were more likely to have charges against them dropped than Whites. This is in contrast to the findings of Schlesinger (2013) in which White defendants were more likely to be granted pretrial diversions than their Black or Latino counterparts who were instead incarcerated. Similarly, Wu (2016) found that White offenders were less likely to be charged or prosecuted for similar offenses than minority offenders. Peterson (2017), on the other

hand, examined victim/offender characteristics and found that prosecutors are more likely to pursue death penalty-eligible charges when a crime involves a White victim than those with Black or Latino victims. While findings from these studies are varied regarding the presentation of racial bias in prosecutorial decisions, there is a clear influence of race and ethnicity.

Similar to the literature on prosecutorial decision making, the results on racial bias in sentencing decisions are mixed. For example, two meta-analyses conducted in the early 1990's showed conflicting results. While Mazella and Feingold (1994) did not find support for racial biases in sentencing, Sweeney and Haney (1992) found that racial and ethnic minority defendants received longer sentences than their majority peers. Later studies, however, have shown more consistent support for racial disparities in sentencing (Mitchell et. al., 2005; Wu, 2016). Racial/ethnic bias in sentencing decisions can perhaps be seen most clearly when examining the rates of incarceration for Blacks, Hispanics, and Whites.

Incarceration and Release

Racial and ethnic disparities are particularly evident when examining rates of incarceration. For example, the Bureau of Justice Statistics (2016), in a mid-year report, identified that Black and Hispanic males were incarcerated at drastically higher rates than White men. Specifically, Blacks are incarcerated at 5 times the rate of Whites and Hispanics are incarcerated at 1.4 times the rate of Whites (Nellis, 2016). Further, in a study using case level data of male defendants charged in felony crimes in the U.S. in 2000, Sutton (2012) found that Black and Latinos had a 26% higher chance of going to prison than a White offender convicted of the same or a similar offense. Not only are

Black and Latinos sentenced to prison more often than their White counterparts, they are also more likely to be reincarcerated following re-offense (McGovern et al., 2009). Additionally, Blacks spend longer periods of time in prison than Whites do while awaiting parole decisions (Huebner & Bynum, 2008).

Racial Discrepancies in Diversion Decisions

Although racial/ethnic biases have been extensively studied throughout the legal process, less is known about whether post-conviction placement decisions that are not made through the process of a trial are influenced by extraneous variables. Again, noting the power of prosecutors and the fact that the vast majority of criminal defendants resolve their cases through alternative legal mechanisms, it is imperative to understand if a defendant's race or ethnicity influences the manner in which they are ordered to spend and serve their sentence. Especially for lower-level offenses and/or certain types of offenses (e.g., drug-related), the decision is likely to involve jail time and/or some form of community supervision (with a variety of possible mandated restrictions and expectations). For example, nearly 7 in 10 people involved in the corrections system were supervised in the community versus 3 out of 10 who were incarcerated. Of the estimated 6,410,000 adults in the correctional population in 2018, 3,450,000 were on probation and 878,000 were on parole, together making up nearly 70% of the total population (Maruschak & Minton, 2020). By better understanding the potential role of race/ethnicity in placement and management decisions, we develop more informed strategies to mitigate the inclusion of extraneous variables in these decisions.

The use of diversion as a method to resolve a criminal case can impact an offender at multiple stages throughout the legal process. Prosecutors often have the

decision to recommend diversion (e.g., specialty court, community supervision) or incarceration for an offender to the presiding judge (Peters & Wexler, 2005). Diversion has become a common tool in offender risk management, particularly for individuals facing drug charges. Diversion provides a number of benefits over traditional incarceration. By diverting offenders to community supervision or specialty courts, the cost to taxpayers decreases and the benefit of risk reducing treatment opportunities for the justice-involved person increases (Peters & Wexler, 2005). In fact, the Administrative Office of the U.S. Courts reported that in the fiscal year 2016, incarcerating a justice-involved person cost approximately eight times more than it did to supervise a justice-involved person in the community.

One method of diverting individuals with substance use disorders and mental health disorders, as defined by the Substance Abuse and Mental Health Services Administration (SAMHSA), is the Sequential Intercept Model (SIM). The SIM is a process involving 5 points of interception for an offender to be diverted. These intercepts include (0) community services, (1) law enforcement, (2) initial court hearings/initial detention, (3) jails/courts, (4) reentry, and (5) community corrections. Each of these intervention points allows the primary decision maker in that stage to divert an individual to support services whether that involves lower levels of supervision (i.e., specialty court, community supervision) or higher levels of supervision (i.e., jail, prison; SAMHSA, 2020). This method of diversion follows the recommendations presented in the Risk-Need-Responsivity model presented below, as it works to provide individuals in contact with the legal system with the appropriate level of resources and support, while not relying solely on incarceration.

Of particular interest to the present study is Intercept 3 (i.e., jails/courts), as this stage focuses solely the decision to and process involving the diversion of an individual to community-based services through court programs or to incarcerate an individual. Specifically, Intercept 3 has six key elements for diversion as outlined by SAMHSA (2020). These key elements include treatment courts for high-risk/high-need individuals (e.g., drug courts, mental health courts), alternatives to prosecution programming (e.g., restitution), jail-based programming and health care services, partnerships with community-based providers of mental health and substance use treatment, mental health jail liaisons or diversion clinicians, and collaboration with Veterans Justice Outreach. Diverting an individual at Intercept 3 has a number of benefits. One benefit is clear – those in need of mental health services receive those services more readily (Liu & Redlich, 2015). Further, drug treatment courts, while expensive on face value, result in millions of dollars saved over incarceration (Bhati et al., 2008). Not only is diversion an effective cost-saving measure, but it has also been shown to play an important role in rehabilitation through offender support and use of empirically supported interventions (Liu & Redlich, 2015). The SIM has also contributed to the development of mental health courts. It has been found that mental health courts, as examined in multiple counties across the country, were found to contribute to lower rearrest rates and less incarceration time compared to those who were not diverted to the mental health court (Steadman et al., 2011).

While diversion is meant to appropriately match offenders with appropriate services, this stage of the legal process appears to be likewise susceptible to the influence of racial bias. As previously described, there is obvious overrepresentation of minorities

in the legal system. As seen in both empirical research and real-life examples, minorities are more often treated less favorably by legal personnel (Schlesinger, 2013; Mitchell et al., 2005; Wu, 2016). As the SIM involves diversion decisions made by a number of legal personnel, it is important for researchers and legal personnel to understand how racial biases may influence these decisions.

Predicting Re-offense Likelihood: Using Validated Tools to Reduce Bias

Efforts to mitigate the effects of extraneous variables on legal decisions, particularly at intercepts involving sentencing and re-entry, have been made through the development of predictive risk tools. These risk tools were developed to help increase objectivity in a number of legal decisions including assessing one's risk for violence or reoffense (including revocation from community supervision, management of justice-involved persons and placement decisions (Andrews & Bonta, 1995; Heilbrun et al., 2003). The use of risk assessment in the legal system to help legal professionals make decisions and has significantly evolved over the past 50 years (Borum & Otto, 2000). While the field of risk assessment initially involved an unstructured clinical judgement approach, that tactic is widely seen as ineffective (Heilbrun, 2009). More commonly used and accepted risk assessments today typically use either actuarial or structured professional judgement (SPJ; Hanson, 2009; Tolman & Rotzien, 2007; Douglas et al., 2014; Rice et al., 2013) methods. Both methods were developed with the intention of increasing objectivity; albeit true objectivity is debatable (see Eckhouse et al., 2018). Further, opinions derived from these assessments are highly influential to legal decision makers (Cooper et al., 1996).

The use of empirically supported risk factors is necessary, though perhaps not sufficient, for increasing the objectivity of these assessments and the opinions based on them (Grove et. al., 2000). Actuarial and SPJ approaches weigh empirically supported risk factors and use these risk factors to place individuals into categories of estimated risk (Brown & Singh, 2014; Hanson, 2009). Actuarial and SPJ tools may weigh different risk factors depending on the outcome they are intending to predict. Further, while both approaches involve selecting specified items in advance, their interpretation differs (Hanson, 2009). Actuarial methods calculate a total score based on known or endorsed risk factors (Heilbrun, 2009) and then compare this score to known recidivists. This rate of recidivism is considered the best estimate the examinee's likelihood of re-offense or whatever the outcome of interest is (e.g., failure to appear in court, supervision revocation; Brown & Singh, 2014; Hanson, 2009). Actuarial tools may also then offer a corresponding categorial "bin" (e.g., low, medium, high) to further communicate an examinee's risk level. SPJ tools do not provide numerical estimates and instead only place individuals into categorical bins based on the number and manner in which risk factors are present (or not).

The empirically derived risk factors used in specialized risk assessment tools typically include both static (i.e., fixed) and dynamic (i.e., changing; Brown & Singh, 2014). However, as noted, the specific risk factors within these categories differs across risk tools and for different types of outcomes (e.g., general violence, sexual violence, revocation, failure to appear, institutional misconduct). Some assessments, like the Violence Risk Appraisal Guide – Revised (Mills et al., 2011), incorporate victim gender to evaluate likelihood of future violence. Another risk assessment. As another example,

the Arnold Public Safety Assessment (PSA; Laura and John Arnold Foundation, 2013) includes prior failure to appear as a risk factor (among others) to help predict supervision revocation. Other risk assessments, like the Ohio Risk Assessment System (Ohio Department of Corrections, 2020) and the Level of Service Inventory – Revised (LSI-R, Andrews & Bonta, 1995) adhere more closely to what is referred to as the Central 8 criminogenic risk factors based on Bonta and Andrews (2017) Risk-Need-Responsivity Model (RNR). This model outlines a set of eight risk factors that are most predictive of criminal behavior. These factors include (1) antisocial personality disorder or traits, (2) antisocial cognitions, (3) prior criminal history, (4) poor recreational or leisure time, (5) marital or family distress, (6) lack of education/poor educational attainment, (7) criminal associates, and (8) substance use. Four of these factors (i.e., antisocial personality disorder/traits, antisocial cognitions, prior criminal history, and criminal associates) are particularly predictive of offending behavior.

