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The Effects Of Explicit And Implicit Racial Bias On Evaluations Of Individuals Involved With The Criminal Justice System

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The Effects of Explicit and Implicit Racial Bias on Evaluations of Individuals Involved
with the Criminal Justice System

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APPROVAL PAGE

This Thesis is submitted in partial fulfillment of
the requirements for the degree of

Master of Science

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ABSTRACT

A racialization of crime exists in American society with Black men in particular being associated with crime. The purpose of this research was to examine whether perceptions of criminal sentencing decisions and perceptions of male criminal offenders would vary as a function of race and are associated with explicit and implicit racial bias. Four studies were conducted utilizing a within-subjects design in which participants viewed fictitious case records for Black and White criminal offenders and completed measures of bias and perceptions of the sentencing decision and the offenders themselves. Two studies included samples of White American adults ($n = 113$ and 111) obtained through online paid research participation systems and two more were conducted with samples of undergraduate participants ($n = 111$ and 150). The first set of studies examined this in the context of individuals accused of drug crimes with both an adult and undergraduate sample and the second set examined this in the context of violent crimes also with both an adult and undergraduate sample. For the adult samples, perceptions did not differ as a function of race but individual differences in explicit and implicit racial biases were significantly associated with negative evaluations and harsher sentencing for the Black target. For the student samples, perceptions significantly differed as a function of race in favor of the Black target, while individual differences in explicit biases were consistent with those of the adult samples. This work can add to our understanding of the factors that can impact the decisions made about accused offenders of color as they progress through the criminal justice system in America.

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The Effects of Explicit and Implicit Racial Bias on Evaluations of Individuals Involved with the Criminal Justice System

Racially discriminant media exposure and policy decisions continue to impact Black individuals in the United States (U.S.). Racial disparities between Black and White individuals are especially prevalent in the judicial system. For instance, in 2019, although Black Americans made up 13.4% of the U.S. population (U.S. Census Bureau, 2020), Black Americans made up 26.1% of those arrested for drug abuse crimes and 33.2% of those arrested for the violent crime of aggravated assault (Federal Bureau of Investigation [FBI], 2020)¹. In contrast, White Americans made up 76.3% of the population but 71.2% of those arrested for drug abuse crimes and 61.8% of those arrested for the violent crime of aggravated assault (FBI, 2020). Considering these rates in juxtaposition to population percentages, Black Americans were arrested at rates up to two-and-a-half times above their representation in the population, while their White counterparts were arrested at rates below their representation.

These disparities are also prevalent in sentencing decisions once individuals are convicted of crimes. For example, when controlling for social context and legal factors, Black individuals receive longer sentences compared to White individuals convicted of the same drug-related crimes (Lum et al., 2014). Sentencing disparities are also evident for Black individuals accused and convicted of more violent crimes such as assault or homicide (Atkin-Plunk, 2020; Eberhardt et al., 2006; Peffley & Hurwitz, 2007). These trends then continue in disparate plea bargaining or trial convictions, leading to racially disparate incarceration rates (Hetey & Eberhardt, 2014; Lum et al., 2014; Metcalfe & Chiricios, 2017). Research conducted throughout multiple disciplines has worked to examine what factors are likely contributing to the persistence of such discriminatory processes and outcomes.

Stereotyping and Criminality

¹ The results of the Uniform Crime Report (UCR) are compiled by the Federal Bureau of Investigation (FBI) based on the voluntary participation or submission of crime data from law enforcement agencies across the U.S. to calculate reliable statistics of crime in America (FBI, 2020).