Importantly, risk assessment tools all require trained professionals to appropriately administer, calculate, and contextualize risk assessment data. Personnel who may be trained on these assessments include behavioral health clinicians (e.g., psychologist, social worker), case managers, probation/parole officers, and other correctional and legal personnel. For example, the Level of Service Inventory – Revised requires 9 hours of continuing education training to be qualified to administer (Global Institute of Forensic Science, 2020), whereas the Ohio Risk Assessment System requires a two full day training program to be qualified to conduct that assessment. The anticipation is that by using an empirically supported risk assessment, the influence of

bias is mitigated as the evaluator is forced to attend to empirically supported factors when assessing risk.

Where Do Race and Ethnicity Fit within Risk Assessment?

Although different risk assessments adhere to different risk factors and models, the race or ethnicity of an examinee is not (nor should it be) included in any validated risk measure. There are, however, arguments that many factors (e.g., education level) act as proxies for race (Starr, 2014). This argument is supported by Marutto & Hannah-Moffat (2007) who argue that minorities are likely to score higher on risk factors such as education and employment, as they are disproportionality affected by poverty. Additionally, Skeem and Lowenkamp (2016) found that Black offenders obtained higher average scores on the Post-Conviction Risk Assessment than White offenders. Not only are there arguments that factors may act as proxies for race, but there are also arguments that risk assessments may actually amplify the effects of racial biases (Picard et al., 2020). These arguments stemmed from an analysis in 2016 conducted by ProPublica (Larson et al., 2016) on the Correctional Offender Management Profiling for Alternative Sanctions tool used in Broward County, FL. Larson and colleagues (2016) found that Black defendants were more likely to be falsely labeled as high risk (45% vs. 23% White) while their White counterparts were more likely to be falsely labeled as low risk (48 % vs. 28 % Black). These researchers further found that Black people were twice as likely to misclassified as being higher risk for violent recidivism. Following the ProPublica 2016 findings, the Center for Court Innovation (Picard et al., 2020) conducted a similar analysis on an assessment tool used with 175,000 New York City defendants. Picard and colleagues (2020) found similar misclassifications of Black and White defendants. As

both studies conducted in major U.S. counties showed racial and ethnic disparities in risk assessment, there is clear need for further research on risk tools and the racial disparities they may perpetuate. Viljoen and colleagues (2019), in fact, highlighted this need, particularly in the area of violence risk-based decisions.

Despite the fact that race is not included as a risk factor on any risk assessment tool, even trained professionals have falsely incorporated race into their opinions of risk (*Buck v. Davis*, 580_US_2017). While attacking bias at the source may seem like an obvious solution, research suggests that interventions to reduce implicit bias are likely to fail and are incredibly difficult to implement (Kovera, 2019). The above findings of racial and ethnic disparities in risk assessment tools and this finding that interventions at the person level are likely to fail suggest two points for the use of risk assessments: (1) users of risk assessment must be cognizant of unintentional exacerbation of racial/ethnic disparities and (2) racial and ethnic disparities are likely to be most successfully targeted at the policy level (Kovera, 2019).

Given the lack of evidence that race is predictive of violence, there is no place for race in risk assessment or the legal decisions based on such assessments. A reliance on race jeopardizes the constitutional rights of minority groups; however, the above concerns about intentional and unintentional inclusion of race as a risk factor highlights the need for further training on conducting these risk assessments. Although it is suggested that policy level interventions are likely to be the most beneficial at reducing racial and ethnic disparities in the legal system (Kovera, 2019) and the concern remains that risk assessments may be unintentionally amplifying these disparities (Picard et al., 2020), the use of risk assessment tools have been widely accepted in the evaluation of

risk and management needs (Vitacco et al., 2012; Mills et al., 2011) and are unlikely to disappear from the legal arena anytime soon. Therefore, we must explore ways in which presenting such data may reduce racially based biased decisions.

A Look at the Level of Service Inventory – Revised

The LSI-R has particular saliency in the allocation of resources, aiding security classification, placement decisions, and treatment outcomes is the LSI-R (Andrews & Bonta, 1995). As noted, the LSI-R was developed around the Central 8 criminogenic risk factors to more accurately assess an individual's likelihood of reoffending without the influence of extraneous variables. The LSI-R is a validated assessment instrument that evaluates 10 domains across a series of 54 questions. These domains include: (1) criminal history, (2) education/employment, (3) financial factors, (4) family and marital status, (5) housing/accommodation, (6) leisure/recreational time, (7) companions, (8) alcohol and drug problems, (9) emotional/personal state, and (10) attitudes/orientation. The LSI-R has not only been shown to be predictive of reoffending but has also shown to have dynamic validity (i.e., changes in scores are as informative as one-time scores; Labrecque et al., 2014). Further, the LSI-R, while normed primarily on White defendants, has acceptable (though less strong) predictive validity in samples of Black and Hispanic defendants (Schlager & Simourd, 2007). The LSI-R has a number of applications; two particularly useful applications involve classifying offenders and identifying risk management needs.

As the LSI-R is useful for determining offender risk and needs based on the RNR model, it may be particularly helpful in aiding prosecutors and judges in deciding which offenders should receive higher levels of supervision and care versus those who may be appropriate for lesser restrictive environments (i.e., community supervision, specialty

court dockets). The risk factors included in the LSI-R also provide correctional and support staff with promising targets for change. As the LSI-R includes a number of dynamic factors, an individual's assessment can provide a personalized picture of service needs (e.g., addressing criminogenic thinking, poor recreation time). The LSI-R also has several benefits, as it is easy to use, thorough, empirically supported, and shows good predictive accuracy. This assessment tool is also formatted to be used in a variety of settings where a determination of re-offense risk would be appropriate (e.g., prisons, jails, correctional half-way hours, community supervision; Bonta & Andrews, 2017).

Examining the influence of racial biases in post-conviction placement decisions (i.e., the placement in which a justice-involved person is ordered to serve their sentence) is important, as there has been limited research on how racial bias influence *where* sentences will be served. Jail offers greater disadvantage given inherent interruptions in daily functioning (e.g., creating unstable employment) than remaining within the community, as well as increased stigma and less opportunity for rehabilitative support. Further, there is little research on how racial bias influences placement and management decisions when presented with empirically validated risk assessment results. By using a risk assessment tool, like the LSI-R, which is based on an empirically supported model of offense prediction, legal personnel may be able to make less racially biased decisions about an individual's risk and provide appropriate accommodations based on their criminogenic needs. Although there is evidence that such tools, especially those including factors like employment and education, may create unintended biases based on race/ethnicity, it seems preferrable at present to continue using empirically guided

assessment tools rather than reverting to unstructured professional judgement where the influence of extralegal factors is likely to be even more prevalent and problematic.

The Present Study

The influences of bias on legally relevant decisions may be more nuanced than what current research suggests. Much of the research has focused on justice-involved persons' race or ethnicity within the context of jury decision making (e.g., final verdicts) but has not focused as much on placement decisions (e.g., whether defendants should receive community supervision in lieu of incarceration, whether they should be subject to mandated treatment requirements). While the number of variables that may impact the influence of race on legal decision-making is vast, it is important to continue refining our understanding about the circumstances in which the color of a defendant's skin can extraneously influence decisions involving predictions of future violence. Further work is clearly needed when legal decisions are (1) based on the outcome of reoffense risk prediction tools and (2) in the context of post-conviction decisions. The present study examines such decisions at the point in the justice system when individuals are at the crux of community supervision and jail time.

Davis et al., (2021) examined whether risk information presented by an expert witness would result in similar outcomes observed in current research on legal decision making. The influence of race on several legally relevant decisions was also explored in this study. Overall, there were few statistically significant differences across conditions by defendant race. The largely null results suggest the possibility that racial biases may have been suppressed because risk information was presented by a credible source. Thus, the presentation of reliable actuarial risk data from an evaluation conducted by an expert

may lead to less biased decisions because triers of fact are able to anchor their opinions in the expert's findings rather than rely on extraneous variables. As such, Davis et al., (2021) supports the importance of using empirically supported factors to determine risk and having a trained professional conduct the risk assessment.

Davis et al., (2021) was the first known study to examine whether a hypothetical justice-involved person's race led to differential perceptions of risk in cases involving formal violence risk assessment outcomes. Because the purpose of the study was to determine whether there is baseline evidence for such a bias in this context, external validity was compromised. The use of written vignettes in this study to establish the presence of a bias based on defendant race may not generalize well to real-world courtroom experiences where defendants are typically visible, and triers of fact are exposed to procedures such as testimony from opposing experts. Further, Davis et al. focused on the use of one validated risk assessment tool in the sentencing phase of a trial; however, as outlined above, there are other legal contexts in which violence risk information is relevant and for which other types of tools are common.

Although Davis et al., (2021) found limited evidence to support a racial bias in outcomes related to violence risk assessment, two primary factors (either independently or in combination) may have diluted the results. First, the use of a written racial descriptor may have decreased the salience of the justice-involved person's race. Second, participants were informed that the risk assessment was conducted by a qualified forensic mental health professional. Knowing the data were established by an expert and without alternative data from an opposing expert, participants may have tuned out or given less weight to the defendant's race, instead electing to go along with the expert's opinion

simply because he was described as such. Those in positions to make decisions based on data from violence and re-offense risk tools, however, are likely to be influenced by any number of other variables. The present study further explored two of these variables – defendant skin color and credentials of the risk assessment examiner.

Re-offense risk tools are often used to guide placement decisions (i.e., sentenced to community supervision or court diversion, incarceration, or some combination) for a justice-involved individual while in the process of resolving their criminal case. Therefore, there is a need to expand this research and examine how racial/ethnic-driven biases may infiltrate legal decisions based on validated risk tools by creating a study that more closely mirrors how risk assessments are used in the real world. The present study not only expanded the diversity of the targets by including a Latino examinee in addition to the Black and White examinees presented but also provided participants with visual representations of the hypothetical examinee (controlling for attractiveness). Further, information regarding the credentials of the person who conducted the risk assessment was varied and compared to a control condition in which no risk assessment results are offered. As this study aimed at increasing external validity, a no-race condition was not included, as individuals making placement decisions and mandated treatment decisions would be aware of the individual in question's racial and ethnic identity. Following from the results of Davis et al., (2021), it is possible that the absence of risk assessment data may lead participants to assign higher levels of reoffense risk. For example, it has been found that participants significantly overestimate risk when presented with risk assessments, regardless of how those risk assessment results were communicated (Batastini et al., 2018). As such, it was anticipated that participants may have even more

difficulty assessing appropriate risk estimates when not presented with any risk assessment findings.

The present study, thus, aimed to expand on Davis et al., (2021) by uncovering additional nuances in the relationship between race and/or ethnicity and decisions that are based on risk predictions generated from validated tools predicting reoffending behavior, specifically when examining placement (i.e., community supervision vs. incarceration) and other management decisions. As nearly all (97%) of criminal cases are resolved outside of a trial, this study looked at the emergence of racial biases in risk assessments that may occur in Intercept 3 of the SIM. Accordingly, this study tasked participants with a more common legal decision than that presented in Davis et al., (2020).

This study had three broad research aims. Each of these are delineated below with corresponding hypotheses.

1. When controlling for explicit racial bias, does the hypothetical justice-involved person's race and/or ethnicity affect participants' decisions about their risk for reoffending, placement in either community supervision or incarceration, and related treatment decisions?
    a. Participants exposed to a justice-involved person depicted as Black or Latino will indicate less agreement with the risk assessment findings (if applicable; this question will be omitted in the control condition), rank the individual in a higher risk category, be more likely to choose incarceration over community supervision, and be less likely to mandate treatment than participants who are exposed to a justice-involved person who is depicted as White.

2. When controlling for explicit racial bias, are participants' risk, placement, and treatment decisions regarding the justice-involved person affected by the presentation of risk data and whether or not it was proffered by a trained examiner?
    a. Participants who are provided risk data from a validated tool in addition to not being informed about who conducted the evaluation will indicate less agreement with the risk assessment findings, rank the individual in a higher risk category, be more likely to choose incarceration over community supervision and be less likely to mandate treatment than participants who are provided details about the examiner's training.
    b. Participants who are not provided any information from the validated risk tool will rank the individual in a higher risk category, be more likely to choose incarceration over community supervision, and be less likely to mandate treatment for the justice-involved person than participants in both conditions where risk data is presented (expert, no-expert).
3. When controlling for explicit racial bias, does the presentation of risk data and whether it was proffered by a trained examiner differentially impact participants' risk, placement, and treatment decisions when the justice-involved person is Black or Latino than when he is White?
    a. Participants who are provided risk data with details about the examiner's credentials and exposed to a White justice-involved person will indicate the highest level of agreement with the risk assessment findings, be the most likely to rank the individual in a lower risk category and choose

diversion over incarceration and more likely to mandate mental health treatment.

b. Participants who are provided risk data without details about the examiner's credentials and exposed to a White justice-involved person will indicate the higher level of agreement with the risk assessment findings, be more likely to rank the individual in a lower risk category and choose diversion over incarceration and more likely to mandate mental health treatment than those who are provided risk data without details about the examiner's credentials and exposed to a minority justice-involved person.

c. Participants who are not provided any information on the examiner's credentials and are exposed to a justice-involved person of minority status will indicate the lowest level of agreement with the risk assessment findings, be more likely to rank the individual in a higher risk category, and to choose incarceration and mandated treatment compared to those participants who are not provided any information on the examiner's credentials and exposed to a White justice involved person.

CHAPTER II - METHODS

This study added to the literature base by further evaluating the effects of race on legal decisions at various stages in the criminal justice system. Davis et al., (2021) primarily focused on decisions in the sentencing phase, whereas this study examined the relationship between race and management (i.e., community supervision, incarceration) decisions. As this study was developed to address some of the limitations from Davis et al., visual depictions of the offender were used, rather than written vignettes only.

Participants

Participants were recruited through Amazon's Mechanical Turk (MTurk). Amazon's MTurk is an online survey dissemination platform that recruits a diverse national sample of participants (Heen et al., 2014). Not only does it allow for collection of a national sample, but it has also been found to be more representative than collegiate samples (Berinsky, Huber, & Lenz, 2012) and social media samples (Casler, Bickel, & Hackett, 2013). MTurk allows survey requesters to set recruitment criteria for participants. This study recruited workers who are located within the United States. Location of participants will be screened through an application used to screen and verify IP addresses (see *Validity Check Items)*. In addition to the MTurk criteria, participants were only included if they met the following eligibility criteria: (1) 18 years of age or older, (2) U.S. citizen, (3) no prior or pending felony convictions, and (4) fluent in English. This eligibility criteria follows the same guidelines that are used within the U.S. justice system to identify jury eligible individuals. These criteria were used to increase external validity of our study, as individuals making diversion decisions (e.g., judges) are expected to have these basic characteristics. In fact, research has shown that judges and

mock jurors often make similar legal decisions (Weinburg et al., 2019). Further, the majority of research conducted on legal decision-making, including decisions that would not typically be made by jurors (e.g., competency), uses mock juror samples (van Es et al., 2020). Using G*power to perform a power analysis, the sample size needed to be at least $N = 386$, with $f^2 = .25$ for an ANCOVA with two independent variables, one covariate, and one dependent variable (Faul et al., 2009). In anticipation of missing or invalid data, a buffer of 10% more than the sample size determined by G*Power was collected. Participants who met eligibility criteria and successfully completed the survey were compensated $1.25 for their participation.

A total of 595 participants were collected for this study. After data cleaning, the final total sample size was 448. Based on the above G*Power analysis, the analyses were acceptably powered. The participants were assigned to the conditions as follows: Black, Expert Risk (*N* = 50, 11.2%), Black, Non-Expert Risk (*N* = 52, 11.6%), Black, No Risk (*N* = 48, 10.7%), White, Expert Risk (*N* = 45, 10.0%), White, Non-Expert Risk (*N* = 51, 11.4%), White, No Risk (*N* = 53, 11.8%), Latino, Expert Risk (*N* = 50, 11.2%), Latino, Non-Expert Risk (*N* = 50, 11.2%), and Latino, No Risk (*N* =49, 10.9%). Participants ranged in age from 18 to 77 years old, with a mean age of 40.96 years (*SD* = 13.058). The final sample was majority male (50.9%) and White (77.5%). The majority of participants had a Bachelor's degree (44.2%) with a high school diploma or equivalent being the second most frequent educational level (22.3%).

Just under half of participants identified as affiliating with the democratic party (44.3%), while individuals identifying as republican (25.4%) and independent (25.2%) made up the majority of the remaining sample. Only 25 (5.6%) participants reported

experience or training in the legal profession and 28 (6.3%) had experience or training in the mental health profession. Approximately one-fifth (20.5%) of participants had previously served as a member of a jury. Further, the most frequently endorsed religious affiliation was Catholic (19.9%) with Agnostic (17%) being the second most frequently endorsed religious affiliation. See Table 1 and Table 2 for additional participant demographics.

Materials

Measures were counterbalanced to control for order effects with the Color-Blind Racial Attitudes Scale and the demographic questionnaire having been presented last to avoid potential priming effects. The survey was expected to take approximately 10 minutes to complete. Measures can be found in Appendix E.

Validity check items

Five items were implemented into the survey to ensure participant attentiveness to the provided vignettes and questions. These items will act as exclusionary items. One item imbedded in the survey was a captcha verification tool, to aid in the filtering of bots based on the recommendations of Chmielewski and Kucker (2020). The second item embedded was an audio recording of the word “apple” without associated written stimuli. Participants were asked to type the word they heard in the audio in a free-text box. Participants who responded with an answer other than “apple” were considered to have incorrectly responded to this item. Two experimenter-derived validity check items were included in the survey to ensure attentiveness to the survey vignettes. These items presented included (1) which of the following best describes Mr. Doe; and (3) of what crime was Mr. Doe convicted. Lastly, an attentional check item asking participants to

select “3” was inserted into the Color-Blind Racial Attitudes Scale. Further, IP Hub, created by Kennedy and colleagues (2020), was used to screen and verify IP addresses at the beginning of data collection to both dissuade bots and to prevent an individual from responding multiple times.

Experimenter-derived risk agreement and management questions

To measure participants’ agreement with the risk assessment results, risk category, sentence placement decision and need for mandated treatment, four experimenter derived questions were included in the survey items. The first question asked participants to rate (on a scale from 0 – 100) how much they agree with the risk assessment findings. Second, participants were asked which category (i.e., low, low/moderate, moderate, moderate/high, high) of risk they believe Mr. Doe to fall in. Third, participants were asked to decide if Mr. Doe should be incarcerated for the duration of his sentence or if he should serve his sentence on community supervision. Fourth, participants were asked if Mr. Doe should be mandated to attend mental health treatment.

Social Desirability Scale

The Marlowe-Crowne Social Desirability Scale (MCSDS) is a 13-item measure used to assess participants’ impression management. Frequently, in self-report measures, individuals may respond in a socially desirable manner (Lambert et al., 2016). The MCSDS was used in this study given concerns about impression management related to participants’ self-reported racial bias. Respondents with higher scores are likely answering in ways that are socially desirable – exaggerating the good and minimizing the bad. Sample items from the MCSDS read “I have never deliberately said something that

hurt someone's feelings" and "I sometimes feel resentful when I don't get my way", which are items that many individuals would describe having experienced at some point in their lifetime and are considered normative experiences. In the present study, internal consistency was likewise acceptable (α = 0.79).

Color-Blind Racial Attitudes Scale

The Color-Blind Racial Attitudes Scale (CoBRAS) was used to assess participants' attitudes about race. The CoBRAS is a 20-item measure assessing individuals' attitudes towards racial privilege, institutional discrimination, and blatant racial issues (Neville, Lilly, Duran, Lee, & Brown, 2000). This measure is considered to be positively related to the Modern Racism Scale which is a measure of explicit racial bias that has been determined to be relatively non-reactive (McConahay et al., 1981). The CoBRAS uses a 6-point Likert scale ranging from "strongly disagree" to "strongly agree" with higher scores indicating greater blindness towards racial issues. Sample items from this measure read "race is very important in determining who is successful and who is not" and "racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin." Neville et al., (2000) found the initial internal consistency to be strong (α = 0.91). The current study found the internal consistency to be strong (α = 0.95).

Demographic Questionnaire

The demographic questionnaire assessed participants' gender, age, race/ethnicity, education status, political affiliation, religious affiliation, and training or experience in the legal or mental health professions.