The stereotype of criminality associated with Black individuals has been extensively documented and investigated in psychological literature. Research from Eberhardt et al. (2004) examined the directional relationship between crime and Blacks through a series of five studies. This was tested in three of the five studies by priming participants with Black male faces, crime-relevant stimuli, and concepts associated with Blacks. Participants were quicker to respond to Black male faces when they were presented with varying degrees of degraded images of crime-relevant stimuli. Additional research from Payne (2001) demonstrated that participants were quicker to identify guns and more likely to misperceive a weapon when primed with Black faces compared to White. This research indicates that crime stimuli that are race-neutral can trigger images of Blacks as well as prime individuals to attend to Black male faces; thus, Black males are seen as a “prototype” for crime (Eberhardt et al., 2004; Payne, 2001). In the final two studies, Eberhardt et al. (2004) further demonstrated that this bidirectional association was evident with a sample of police officer participants who responded more quickly to Black male faces in response to crime concepts and in evaluations of criminality for faces that were more stereotypically Black. This stereotypicality is recognized through Afrocentric facial features as being more or less “Black,” which has been demonstrated to influence judgements of Black individuals and activated stereotypical associations of criminality (Blair et al., 2004a; Blair et al., 2004b; Eberhardt et al., 2004; Eberhardt et al., 2006; Levinson et al., 2010).

These biased perceptions can often be reinforced by individuals’ tendency to attend to stereotype confirming information. For example, Gilliam and Iyengar (2000) suggest that because of a strong heuristic expectation individuals possess when viewing or learning about crime, individuals can infer additional details of the crime that were not presented which are consistent with their biases. This is further perpetuated by crime coverage by the media that follows a distinct narrative in which crime is violent and is identified by the race of the perpetrator, the majority of which reported upon are Black individuals (Gilliam & Iyengar, 2000). When presented with news stories about murder, participants

falsely recall information about a perpetrator when there is none, and falsely recall perpetrators as Black (Gilliam & Iyengar, 2000). Thus, due in part to distorted portrayal in the media, Blacks are often perceived as more violent, impulsive, and menacing than Whites (Chiricos et al., 2004; Najdowski et al., 2015). These stereotypes lead to significant consequences for Black individuals who come into contact with the criminal justice system.

In archival studies of real-world sentencing, Black defendants receive significantly longer sentences than Whites, even when controlling for the seriousness of a crime (Mitchell et al., 2005). The criminal charges an individual is processed under are at the discretion of the prosecutorial lawyer or team, which goes largely unchecked compared to judicial discretion that is more stringently restrained (Metcalfe & Chiricos, 2017). Criminality stereotypes affect how likely prosecutorial actors are to attribute judicial focal concerns of threat, “deserving” of punishment, and the likelihood of recidivism based on the characteristics of a Black defendant (Metcalfe & Chiricos, 2017). These prosecutorial decisions occur at one of the most pivotal points in the judicial process and are highly susceptible to biased associations. This is due to the vague definitions of judicial focal concerns that criminal charges rest on. These have further been theorized to be influential at the intersection of a defendant’s race and sex (Metcalfe & Chiricos, 2017).

Criminality stereotypes have also impacted Black individuals arrested and incarcerated for low-level drug crimes. This is evident through the opioid epidemic currently facing the U.S. and a continuation from what was perpetuated by the War on Drugs (1980s – 1990s). In both drug epidemics, expensive versions of the drug (i.e., opiates/prescription pills and cocaine) were associated with Whites while cheaper versions of the same drug (i.e., heroin and crack) were associated with Blacks (Hansen & Netherland, 2016; Hendricks & Wilson, 2013). Correspondingly, Black individuals were arrested at disproportionate rates compared to Whites, even though the estimated rate of drug use is proportionally equal between racial groups (Carson & Anderson, 2018; Cicero et al., 2014). In addition to

these rates, the crimes associated with each type of drug (expensive vs. cheap) yield different sanctions such as restorative justice practices, alternatives in the community, health resources and treatment, or imprisonment sentences of varying time lengths (Netherland & Hansen, 2016). These sanctions tend to benefit Whites compared to Blacks in terms of lower rates of imprisonment, support of diversion from incarceration by social workers, and access to vital medical attention or treatment (Netherland & Hansen, 2016).

The influence of criminality stereotypes is also evident when considering more violent crimes, such as assault, domestic abuse, sexual abuse, or homicide. Exonerations for crime serve as one of the only indications for wrongful convictions. The evidence from exoneration rates indicates that Black individuals are more likely to be convicted for homicide by approximately seven times more than Whites; moreover, this means that approximately 50% of Black individuals who are convicted of murder are more likely to be innocent than other convicted individuals (Gross et al., 2017). For these exonerations, it was determined that racial discrimination (individual and institutional) and racial bias affected the initial wrongful convictions, including racially discriminant police misconduct (Gross et al., 2017). Additionally, Black males convicted of sexual assault are more likely to be innocent by three-and-a-half times compared to White individuals convicted for the same crime (Gross et al., 2017). The overrepresentation of Black males convicted of sexual assault has been documented to be impacted by misidentifications in eyewitness reports, particularly when the victim was identified as a White female (Gross et al., 2017). The racial typification of Blacks as violent criminals is associated with overestimations of criminal offending, perceptions of violent threat, and criminal conviction disparities (King & Wheelock, 2007; Mancini et al., 2015; Mitchell et al., 2005; Peffley & Hurwitz, 2007).

Racial Bias and Prejudice

Learned stereotypes, such as criminality, contribute to the prejudicial attitudes or beliefs that individuals can harbor towards racial minorities. Prejudicial attitudes have been consistently

demonstrated to be predicted by constructs of racial bias. As such, racial bias can be differentiated between the constructs of explicit and implicit biases, which can predict different types of downstream perceptions and behaviors (Forscher, Lai, et al., 2019). These constructs can coexist for an individual but are differentiated in the way that they are processed and how they affect behavior. Explicit racial biases are the conscious and prejudicial beliefs an individual knowingly harbors about individuals of another race (Brigham, 1993). These beliefs are accessed through the deliberate retrieval of target associations (Forscher, Lai, et al., 2019; Greenwald et al., 1998). Implicit racial biases, however, are subconscious associations that an individual unknowingly attributes to members of the race that their existing attitudes concern (Greenwald & Banaji, 1995). Explicit biases can be considered “deliberate mental processes which are relatively slow, inefficient, controllable, and intentional” while implicit biases are considered to be “automatic mental processes which are relatively fast, efficient, uncontrollable, and unintentional” (Forscher, Lai, et al., 2019, p. 3).

The correlations between measures of explicit and implicit biases can vary, depending on social desirability, rumination of the subject being tested, the polarity of concepts (or not), and how much an individual identifies their opinions to be distinct from others (Forscher, Lai, et al., 2019; Nosek, 2007). However, it is clear that when explicit and implicit biases demonstrate strong correlations with each other, they are discrete constructs and predict different forms of behavior (Forscher, Lai, et al., 2019). Past research has demonstrated that individuals may hold egalitarian views and express very little explicit bias but due to socialization processes, are still likely to hold implicit biases and act upon them in more ambiguous situations where automatic processes are relied on to respond (Dovidio et al., 2001). An individual’s level of explicit bias is a predictor for how prejudiced they are towards one group, but may not entirely correspond with the level of implicit bias that same person has (Forscher, Lai, et al., 2019). For example, research by Dovidio et al. (2002) showed explicit racial bias significantly predicted how verbally friendly White participants were to a Black student confederate in the study, but did not

significantly predict their nonverbal behavior. However, the measure of implicit racial bias was significantly predictive of participants' nonverbal behavior (friendliness) toward the Black student confederate and did not significantly predict their verbal behavior (Dovidio et al., 2002). Thus, behaviors towards and judgements about members of racial groups can be differentially predicted by explicit and implicit bias.