Procedure

Approval for the project was obtained from the University of Southern Mississippi's Institutional Review Board (IRB; see Appendix F). The survey itself was developed on Qualtrics, another online survey platform. The Qualtrics survey link was disseminated through the MTurk recruitment page via a unique URL. The MTurk recruitment page included all eligibility criteria, approximate survey length, a brief description of the study and compensation information. Interested MTurkers were instructed to click on the Qualtrics survey URL. Once directed to the Qualtrics survey, they were provided a full consent document outlining the eligibility criteria, study description, risks and benefits to participation and how to earn compensation (see Appendix A). Participants were first consented prior to the start of the survey. If participants opted to move forward, they were screened for eligibility criteria. If participants did not meet eligibility criteria, they were promptly removed from the study and thanked for their time and interest.

Eligible MTurkers who consented to participate were randomly assigned to one of three conditions that differed only on the justice-involved person's race/ethnicity and the risk information and details of the examiner's credentials: (1) Black × Expert Opinion on Risk, (2) Black × Risk Information Only, (3) Black × No Risk Information , (4) White × Expert Opinion on Risk, (5) White × Risk Information Only, (6) White × No Risk Information , (7) Latino × Expert Opinion on Risk, (8) Latino × Risk Information Only, (9) Latino × No Risk Information . Following random assignment to one of these nine conditions, participants were presented with a visual stimulus of the offender and asked to read a vignette (see Appendix B) outlining relevant background information of the

convicted individual, Mr. Doe. Following this vignette, if participants were assigned to one of the two conditions in which risk information is presented, they were asked to read another vignette (see Appendix C) outlining Mr. Doe's results from the Level of Services Inventory-Revised (LSI-R; Lowenkamp & Bechtel, n.d.), a validated actuarial assessment tool used to identify an individual's needs and propensity for reoffending to determine appropriate services.

The visual stimuli used in this study were selected from the Chicago Faces Database, version 2.0.3 (Ma et al., 2015). This database was created in 2015 at the University of Chicago. This database includes standardized photographs of individuals from various ethnic backgrounds and ages. The photos included in the Chicago Faces Database have been normed on myriad constructs. The visual stimuli were chosen based on comparative ratings on the constructs of age, race/ethnicity, attractiveness, masculinity, and dominance (see Appendix D). Specifically, the targets selected had ratings of age from 34.54 years of age to 35.13 years of age, with average attractiveness, masculinity, and dominance.

Reoffense risk and criminogenic needs were determined in this study by the Level of Services Inventory-Revised (LSI-R). The LSI-R is a 54-item measure that assesses needs in 10 domains including previous criminal history, education and employment, finances, family/marital relationships, accommodations, leisure and recreational activities, antisocial associates, substance use, emotional/personal problems, and attitudes/orientation (Andrews & Bonta, 1995). The scores in these domains add up to a total score with a maximum of 54 and places individuals into one of five risk categories: (1) Low, score range 0 – 13; (2) Low/Moderate, score range 14 – 23; (3) Moderate, score

range 24 – 33; (4) Moderate/High, score range 34 – 40; and (5) High, score range 41 – 54 (Lowenkamp & Bechtel, n.d.). For this study, Mr. Doe' risk assessment information was based on a real, de-identified LSI-R assessment conducted by a trained administrator.

CHAPTER III - RESULTS

Statistical Analyses

Hypotheses regarding group differences in participants' agreement with risk findings were tested using a one-way analysis of covariance (ANCOVA) in SPSS. The primary goal of an ANCOVA is to determine if groups differ in a statistically meaningful way on a single dependent variable while adjusting for a covariate (Tabachnick & Fidell, 2013). For this analysis, the independent variables were: (1) justice-involved person's race/ethnicity and (2) risk information. The continuous dependent variable in this analysis was agreement with the risk assessment findings. Self-reported racism (total scores on the CoBRAS) was entered into the model as a covariate. Statistical significance was determined by an alpha level of $p < 0.05$ for all analyses and effect size estimates are reported. Prior to running this ANCOVA, significance and reliability of the covariate (CoBRAS total score) was assessed.

Hypotheses regarding group differences in participants' placement and mandated treatment decisions were assessed using two binomial logistic regressions. For these analyses, the predictors were: (1) justice-involved person's race/ethnicity and (2) risk information. The predicted variables in these respective regressions were: (1) placement decision and (2) mandated treatment decision. Goodness of fit was assessed through the Pearson value and chi-square likelihood. The Cox-Snell R^2 value was produced as a measure of effect (Field, 2015). Significant effects on the predicted variables were assessed using Wald's statistic, with $p < 0.05$.

Hypotheses regarding group differences in participants' categorical risk ranking was assessed using a multinomial logistic regression. The predictors were: (1) justice-

involved person's race/ethnicity and (2) risk information. Significant effect on the dependent variable was assessed using Wald's statistic, with $p < 0.05$. Goodness of fit was assessed through the Pearson value and chi-square likelihood, with the Cox-Snell R^2 value used as a measure of effect (Field, 2015). This analysis was chosen because it allows for the comparison of outcomes based on selected group category.

Data Screening and Preparation

Data from 595 participants were collected for this study. Forty-four participants were removed due to duplicate IP addresses, 39 were removed due to failed eligibility criteria, 8 were removed for failure of attentional check items and 19 were removed due to IP addresses marked as unsafe or outside of the United States by IPHub.com. Following these checks and before the correction of missing data, the sample size was $N = 483$.

Missing Data

The remaining cases ($N = 483$) were screened for completion of the survey items. Self-report measures were considered in the analyses if at least 75% of the item responses to that measure were complete. Using this criterion, 1 additional participant was removed from analyses. The remaining missing data were considered not missing completely at random as determined by a SPSS Missing Values Analysis procedure using expectation minimization as demonstrated by a significant Little's MCAR test ($x^2 = 966.965$, DF = 812, $p < .000$). While missing data were not considered to be missing at random, no variables had more than 1% missing data. Given the sample size remained well-over the anticipated sample size, thus not impacting statistical power, individuals with missing data ($n = 35$) on relevant survey items (e.g., not demographic variables) were removed

listwise from the dataset, leaving a final sample size of $N = 448$. Following a Missing Values Analysis with demographic variables included, the remaining missing data was found to be missing completely at random as demonstrated by a significant Little's MCAR test ($x^2 = 40.007$, DF = 35, $p = .258$).

Examination of Outliers

Cases were then screened for univariate outliers. First, frequency and descriptive statistics were generated for survey items and demographic variables to determine appropriate minimum and maximum ranges. None of the values within the variables fell outside of the expected ranges. All demographic variables and survey items were then converted into standardized z-scores and assessed for univariate outliers using Tabachnick and Fidell's (2013) recommendations. Cases represented univariate outliers if they had a *z*-score greater than 3.29 ($p > .001$), as this cutoff suggests a deviation from the normal distribution. No univariate outliers were found on variables included in the primary analyses.

Parametric Assumptions

Because differences in ratings of agreement with risk findings (expert or not) were tested using an ANCOVA, the assumptions of normality, linearity, and homogeneity of variance and covariance were first checked. Multicollinearity was also examined given that dichotomous placement and treatment decisions by condition were assessed using binomial logistic regressions and risk category was assessed using a multinomial logistic regression.

Normality

Normality was assessed by evaluating skewness and kurtosis, as well as assessing frequency plots in SPSS for all outcomes of relevance to primary analyses. Standardized (*z*) values were also used to assess for skewness and kurtosis. This is based on the recommendation from Tabachnick and Fidell (2013) and George and Mallery (2010) that *z* values within the range of -2 to +2 are within acceptable limits of skewness and kurtosis. Each dependent variable included in the primary ANCOVA appeared to have mild deviations from the normal curve, as evidenced by significant Kolmogorov-Smirnov tests ($p < 0.05$). However, only placement decision fell slightly outside the recommended -2 to +2 range (skew: $z = -2.101$; kurtosis: $z = 2.427$). Nonetheless, placement decision was considered numerically sufficient. Further, skewness and kurtosis on these values are less relevant, as this variable was dichotomous and thus skewness and kurtosis do not provide particularly meaningful information.

Linearity

Linearity was assessed by examining bivariate scatterplots on all variables used in the multivariate analysis. The relationship between variables is considered linear if the data has an oval-shaped distribution on the generated scatterplot matrix (Tabachnick & Fidell, 2013) or a non-significant value (e.g., $p > .05$) when assessed by comparing means. This was assessed through an examination of deviation from linearity of means for each dependent variable. All relevant independent variables were linear as evidenced by non-significant deviations.

Homogeneity of Variance and Covariance

Homogeneity of variance was assessed through Levene's test. Levene's test compares significant group differences in error across each condition. Values were in violation of homogeneity when values were below the significance level of .05 (Pallant, 2016; Tabachnick & Fidell, 2013). Based on significant Levene's statistics for risk agreement rating ($p < .001$), placement decision ($p < .001$), and mandated treatment decision ($p = .016$), the assumption of homogeneity of variance was not met. However, as the population sizes are roughly equal across conditions, it is reasonable to continue analyses (Salkind, 2010). The assumption of homogeneity of variances was met for SDS total, $p = .497$, and CoBRAS total, $p = .928$.

Box's M was used to assess homogeneity of covariance. Box's M is recommended as it is used to evaluate the equality of covariance matrices (i.e., comparing the variance of different groups) among the variable intended for use in the multivariate analysis. The assumption of covariance matrices is met when values on Box's M is larger than .001 (Pallant, 2016). The assumption of covariance matrices was met for all relevant outcomes (Box's M = 38.261, $p = .915$).

Multicollinearity

Multicollinearity was assessed by examining collinearity diagnostics (i.e., tolerance and VIF values). Collinearity was assumed if VIF values are above 10 and tolerance values fall below 0.2 (Field, 2015). This was assessed through a regression analysis. For risk category, the VIF value equaled 1.244 and tolerance was .804. For placement decision, VIF equaled 1.183 and tolerance was .845. For treatment decision,

VIF equaled 1.063 and tolerance equaled .941. Thus, the assumption of multicollinearity was not violated for any of these variables.

Descriptive Statistics

Group Equivalence

To better ensure randomization, between group differences were assessed using one-way ANOVAs for continuous demographic variables (i.e., age, MCSDS total scores, CoBRAS total scores). No statistically significant differences were found across the nine conditions ($F(8, 448) = 1.055$, $p = .394$; $F(8, 448) = 950$, $p = .475$; $F(8, 448) = .477$, $p = .872$), respectively. For categorical demographic variables (i.e., gender, race/ethnicity, educational degree, political affiliation, religious affiliation, training or experience in the mental health or legal professions), Pearson's chi-square tests were run. Statistical significance was determined by an alpha level of $p < 0.05$. No significant group differences were found on participant gender ($\chi^2 = 18.298$, $p = .307$), race and ethnicity ($\chi^2 = 28.612$, $p = .639$), political affiliation ($\chi^2 = 44.112$, $p = .302$), religious affiliation ($\chi^2 = 144.839$, $p = .286$), highest education level ($\chi^2 = 57.508$, $p = .419$), legal training ($\chi^2 = 6.634$, $p = .577$), past jury service ($\chi^2 = 5.805$, $p = .669$), or mental health experience ($\chi^2 = 4.958$, $p = .762$).