The Current Research

In American society, the racialization of crime has led to Black males being depicted as a prototype for crime (Eberhardt et al., 2004). Biased perceptions impact the likelihood of arrest and policing decisions (Mancini et al., 2015), the type of criminal charge and plea bargaining or jury decisions they face (Metcalfe & Chiricos, 2017; Mitchell et al., 2005), and ultimately incarceration (Hetey & Eberhardt, 2014; Lum et al., 2014). There is significant potential for racial biases to interfere with the execution of equitable jurisprudence within the criminal justice system since it is operated by human actors (police, lawyers, judges, jurors, witnesses, etc.) who are susceptible to such influences (Bassett, 2013; Mitchell et al., 2005). Accused individuals are confronted with the effects of racially biased encounters in the criminal justice system, which magnify at each stage of the system, resulting in a cumulative disadvantage (Metcalfe & Chiricos, 2017). In the literature discussed, many have directly studied differences in our variables of interest: perceptions of target individuals arrested and convicted of crimes, racial bias, and the level of punitiveness people endorse. The literature has also considered the predictive reliability of prejudice for perceptions of criminality and differences in perceptions based on race. However, few have directly considered these relationships in comparing different levels of crime with a consistent study design and analysis.

The purpose of this research was to examine whether evaluations of individuals in the criminal justice system would vary by race and whether these perceptions were influenced by explicit and implicit racial bias. Past research has examined the general public's attitudes toward punitive policies

focusing on determinations of criminal guilt, sentencing decisions or sanctions, and death penalties for criminal convictions. Mitchell and colleagues (2005) concluded past meta-analyses of mock-juror studies examining the racially disparate determination of guilt and sentencing decisions were somewhat inconclusive, with effect sizes ranging from $d = .01$ to $.17$. However, analyses of previous studies indicated that the effect sizes for racial disparities in verdict decisions of guilt appeared robust and to be generalizable, while sentencing decisions require further inquiry (Mitchell et al., 2005). In addition to examining racial differences in guilt and sentencing decisions of individuals from different racial backgrounds, research has also examined whether these decisions can be predicted by racial bias. These studies have indicated that greater explicit racial bias is associated with the endorsement of more punitive policies and death sentencing, rather than average or lenient policies (Chiricos et al., 2004; Eberhardt et al., 2006; Peffley & Hurwitz, 2007; Pickett et al., 2015).

Four studies were conducted to examine perceptions of criminality and racial bias through both nationally representative White adult samples and undergraduate samples. In a within-subjects design, participants viewed fictitious electronic case records for target individuals varying by race (White, Black, multiracial), completed an implicit attitude measure associating guilt with White and Black individuals (Guilt Implicit Association Test [IAT]; Levinson et al., 2010), and completed a measure of explicit racial bias (Attitudes Towards Blacks scale [ATB]; Brigham, 1993). We wanted to examine these research questions with two different types of criminal charges, a low-level crime with a drug charge (Studies 1 and 2) and a high-level crime with a violent assault charge (Studies 3 and 4), both crimes that have shown nationwide, pervasive racial disparities in arrest rate and sentencing. We hypothesized that the perceptions would be different based on the race of the target individual, such that Black targets would be rated less positively and sentencing decisions as more lenient, in comparison to the White targets. We further hypothesized that the perceptions of the Black individual would be predicted by explicit

racial bias for direct stereotypical characteristics and by implicit racial bias for more ambiguous or subtle stereotypical characteristics and sentencing decisions.

Study One

For our first study, we started by examining perceptions of individuals accused of drug crimes with a nationally representative sample of White Americans, the majority group in the U.S. This sample was compensated for their participation through an online research participation system, Qualtrics XM. Online research systems like this or Amazon's Mechanical Turk (MTurk) offer more demographically diverse participant pools than typical online samples or American college student samples (Buhrmester et al., 2011). The demographic diversity of online samples allows access to individuals that experience different levels of socioeconomic status, education, age and more in addition to racial identities. Alpha reliabilities fall within good to excellent ranges for survey materials in online research systems, compared to psychometric standards for published research conducted in typical environments (Buhrmester et al., 2011).