Correlations of the SDS and CoBRAS

As participants who endorse more socially desirable responding would be expected to suppress racial attitudes, a bivariate correlation analysis was conducted between total scores of the SDS and the total scores of the CoBRAS. Although the correlation between these measures was statistically significant ($p < .001$), the Pearson correlation value was particularly small (0.163). The correlation between these two

measures makes theoretical sense as they both assess individuals' perspectives on items that have social implications. Because the correlation value was close to 0 and the assumption of multicollinearity was not violated, it was not necessary to include the SDS total score as an additional covariate (Salkind, 2010).

Primary Statistical Analyses

ANCOVA on Risk Agreement

The ANCOVA used to examine group differences in participants' agreement with the risk findings was run only on the four conditions that were exposed to any risk information (expert vs. no expert), leaving a final sample size of 298 for this analysis. That is, the two conditions that did not include risk information were excluded. Following adjustment of means for CoBRAS total scores, results of the omnibus ANCOVA showed no statistically significant between-group differences on risk agreement ratings ($F(1, 298) = 1.83$, $p = .177$, partial eta squared = .006, observed power = .271), defendant race/ethnicity ($F(2, 298) = .085$, $p = .918$, partial eta squared = .001, observed power = .063) or with the interaction of race and ethnicity and risk information ($F(2, 298) = .764$, $p = .467$, partial eta squared = .005, observed power = .180). Therefore, the hypothesis that risk agreement ratings would differ based on the examinee's racial and ethnic identity and whether or not the risk information was presented by an expert was not supported. As there were no significant effects in the omnibus ANCOVA, post-hoc analyses were not conducted. There was, however, a statistically significant effect of self-reported racial bias on risk agreement ratings ($F(5.58, 298) = 5.58$, $p = .019$, partial eta squared = .019, observed power = .653). Thus, regardless of the examinee's race and ethnicity, or how the risk information was

presented, participants who scored higher on the CoBRAS rated the examinee as higher risk. Group means and standard deviations are provided in Tables A3, A4 and A5.

Binomial Logistic Regressions on Placement and Treatment Decisions

Placement decision. The binomial logistic regression was performed on all conditions; therefore, the total sample size was 448. The Block 0 model explained 8% (Nagelkerke R^2) of the variance in placement decision and correctly classified 82% (n = 386) of cases in which community supervision was chosen over incarceration as the appropriate placement for the hypothetical examinee/defendant. The omnibus regression test was significant ($\chi^2(5, N = 448) = 22.467$, $p < .001$). The Homser and Lemeshow Goodness of Fit test was non-significant (χ^2 (5, N = 448 = 8.65, p = .373), suggesting that there was not a statistically significant difference between the predicted and observed values. The Block 1 model correctly classified 82% (n = 386) of cases in which community supervision was chosen over incarceration as the appropriate placement for the hypothetical examinee/defendant and prediction correctness was not improved.

Risk information and racial and ethnic identity were not statistically significant predictors of placement decision (Wald's test = 2.803, p = .246; Wald's test = 1.219, p = .544, respectively). Therefore, the hypothesis that placement decisions would differ based on the examinee's racial or ethnic identity and risk information was not supported. The CoBRAS total score was the only statistically significant predictor of placement decision within the model (b = -.025, s. e. = .012, Wald's test = 17.108, $p < .001$). As CoBRAS scores increased by one point, the odds of selecting community supervision decreased by .025 points. Thus, people reporting higher levels of racial bias were more likely to

suggest incarceration over community supervision, regardless of the examinee's identified race orethnicity.

Treatment decision. The Block 0 model explained 3% (Nagelkerke R^2) of the variance in treatment decision and correctly classified 54.9% (n = 246) of cases in which "no" was selected over "yes" when asked about mandated treatment for the hypothetical examinee. The omnibus regression test was non-significant ($\chi^2(5, N = 448) = 10.432$, p = .064). The Homser and Lemeshow Goodness of Fit test was also non-significant (χ^2 (8, N = 448) = 5.633, p = .688), suggesting that there was not a statistically significant difference between the predicted and observed values. The Block 1 model correctly classified 57.8% (n = 178) of cases in which no treatment was chosen over mandated treatment for the hypothetical examinee/defendant and prediction correctness was improved.

The racial or ethnic identity of the examinee significantly predicted treatment decisions (b = -.666, s. e. = .237, Wald's test = 7.935, p = .005), such that the odds of a participant selecting no mandated treatment for a Black examinee was .666 points lower than the odds of a participant selecting no mandated treatment for the White or Latino examinee. That is, participants exposed to a Black man, regardless of whether risk information was presented or by whom, were more likely to choose mandated treatment than those exposed to a White or Latino man. Therefore, the hypothesis that mandated treatment decisions would differ based on examinee racial or ethnic identity was supported. However, neither risk information nor CoBRAS scores were statistically significant predictors of treatment decision (Wald's test = 2.12, p = .346; Wald's test =

3.013, p = .917, respectively). The hypothesis that mandated treatment decisions would differ based on risk information was not supported.

Multinomial Logistic Regressions on Categorical Risk Decision

The multinomial logistic regression was also performed on all conditions; therefore, the total sample size was 448. The Pearson's Chi-square test for was non-significant (1024.63; p = .245), suggesting poor model fit. The Chi-square likelihood was significant (912.31, p < .001). The Cox-Snell R^2 was assessed to be .222. The likelihood ratio tests showed significant differences in ranked risk category as predicted by CoBRAS scores (24.05; p = < .001) and by risk information (80.345, p = < .001).

Exposure to risk information (i.e., both expert testimony and general risk information) was statistically significantly related to categorical risk decisions for individuals selecting "low risk" when compared to the reference group ("moderate-high"). Participants who were exposed to risk information and told it was derived by an expert were less likely (Exp(B) = .043) to select "low risk" than those exposed to risk information that was not backed by an expert or not provided any risk information. Exposure to expertly derived risk data was also statistically significantly related to categorical risk decisions for participants selecting "moderate risk" when compared to the reference group (Exp(B) = 2.84), such that participants exposed to expert-derived risk information were significantly more likely to select "moderate risk" than participants in the other risk information conditions. Importantly, the forensic examiner also concluded the examinee was at moderate risk, suggesting participants were more likely to agree with the risk information if it was supported by an expert. Thus, the hypothesis that participants who did not view reoffense risk information would rank the examinee in a

higher risk category than those who could anchor their perceptions in available risk information was supported.

CoBRAS scores were significantly related to categorical risk decisions for those selecting “low risk” ($p = .002$) and “low-moderate risk” ($p = .036$) when compared to the reference group (“moderate-high”). Specifically, as CoBRAS scores increased by one point, the likelihood of a participant choosing “low risk” or “low-moderate risk” decreased by .954 and .966 points, respectively. Thus, individuals reporting higher levels of racial bias were more likely to choose a higher risk category than those with lower levels of reported bias.

CHAPTER IV – DISCUSSION

The United States has a long history of unjust treatment of racial and ethnic minority defendants that has contributed to disparities at nearly every point in the legal system from arrest to incarceration and re-entry. While there is a large literature base examining associations between an individual's race or ethnicity and the likelihood of arrest, guilty verdicts, and harsher sentencing, estimates of reoffense risk and management decisions (i.e., diversion, treatment mandates) that are often based on those estimates have received less attention. Further, no known studies have examined whether such decisions can be influenced by the mere presence of an expert evaluator in presenting risk information. In Davis et al., (2021), racial bias was not found to influence decisions about violence risk. However, these authors explained their results may have been suppressed because participants, regardless of condition, were told the risk information was derived by an expert—likely viewed as a credible source. Not only does the present study expand on Davis et al., (2021) by directly manipulating exposure to risk information and whether it was associated with an expert's evaluation, but it also expanded the diversity of the hypothetical defendants and used visual depictions (controlling for age and attractiveness) of each to improve external validity.

The first aim of this study was to determine if a hypothetical justice-involved person's race and/or ethnicity affected participants' decisions about his risk for reoffending, appropriate placement (i.e., community supervision or incarceration), and mandated treatment. The results of this study failed to show that race or ethnicity led to biased judgments about risk agreement or appropriate placement. It should be noted, however, that the main effect of examinee race or ethnicity on risk agreement

demonstrated low observed power. However, race was associated with differences in mandated treatment decisions for the Black examinee, such that participants were more likely to select mandated treatment than those exposed to the White or Latino examinee.

Secondly, this study aimed to understand if participants' decisions about the examinee's risk, placement, and treatment was impacted by the presentation of risk data and whether or not it was proffered by a trained examiner. Results showed that only participants' categorical risk selection was influenced by the presence of risk data and only when they were told it was derived by a trained examiner. Thus, when presented with risk data proffered by an expert, it appears participants were more willing to anchor their decisions in the expert's.

Regardless of the examinee's racial or ethnic identity or presence of risk data, individuals who reported higher levels of racial bias were more punitive across decisions, including choosing incarceration over community supervision and rating the examinee higher risk. This finding is consistent with Davis et al., (2021), who theorized this increase in punitiveness may be attributable to other characteristics or beliefs that are often associated with racism. For example, some research shows that people who endorse higher levels of racial bias also report increased conservativism and tough on crime attitudes (Brown et al., 2019). Understanding how an individual's belief in a "just world" or a belief that the "world is dangerous" may provide valuable insight into the association between racial biases and punitive decisions. Future researchers are encouraged to examine these relationships as well as potential relationships between religious or political affiliation and racial biases.