Method

Participants

White participants ($N = 133$) were recruited from an online research participation system, Qualtrics XM. Participants who elected to participate in the study were compensated \$5.00 (USD). The four major regions of the U.S. were represented in the sample by at least two states, also represented was Hawaii but not Alaska. Participants were excluded from analyses ($n = 20$) if they missed more than two attention checks and did not pass manipulation checks for the White or Black targets. Attention checks were spread throughout the survey while manipulation checks were specific to the race and the crime associated with each target individual's case record. Participants were also removed for analyses including the IAT if their percent accuracy was below three standard deviations from the sample mean ($M = 93.78$, $SD = 7.10$, $n = 4$), indicating inattentiveness. Materials and procedures were approved by the

researchers' university Protection of Human Subjects Committee. All participants electronically signed an informed consent form before beginning the survey.

Materials

Electronic Case Record. The U.S. judicial system requires that criminal and civil court litigations be publicly available, with certain exceptions set by court precedence and Constitutional guidelines. As such, the format and type of information included in the electronic case records created for this study were modeled after publicly available criminal case records from the District Court of Maryland. The state of Maryland was chosen as the model and setting for the records because it is one of the most demographically diverse states in the U.S. but not a highly publicized state such as New York or California (McCann, 2020). Relevant information was fictional such as name, race, address, etc. However, criminal charges and sanctions reflected legitimate Maryland law associated with the possession of a narcotic (20 years incarceration and a \$25,000 fine). Three electronic case records were created: a White individual, a Black individual, and a multiracial individual (serving as the control case record). The profiles for these fictional targets were all similar in age, stature, and were all a part of the District Court of Maryland.

The experimental case records for targets identified stereotypical White or Black names (e.g. Connor Williams and Tyrone Davidson, respectively), their corresponding racial identity, and were charged with possession of a narcotic (CDS: POSS-HEROIN). The control case record had a race-neutral name (e.g. Michael Jones), was identified as multiracial and charged with non-violent robbery (CDS: NONVIOL-ROBBERY; sanctioned with 5 years incarceration and \$10,000 fine). These details were different from the experimental records so that the online delivery of the study could allow for a "practice" record to be viewed by all participants. It was expected that showing the same first record to each participant would allow them to adjust to the presentation of the record and reduce inattentiveness for the two experimental records that followed, at random order. All case records

denoted that the individual pleaded "*Nolle Prosequi*" (meaning neither guilty nor not guilty) at their disposition date. Additional non-relevant case details were identical between records. See Appendix A.

Evaluations of the Target Individual. Following each of the case records, participants were asked to respond to a series of questions regarding the record they just viewed. These questions consisted of both manipulation checks for recall of case information and questions regarding participants' perceptions of the target. Manipulation check questions were multiple choice: "Select the defendant's race" and "What crime was the defendant charged with?" Participants were asked to rate characteristics of the target on a scale from one to seven (1=*not at all* to 7=*extremely*), for positive and negative traits such as "boring, friendly, impulsive, reliable, immoral, menacing, violent, trustworthy." They were also asked to rate their level of agreement (1=*strongly disagree* to 7=*strongly agree*), with statements concerning health resources or incarceration. For example, statements included "This person should have access to health resources" or "This person deserves to be incarcerated over being given access to health services." They were also asked to indicate their preference for incarceration or allocating health care resources as a solution for individuals who use drugs through statements such as "In your opinion, do drug users who committed a crime deserve health treatment over incarceration" to which they answered with "yes," "not sure," or "no."

Attitudes Toward Blacks Scale (ATB; Brigham 1993). The ATB Scale is a measure of explicit racial bias toward Blacks that relates to various content areas and social issues. The scale consists of 20 items with Likert scale responses (1 = *strongly disagree* to 7 = *strongly agree*) and demonstrates reliability (Cronbach's $\alpha = .88$). Lower scores on the ATB are indicative of more explicit racial bias against Blacks, while higher scores indicate less explicit bias. However, for discussion purposes we took the inverse polarity of results so that conclusions would be more intuitive (i.e., more explicit racial bias would be indicated by a higher score and less explicit racial bias by a lower score). Participants are evaluated on their agreement with statements such as, "When I see an interracial couple I feel that they are making a

mistake in dating each other” or “I favor open housing laws that allow more racial integration of neighborhoods.” There are nine questions on the ATB that are reverse coded, such as “I enjoy a funny racial joke, even if some people might find it offensive” or “It is likely that Blacks will bring violence to neighborhoods when they move in.”