Forensic and Correctional Practice and Policy Implications

This study has several implications for forensic and correctional practice and policy. First, results did not overwhelmingly support the presence of racial bias as it related to differences in decisions for the Black, White or Latino examinees, aside from treatment decisions. This outcome suggests there may be bias in who should be required to participate in treatment, particularly for Black individuals. Given the wording of this particular question, at least three hypotheses may be considered: 1) the Black examinee was seen as more amenable to treatment, 2) the Black examinee was seen as less motivated to voluntary attend treatment, and/or 3) the White and Latino examinees were seen as less in need of treatment. Regardless which hypotheses are true, this finding highlights the importance of ensuring mandated treatment decisions are equitable. Assigning the Black examinee to mandated treatment more often than his counterparts is not only potentially racist, but it could also lead to an oversight in correctional services for other examinees. Research supports that individuals mandated to treatment have similar outcomes to those who attend treatment voluntarily (Snyder & Anderson, 2009). Further, justice-involved individuals are more likely to complete treatment when court-ordered versus those who are not court ordered (Coviello et al., 2013).

Perhaps the most compelling finding from this study was that risk information proffered by an expert seemingly helped participants focus on the data being reported. As such, the inclusion of expert testimony or deposition when making determinations based on estimate risk should be considered. This result, in addition to the results of Davis et al., (2021), provides a promising method of reducing racial and ethnic related biases in legal decisions. If individuals can make decisions more in line with the risk information

simply because they have been informed by an expert, it would be useful to include qualified forensic examiners at relevant legal intercepts where risk is central to the disposition of a justice-involved person (e.g., trial, sentencing, release). With the inclusion of expert risk evaluations at these intercepts, it is important that examiners ensure they are using best practices when determining reoffense risk and that their interpretations are culturally informed (Shephard & Anthony, 2017). Using validated risk tools is particularly important given that experts can also be vulnerable to incorporating extraneous factors when making risk predictions (*Buck v. Davis*, 580 US_2017).

Although this study was not about potential systemic biases in the development of risk assessment tools, it emphasizes the need to ensure these tools and resultant estimates are accurate and as bias-free as possible. Risk assessment tools were developed to increase objectivity in a number of legal decisions (Andrews & Bonta, 1995). While many actuarial and structured professional judgement (SPJ) tools are well accepted and integrated into forensic clinical practice (Hanson, 2009; Tolman & Rotzien, 2007; Douglas et al., 2014; Rice et al., 2013), there is debate about the true objectivity of these methods (Eckhouse et al., 2018; Marutto & Hannah-Moffat, 2007; Starr, 2014; Picard et al., 2020). Recent literature has suggested that some of the factors incorporated into actuarial and SPJ tools (e.g., education level, employment status) are proxies for race and that people of color are likely to score higher on risk estimates given that they are disproportionality affected by poverty (Skeem & Lowenkamp, 2016). Additional research on bias in risk assessments was also highlighted recently by Viljoen and colleagues (2019). Our finding that individuals seem to attend more or give more weight to categorical risk information when communicated by experts makes it imperative the

conclusions drawn from risk assessments reflect true risk level and needs rather than systemic racism. Nonetheless, research consistently shows that reliance on structured, empirically-supported risk tools leads to more objective outcomes than unstructured professional judgment (Gutierrez et al., 2016; Grove et al., 2000; Viljoen et al., 2021 and even when structured tools contain bias, they can still lead to unbiased outcomes (Lowder et al., 2022). In other words, racial biases are far more likely in the absence of these tools.

Limitations and Recommendations for Future Research

Despite expanding Davis et al., (2021), several noteworthy limitations remained. First, research is still needed to expand the diversity of examinee racial and ethnic characteristics, including replication with varying genders. For example, variations in skin color and tone, even within racial or ethnic groups, may be associated with differing levels of bias (e.g., women with lighter skin tones receive more lenient prison sentences than darker-skinned peers; Viglione, Hannon, & DeFina, 2011). Visual stimuli were selected based on equivalent normed ratings of facial expression, attractiveness, and age (approximately 35 years); yet there may be other demographic constructs that influence decisions. For example, the U.S. prison population is aging (Carson & Sabol, 2016) and older adults have different challenges related to sobriety and risk factors than younger adults (Kuerbis et al., 2014). It is possible older adults may be seen as less changeable (e.g., “you can’t teach an old dog new tricks”), leading to higher risk ratings or more punitive decisions; however, people tend to desist from crime with age (Cohen & Schmitt, 2017; Cornelius et al., 2017). Researchers are encouraged to examine bias in legal decisions being made at Intercept 3 when gender, age, and other extraneous characteristics are varied.

Second, participants were only asked if they believed Mr. Doe should be mandated to attend mental health treatment. In hindsight, this question was ambiguous. Participants selecting "no" could have believed the examinee did not need treatment at all (i.e., no treatment) or they may have believed the examinee should attend treatment but not be mandated to do so (i.e., voluntarily treatment). Therefore, further research should more clearly define this question so the source of this bias in treatment decision-making can be better understood. Examining other factors (e.g., perspectives on the usefulness of treatment, beliefs about the relationship between treatment and recidivism) may provide further context for how racial bias may influence treatment decisions. Future research should also consider asking participants to frame their decisions; for example, what are the impacts to the individual making the decision versus the impacts to the person being evaluated.

Third, this study only examined racial and ethnic bias and risk data at one intercept of the legal system. However, risk assessment tools are used at different stages of involvement in the legal system and for different purposes (e.g., discharge from civil commitment placements, release from prison). Future research should examine how the presentation of expert risk and the racial or ethnic identity of examinees influences legal decisions at other intercepts and using different approaches to risk assessment (e.g., actuarial, structured professional judgement). This study also focused on one type of crime. Given that the public holds more negative views about drug addiction compared to mental illness (Barry et al., 2014), participants may have held biased views about the long-term capacity for people convicted of drug crimes to change. Individuals' views of drug offenses and the criminalization of substance abuse would be useful to assess.

Additional studies should also examine whether results generalize to crimes of differing severity levels or people with more extensive criminal histories.

Fourth, this study used a non-professional sample of jury eligible participants. The use of similar samples is common in research conducted on legal decision making, including research on decisions that would not typically be made by jurors (e.g., competency; van Es et al., 2020). Further, judges and mock jurors often make similar legal decisions (Weinburg et al., 2019). Nonetheless, it remains unclear how actual judges would respond. Because judges are primarily responsible for making diversion and mandated treatment decisions, future researchers are encouraged to examine whether results hold for judges, particularly those who frequently encounter risk assessment data.

Fifth, like many research samples (e.g., Davis et al., 2021), the demographic make-up of was predominately White (77.5%). This is unfortunately typical of juror samples within the U.S. (Ellis & Diamond, 2007; Lehman & Smith, 2013). Nonetheless, it limits the generalizability of findings to participants of color. Obtaining more diverse samples, however, is further complicated by the racial skew of participants recruited from mainstream data collection services (e.g., MTurk; Berinsky et al., 2021). To provide a more accurate picture of the relationship between racial biases and legal decision making, future researchers must incorporate more intentional methods of recruiting people of color (e.g., using quotas within surveys to ensure accurate representation).

Lastly, there are myriad individual characteristics that may have contributed to a participant's ability to understand risk information and/or make objective decisions. Numeracy skills, for example, are important when jurors are asked to consider numerical data in cases involving violence risk (e.g., Barnes et al., 2016; Scurich et al., 2012).

Participant characteristics such as their own race, personality traits, political affiliation, and attitudes towards punishment may also moderate the relationship between racial bias and legal decision making. Thus, future researchers are encouraged to evaluate the interaction between participants demographics, their understanding of risk information, and the legal decisions they make based on that information.

CHAPTER V – CONCLUSION

There is little debate that people of color—particularly those from Black and Brown communities–come into contact with the legal system more frequently and are likely to experience more serious outcomes than their White counterparts. Where and how these disparities seep into the legal process is at the forefront of criminal justice research; yet, more work is needed to understand the nuanced relationship between racism and legal outcomes. In a previous study, Davis and colleagues (2021) did not find clear support for racial bias by decision-makers at the point of sentencing. However, it was hypothesized that the expert testimony presented in this study may have acted as a mitigating factor. While the present study also did not provide strong support for race or ethnicity-based biases, it likewise suggested that the presence of an expert's opinion about an individual's risk may mitigate inaccurate risk rankings. These findings make it all the more important for risk estimate tools to be as bias-free as possible when developed, used, and interpreted by experts.

APPENDIX A - TABLES

Table A1. *Total Sample Demographics*

Respondent characteristic	*M*	*SD*
Age	40.96	13.058
Respondent characteristic	***N***	**%**
Gender		
Female	217	48.4
Male	228	50.9
Race/Ethnicity		
White/Caucasian	347	77.5
Black/African American	32	7.1
Asian American	46	10.3
Native American	7	1.6
Other	16	3.6
Degree		
High School Diploma/GED	100	22.3
Associates Degree	65	14.5
B.A./B.S.	198	44.2
M.A./M.S.	61	13.6
J.D.	4	0.9
Ph.D.	6	1.3
M.D.	8	1.8
Other	6	1.3
Political Affiliation		
Democrat	198	44.2
Republican	114	25.4
Independent	113	25.2
Libertarian	6	1.3
Other	4	0.9
None	10	2.2
Legal profession training/experience		
Yes	25	5.6
No	422	94.2
Mental health profession training/experience		
Yes	28	6.3

No	419	93.5
Previous juror status		
Yes	92	20.5
No	356	79.5
Religious Affiliation		
Atheist	66	14.7
Agnostic	76	17
Spiritual, not religious	31	6.9
No religion in particular	13	2.9
Buddhist	11	2.5
Christian, non-denominational	56	12.5
Baptist	29	6.5
Catholic	89	19.9
Lutheran	11	2.5
Methodist	17	3.8
Pentecostal	11	2.5
Reformed/Presbyterian	7	1.6
Eastern Orthodox	1	0.2
Church of Latter-Day Saints	7	1.6
Hinduism	2	0.4
Islam	7	1.6
Judaism	7	1.6
Prefer not to disclose	7	1.6

Table A2. *Demographic Characteristics by Justice-Involved Person's Race Condition*