Guilt Implicit Association Test (IAT). The IAT version used in our studies is similar to the race IAT used in most studies examining implicit racial bias (Greenwald et al., 1998) but was adapted by Levinson et al. (2010) to include guilty and not guilty words instead of the typically used “good” and “bad” words. In developing the guilt IAT, the researchers demonstrated that their results were unique and distinct from the race IAT because they were not significantly correlated with each other ($r = -.07, p = 0.51$) (Levinson et al., 2010). The IAT is a reaction time task in which participants classify words into superordinate categories in various blocks. Captured images of the guilt IAT screen presentation are included in Appendix B. In the first block, participants categorized six different pictures of White faces with not guilty words (i.e., acquitted, blameless, cleared of charges, didn’t do it, did not commit crime, wrongfully accused, guilt free, innocent) with a single response key, and they also categorized six different pictures of Black faces with guilty words (i.e., at fault, caught in the act, committed crime, criminal, convict, did it, perpetrator, responsible for crime) by using another response key. All stimulus words appeared in the middle of the screen with the category words presented in the top right and top left portions of the screen.

As specified by Greenwald et al. (1998), the first two blocks consisted of 20 trials each, with participants categorizing White and Black faces (including both male and female) with one response key on a keyboard, and “not guilty” and “guilty” words with another key. In Blocks 3 and 4, participants grouped all words into one of two categories, using a response key designated for each: half of the participants were randomly assigned to have “not guilty/White” and “guilty/Black” as the two response options and half were randomly assigned to have “guilty/White” and “not guilty/Black” as the response

options. Block 3 had 20 trials and Block 4 had 40 trials. In Block 5, the response keys for “guilty” and “not guilty” changed and participants completed 40 trials with this new association. Two final blocks had participants group all words into the other pairing of categories; Block 6 had 20 trials and Block 7 had 40 trials. For each trial, the words appeared until participants responded. If they responded incorrectly, a green “X” appeared on the screen until they made the correct response. After participants made a correct response, there was a 250 ms inter-trial interval. We counterbalanced the first presentation of the “guilty/White” or “not guilty/White” blocks. Higher scores indicate hypothesis consistent demonstrations, thus more implicit racial bias concerning stereotypes of guilt and criminality. Scores close to zero indicate no implicit preference and negative scores indicate hypothesis inconsistent demonstrations, thus less implicit racial bias for stereotypes of guilt and criminality. The exact timing, procedure, and scoring of the IAT are further discussed in Greenwald et al. (1998) and Greenwald et al. (2003).

White Guilt (Swim & Miller, 1999). The White guilt scale consists of five items that are on a Likert scale from one to seven (1=*strongly disagree* to 7=*strongly agree*) with one item that is reverse scored. Items on this scale include statements such as, “I feel guilty about the past and present social inequality of Black Americans (i.e., slavery, poverty)” and “When I learn about racism, I feel guilt due to my association with the White race.” Average group responses to this scale are typically low or below the neutral point on the scale but the range and variability demonstrated in samples indicates the existence of feelings of guilt for individuals in that sample (Cronbach’s $\alpha = .87$).

Group Identification Scale (Doosje et al., 1995). In the development of the scale, a sample of psychology students was used and items statements used “psychology students” as the subject to assess the level of group identification relative to intergroup variability and status (Doosje et al., 1995). The measure demonstrated reliability (Cronbach’s $\alpha = .83$) and was developed with the expectation to be adapted for use with other groups as the identifier for any particular study (Doosje et al., 1995). In the

current study, White identity was measured using this scale and placing Whites as the subject of each of the four items. These items were rated on a Likert scale from one to nine (1=*not at all* to 9=*very much*). Statements for the scale are asked “I see myself as a member of the White race” and “I feel strong ties with other White people.”