Condition	*Black*		*White*		*Hispanic*	
Sample Size	*n = 150*		*n = 149*		*n = 149*	
Respondent characteristic	*M*	*SD*	*M*	*SD*	*M*	*SD*
Age	41.32	12.86	41.5	13.29	40.05	13.04
Respondent characteristic	*N*	%	*N*	%	*N*	%
Gender						
Female	62	41.3	86	57.7	69	46.3
Male	86	57.3	62	41.6	80	53.7
Race/Ethnicity						
White/Caucasian	119	79.3	113	75.8	115	77.2
Black/African American	13	8.7	10	6.7	9	6
Asian American	12	8	17	11.4	17	11.4
Native American	1	0.7	3	2	3	2
Other	5	3.3	6	4	5	3.4
Degree						
High School Diploma/GED	35	23.3	34	22.8	31	20.8
Associates Degree	23	15.3	22	14.8	20	13.4
B.A./B.S.	58	38.7	67	45.0	73	49.0
M.A./M.S.	27	18.0	17	11.4	17	11.4
J.D.	2	1.3	2	1.3	0	0
Ph.D.	1	0.7	4	2.7	1	0.7
M.D.	2	1.3	2	1.3	4	2.7
Other	2	1.3	1	0.7	3	2.0
Political Affiliation						
Democrat	66	44	68	45.6	64	43
Republican	45	30	35	23.5	34	22.8
Independent	34	22.7	38	25.5	41	27.5
Libertarian	0	0	2	1.3	4	2.7
Other	2	1.3	2	1.3	0	0
None	2	1.3	3	2	5	3.4
Missing	1	0.7	1	0.7	1	0.7
Legal profession experience						

Yes	6	4.0	8	5.4	11	7.4
No	144	96.0	141	94.6	137	91.9
Mental health profession experience						
Yes	8	5.3	11	7.4	9	6.0
No	142	94.7	138	92.6	139	93.3
Missing	0	0	0	0	1	0.7
Previous juror status						
Yes	31	20.7	34	22.8	27	18.1
No	119	79.3	115	77.2	122	81.9
Religious Affiliation						
Atheist	21	14	19	12.8	26	17.4
Agnostic	23	15.3	26	17.4	27	18.1
Spiritual, not religious	13	8.7	8	5.4	10	6.7
No religion in particular	3	2	7	4.7	3	2.0
Buddhist	3	2	2	1.3	6	4.0
Christian, non-denominational	27	18	17	11.4	12	8.1
Baptist	10	6.7	10	6.7	9	6.0
Catholic	26	17.3	31	20.8	32	21.5
Lutheran	3	2	6	4.0	2	1.3
Methodist	7	4.7	5	3.4	5	3.4
Pentecostal	2	1.3	7	4.7	2	1.3
Reformed/Presbyterian	3	2	1	0.7	2	1.3
Eastern Orthodox	0	0	1	0.7	0	0
Church of Latter-Day Saints	2	1.3	3	2.0	2	1.3
Hinduism	0	0	1	0.7	1	0.7
Islam	1	0.7	2	1.3	4	2.7
Judaism	2	1.3	2	1.3	3	2.0
Prefer not to disclose	4	2.7	1	0.7	2	1.3

Table A3. *Mean and Standard Deviation of MCSDS and CoBRAS total scores by Race Condition*

Condition	*Black*		*White*		*Hispanic*	
Sample Size	*n = 150*		*n = 149*		*n = 149*	
	M	*SD*	*M*	*SD*	*M*	*SD*
MCSDS Total Scores	18.6	1.96	18.83	1.99	19.06	1.93
CoBras Total Scores	80.6	10.91	80.02	11.38	82.24	12.13

Note. MCSDS = Marlowe Crowne Social Desirability Scale; CoBRAS = Color-Blind Racial Attitudes Scale

Table A4. *Mean and Standard Deviation of Agreement with Risk Findings, MCSDS, and CoBRAS total scores by Risk Condition*

Condition	*Expert Risk*		*Risk*		*No Risk*	
Sample Size	*n = 145*		*n = 153*		*n = 150*	
	M	*SD*	*M*	*SD*	*M*	*SD*
Percent Agreement with Risk Findings	62.04	23.23	58.27	25.15	--	--
MCSDS Total Scores	18.97	1.87	18.7	2.04	18.82	1.98
CoBRAS Total Scores	80.95	11.07	80.8	12.05	81.11	11.4

Note. MCSDS = Marlowe Crowne Social Desirability Scale; CoBRAS = Color-Blind Racial Attitudes Scale

Table A5. *Mean and Standard Deviation of Agreement with Risk Findings, MCSDS, and CoBRAS total scores by Condition*

	Percent Agreement with Risk Findings		MCSDS Total Scores		CoBRAS Total Scores	
Condition	*M*	*SD*	*M*	*SD*	*M*	*SD*
Black x Expert	63.76	23.85	59.76	25.22	6,82	3.46
Black x Risk Information	55.35	25.11	61.46	23.07	6.9	3.3
Black x No Risk	--	--	55.4	23.58	5.46	2.96
White x Expert	61.18	23.60	58.22	22.29	6.48	3.4
White x Risk Information	61.22	24.62	61.22	23.64	6.98	3.06
White x No Risk	--	--	58.33	25.38	6.37	3.25
Latino x Expert	61.10	22.64	63.72	22.84	6.54	3.33
Latino x Risk Information	59.1	25.58	60.46	23.65	6.66	3.19
Latino x No Risk	--	--	60.35	22.98	6.89	3.73

Note. MCSDS = Marlowe Crowne Social Desirability Scale; CoBRAS = Color-Blind Racial Attitudes Scale

Table A6. *Pearson Correlations among Condition, Risk Agreement, Category of Risk, Placement Decisions, Treatment Decisions, and CoBRAS total scores*

	Condition	*Risk Agreement*	*Category of Risk*	*Placement Decision*	*Treatment Decision*
Risk Agreement	.278**	--			
Category of Risk	-.034	-.332**	--		
Placement Decision	-.029	.058	-.393**	--	
Treatment Decision	.052	.027	-.244**	.105	--
CoBRAS Total Score	.057	.014	.125**	-.070	.045

Table A7. *Distribution of Categorical Risk Selection across conditions*

Condition	***Risk Category***	***N***	***%***
Black x Expert Risk	Low Risk	3	6.0
	Low-Moderate Risk	19	38.0
	Moderate Risk	25	50.0
	Moderate-High Risk	3	6.0
	High Risk	0	0
Black x Risk Information	Low Risk	10	19.2
	Low-Moderate Risk	18	34.6
	Moderate Risk	20	38.5
	Moderate-High Risk	4	7.7
	High Risk	0	0
Black x No Risk	Low Risk	25	52.1
	Low-Moderate Risk	18	37.5
	Moderate Risk	4	8.3
	Moderate-High Risk	1	2.1
	High Risk	0	0
White x Expert Risk	Low Risk	3	6.7
	Low-Moderate Risk	15	33.3
	Moderate Risk	26	57.8
	Moderate-High Risk	1	2.2
	High Risk	0	0
White x Risk Information	Low Risk	8	15.7
	Low-Moderate Risk	14	27.5
	Moderate Risk	25	49.0
	Moderate-High Risk	4	7.8
	High Risk	0	0
White x No Risk	Low Risk	16	30.2
	Low-Moderate Risk	16	30.2
	Moderate Risk	16	30.2
	Moderate-High Risk	5	9.4
	High Risk	0	0
Latino x Expert Risk	Low Risk	4	8.0
	Low-Moderate Risk	17	34.0

	Moderate Risk	24	48.0
	Moderate-High Risk	5	10.0
	High Risk	0	0
Latino x Risk Information	Low Risk	5	10.0
	Low-Moderate Risk	14	28.0
	Moderate Risk	26	52.0
	Moderate-High Risk	5	10.0
	High Risk	0	0
Latino x No Risk	Low Risk	24	49.0
	Low-Moderate Risk	15	30.6
	Moderate Risk	7	14.3
	Moderate-High Risk	3	6.1
	High Risk	0	0

APPENDIX B –IRB APPROVAL LETTER

Sunday, September 18, 2022 at 13:46:08 Eastern Daylight Time

Subject: IRB-21-48 - Initial: Sacco Committee Letter - Expedited and Full
Date: Thursday, February 25, 2021 at 8:57:39 AM Eastern Standard Time
From: irb@usm.edu
To: Eric Dahlen, Riley Davis, Sue Fayard, Michael Howell, Jonathan Snyder
Attachments: ATT00001.png, ATT00002.png

Office *of*
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- Face-to-Face data collection may not commence without prior approval from the Vice President for Research's Office.

PROTOCOL NUMBER: IRB-21-48
PROJECT TITLE: Race, risk, and confinement: An examination of offender race on post-conviction placement and mandated treatment decisions within the context of an actuarial violence risk assessment
SCHOOL/PROGRAM: School of Psychology, Psychology
RESEARCHER(S): Riley Davis, Eric Dahlen

IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited
7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: February 24, 2021

Donald Sacco Jr.

Donald Sacco, Ph.D.

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APPENDIX C – ELECTRONIC INFORMED CONSENT

ELECTRONIC INFORMED CONSENT

To participate in this survey, you must be:

- 18 years of age or older
- U.S. Citizen
- No felony convictions or pending charges
- Fluent in English

The following information pertains to your participation in this study:

Purpose:
Thank you for participating in this survey! The hope of this study is to learn more about the decision-making process of laypeople based on violence risk assessment outcomes.

Description of Study:
You will be asked to examine one photo of an individual, read a background vignette on that individual, as well as read an excerpt from a psychological report and the risk opinion [when provided] derived from that report. You will then be asked to answer several questions about your perceptions of the offender in question. You will also be asked basic demographic information about yourself, none of which will be identifying. Your participation is expected to take approximately 10 minutes.

Risks:
There are no anticipated risks of participating in this study beyond those associated with everyday life.

Benefits:
Upon completion of this study, you will receive $1.25 to your MTurk account. There are no other anticipated personal benefits to you by participating in this study.

Confidentiality:
There will be no identifying information asked during the survey or connected to your responses.

Alternative Procedures:
Your participation in this study is voluntary and you may withdraw at any time. However, failure to select specified answer choices on items that assess attentiveness will result in immediate termination from the study, with no compensation provided. Further, to earn compensation, you must answer 75% or more of the questions and pass the validity checks.

Participants' Assurance:

This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-5997.

Any questions about this research project should be directed to the Principal Investigator, Riley Davis, M.A. at riley.davis@usm.edu.

CONSENT TO PARTICIPATE IN RESEARCH

I understand that participation in this project is completely voluntary, and I may withdraw at any time without penalty, prejudice, or loss of benefits. Unless described above, all personal information will be kept strictly confidential, including name and other identifying information. All procedures to be followed and their purposes were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected. Any new information that develops during the project will be provided to me if that information may affect my willingness to continue participation in the project.

APPENDIX D – BACKGROUND VIGNETTES

Background Vignette for the Expert Risk Assessment Testimony and Risk Assessment Testimony conditions:

Case Overview: Mr. Doe is a 35-year-old [Black; Latino; White] male convicted of Possession of a Controlled Substance (Schedule I) and Possession with Intent to Distribute (marijuana) and is awaiting sentencing. To assist in this decision, the judge ordered Mr. Doe to undergo an evaluation of his risk level and to determine his service needs.

Background: Mr. Doe was raised in a small town by his mother and grandmother, with little involvement with his biological father. Mr. Doe graduated high school and was enrolled in regular track classes. Mr. Doe has no prior juvenile offenses. Mr. Doe reported being frequently unemployed and that he has difficulty maintaining employment. He is currently married but is going through the process of a divorce. Mr. Doe has a previous conviction of Possession of a Controlled Substance (marijuana) for which he was on probation. He also previously received substance abuse treatment at a local community mental health center.

Testing Environment and Behavioral Observations: For this evaluation, Mr. Doe was examined in a private room at the county jail where he has been detained since his conviction. He was compliant and cooperative throughout the evaluation. He was alert and oriented to person, place, time, and situation. His thought processes were goal-directed and consistently appropriate to topics of conversation. Mr. Doe's intellectual functioning was estimated to be in the average range, and he evidenced no cognitive deficits during the interview.

Background Vignette for the No Risk Assessment Testimony condition:

Case Overview: Mr. Doe is a 35-year-old [Black; Latino; White] male convicted of Possession of a Controlled Substance (Schedule I) and Possession with Intent to Distribute (marijuana) and is awaiting sentencing.

Background: Mr. Doe was raised in a small town by his mother and grandmother, with little involvement with his biological father. Mr. Doe graduated high school and was enrolled in regular track classes. Mr. Doe has no prior juvenile offenses. Mr. Doe reported being frequently unemployed and that he has difficulty maintaining employment. He is currently married but is going through the process of a divorce. Mr. Doe has a previous conviction of Possession of a Controlled Substance (marijuana) for which he was on probation. He also previously received substance abuse treatment at a local community mental health center.

APPENDIX E – RISK ASSESSMENT TESTIMONY VIGNETTES

Expert Risk Assessment Testimony Condition:
The following is an excerpt from testimony provided by a licensed psychologist with specialized training in risk assessment. Testimony was delivered during a hearing to determine Mr. Doe's placement and the conditions of his sentence.

As part of my evaluation, Mr. Doe was rated on the Level of Services Inventory – Revised (LSI-R), a tool used to survey attributes of offenders and their situations relevant to decisions regarding level of risk and service needs. This instrument is frequently used to assist in the allocation of resources, helping to make probation and placement decisions, making appropriate security level classifications, and assessing treatment progress. It has additionally been shown to help predict parole outcomes, success in correctional halfway houses, institutional misconduct and recidivism.

Scores on the LSI-R are derived by checking off the presence (or absence) of 54 items based on legal requirements and relevant risk factors for making both treatment decisions and risk level.[1] Generally speaking, the more risk factors an offender has, the higher his level of risk will be.

Mr. Doe's total score on the LSI-R was 28 (on a scale from 0 – 54), which places him in the "Moderate" risk level range.

Risk Assessment Testimony Condition (no identified expert):
The following information was used to determine Mr. Doe's placement and the conditions of his sentence.

Mr. Doe was rated on the Level of Services Inventory – Revised (LSI-R), a tool used to survey attributes of offenders and their situations relevant to decisions regarding level of risk and service needs. This instrument is frequently used to assist in the allocation of resources, helping to make probation and placement decisions, making appropriate security level classifications, and assessing treatment progress. It has additionally been shown to help predict parole outcomes, success in correctional halfway houses, institutional misconduct and recidivism.

Scores on the LSI-R are derived by checking off the presence (or absence) of 54 items based on legal requirements and relevant risk factors for making both treatment decisions and risk level.[1] Generally speaking, the more risk factors an offender has, the higher his level of risk will be.

Mr. Doe's total score on the LSI-R was 28 (on a scale from 0 – 54), which places him in the "Moderate" risk level range.

No Risk Assessment Testimony Condition:
Not applicable; participants randomly assigned to this condition were not exposed to data from the LSI-R.

APPENDIX F – PHOTO STIMULI

Black

Latino

White

Stimuli Norming Data					
Race Ethnicity Condition	Ratings of Age	Race/Ethnicity Probability (condition race/ethnicity)	Attractiveness	Masculinity	Dominance
Black	34.54	0.988	3.29	5.23	3.30
Latino	34.62	0.518	3.29	5.41	3.37
White	35.13	1	3.2	5.36	3.5

APPENDIX G – QUALTRICS SURVEY ITEMS

Eligibility Criteria Items

1. Are you at least 18 years of age?
    a. Yes
    b. No

2. Are you a citizen of the United States?
    a. Yes
    b. No

3. Are you fluent in English?
    a. Yes
    b. No

4. Do you have previous felony charges/convictions?
    a. Yes
    b. No

5. Do you have pending felony charges/convictions?
    a. Yes
    b. No

Experimenter Derived Questions

1. To what extent (on a scale from 0 – 100) do you agree with the risk assessment findings? *

    **This question will be omitted from the no risk assessment results condition*

2. What category of risk do you believe Mr. Doe to fall into?
    a. Low Risk
    b. Low – Moderate Risk
    c. Moderate Risk
    d. Moderate – High Risk
    e. High Risk

3. Do you think Mr. Doe should be incarcerated (i.e., in jail or prison) for the duration of his sentence or should he serve his sentence on community supervision (i.e., probation)?
    a. Incarcerated
    b. Community supervision

4. Do you believe Mr. Doe should be mandated to attend mental health treatment?

a. Yes
b. No

Validity Check Items

1. A captcha verification tool was used at the beginning of the survey to filter out bots.

2. Participants were asked to listen to a recording of the word "apple" and then write the word that they heard.

3. What crime was Mr. Doe convicted of in the present case?
    a. Shoplifting
    b. Manslaughter
    c. Driving Under the Influence of a Controlled Substance
    d. Possession of a Controlled Substance and Possession with Intent to Distribute

4. Which of the following BEST describes Mr. Doe?
    a. A 40-year-old Asian male
    b. A 31-year-old with a history of psychiatric hospitalizations
    c. A 17-year-old who has spent time in a juvenile detention center for selling drugs
    d. A 35-year-old Black [White; Latino] male

5. An attentional check item (select "3") was inserted into the Color Blind Racial Attitudes Scale.

Marlowe Crown Social Desirability Scale – Reynolds Short Form C

Read each item and decide whether is it true (T) or false (F) for you. Try to work rapidly and answer each question by clicking on the T or the F.

1. It is sometimes hard for me to go on with my work if I am not encouraged.

2. I sometimes feel resentful when I don't get my way.

3. On a few occasions, I have given up something because I thought too little of my ability.

4. There have been times when I felt like rebelling against people in authority even though I knew they were right.

5. No matter who I'm talking to, I'm always a good listener.

6. There have been occasions when I have taken advantage of someone.
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others.
12. I am sometimes irritated by people who ask favors of me.
13. I have never deliberately said something that hurt someone's feelings.

Color Blind Racial Attitudes Scale

Directions. Below is a set of questions that deal with social issues in the United States (U.S.). Using the 6-point scale, please give your honest rating about the degree to which you personally agree or disagree with each statement. Please be as open and honest as you can; there are no right or wrong answers. Record your response to the right of each item.

1 (Strongly Disagree) to 6 (Strongly Agree)

1. White people in the U.S. have certain advantages because of the color of their skin
2. Race is very important in determining who is successful and who is not
3. Race plays an important role in who gets sent to prison
4. Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.
5. Racial and ethnic minorities do not have the same opportunities as White people in the U.S.
6. Everyone who works hard, no matter what race they are, has an equal chance to become rich
7. White people are more to blame for racial discrimination than racial and ethnic minorities

8. Social policies, such as affirmative action, discriminate unfairly against White people
9. White people in the U.S. are discriminated against because of the color of their skin
10. English should be the only official language in the U.S.
11. Due to racial discrimination, programs such as affirmative action are necessary to help create equality
12. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin
13. It is important that people begin to think of themselves as American and not African American, Mexican American, or Italian American
14. Immigrants should try to fit into the culture and values of the U.S.
15. Racial problems in the U.S. are rare, isolated situations
16. Talking about racial issues causes unnecessary tension
17. Racism is a major problem in the U.S.
18. It is important for public schools to teach about the history and contributions of racial and ethnic minorities
19. It is important for political leaders to talk about racism to help work through or solve society's problems
20. Racism may have been a problem in the past, it is not an important problem today

Demographic Questionnaire

1. What is your age?

2. What is your gender?
    a. Male
    b. Female
    c. Transgender
    d. Other

3. Which race/ethnicity do you most identify with?
    a. African American or Black
    b. Asian American
    c. European American/Caucasian

d. Native American
e. Pacific Islander
f. Other (please specify)

4. What is the highest educational degree you've obtained?
    a. Not applicable - No degree earned
    b. High school diploma or equivalent
    c. Associate's degree
    d. Bachelor's degree
    e. Master's degree
    f. J.D.
    g. M.D.
    h. Ph.D.
    i. Other (please specify)

5. What is your political affiliation?
    a. Democrat
    b. Republican
    c. Independent
    d. Libertarian
    e. Other
    f. None

6. Regarding my religious affiliation, I most identify as_____
    a. Atheist
    b. Agnostic
    c. Spiritual, not religious
    d. No religion in particular
    e. Buddhist
    f. Christian (nondenominational)
    g. Christian (Anglican)
    h. Christian (Baptist)
    i. Christian (Catholic)
    j. Christian (Lutheran)
    k. Christian (Methodist)
    l. Christian (Pentecostal)
    m. Christian (Reformed/Presbyterian)
    n. Christian (Eastern Orthodox)
    o. Christian (Church of Latter-Day Saints or Mormon)
    p. Hinduism
    q. Islam
    r. Judaism
    s. Sikhism
    t. Prefer not to disclose

7. Do you have training or experience in a legal profession?
    a. Yes
    b. No

8. Have you ever served as a member of a jury before?
    a. Yes
    b. No

9. Do you have training or experience in a mental health profession?
    a. Yes
    b. No

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