Psychosocial Cost of Racism for Whites (PCRW; Spanierman & Heppner, 2004). The PCRW is a 16-item scale developed to include three factors that when taken together conceptualize the psychosocial costs of racism for Whites: White empathy toward racial minorities, White guilt, and White fear of others. Responses to the measure are on a Likert scale from one to six (1=*strongly disagree* to 6=*strongly agree*) with three reverse coded questions. The measure demonstrates strong internal consistency coefficients for the factors of White empathy, White guilt, and White fear (Cronbach’s $\alpha = .85, .81, .78$, respectively) (Spanierman & Heppner, 2004). White empathy is measured by six items reflecting Whites’ feelings of empathy for racial minorities with questions like “I feel helpless about not being able to eliminate racism.” The White guilt factor consists of five items with statements such as “Whites have an unfair advantage over minorities” or “I never feel guilty about being White.” The White fear of others factor also consists of five items with statements such as, “I am fearful that racial minority populations are rapidly increasing in the U.S., and my group will no longer be the numerical majority.” Factor items are mixed together in the full presentation of the scale with a sample.

Demographics. To screen for White participants and fulfill equal percentages of male and female participants, demographics were asked at the beginning of the survey. If participants responded other than White or Caucasian, they were not selected to participate. Participants were asked to identify their gender (male, female, transgender male, transgender female, other-specify) via multiple choice and age via open text box. To assess national representation, participants were asked to “Please identify which of the 50 states that you live in, in the space provided.” Participants were asked about their level of education, “What is the highest degree or level of school you have completed? If currently enrolled,

the highest degree received” as well as their household income, with options for income ranges including \$0-\$9,999, \$10,000-\$19,999, \$20,000-\$29,999, and so on until \$100,000 or more, and “Prefer not to answer.”

Paradigm and Procedure

Participants were first given directions explaining that they would be presented with different electronic case records from the same state and that they should pay attention to details from the case record. All participants were presented with the same initial record of the multiracial target, which serves as the control record. The experimental records were then randomized as to what record would be presented first, either the White or the Black target. Each record was followed by the evaluations of the target individual measure regarding participants’ perceptions of the target. Participants were then redirected to another webpage to complete the guilty/not guilty IAT task. After completing the IAT task, they were then automatically returned to Qualtrics for the second portion of the survey that included the ATB scale. The study took an average of 30 to 45 minutes to complete.

Results

A final sample ($n = 113$) of White American adults was determined to have acceptable responses for analysis; 20 participants were removed due to inattentive responding indicated by missed manipulation and attention checks. This restricted sample consisted of 53 males (46.9%) and 60 females (53.1%), with a mean age of 57.25 ($SD = 15.58$), a median household income of \$50,000-\$59,000 (the mode income was \$100,000 or greater, $n = 19$). The majority of the sample (59.3%) held an Associate’s degree or higher in college ($n = 67$) and 39.8% of the sample had some college credit but no degree, to less than a high school degree ($n = 45$, missing $n = 1$).

Data Analysis Plan

We tested the hypothesis that perceptions of each target would demonstrate significant differences of characteristic ratings associated with the race of each target by comparing mean

differences between perceptions of each via paired-samples t-tests. These were planned contrasts between the Black and White targets only for characteristic ratings.

We then tested our hypothesis that the perceptions of the Black target would be associated with explicit bias for stereotypical characteristics and implicit bias for more ambiguous characteristics. Pearson correlations were conducted to examine the relationship of perceptions of the Black target and scores on the Attitudes toward Blacks Scale (ATB; Brigham, 1993) and Implicit Association Test for Guilt/Race (IAT; Levinson et al., 2010). Bonferroni corrections were made for these correlational tests to minimize capitalizing on chance.

Perceptions of Target Individuals

Participants averaged very low ratings of the White ($M = 2.89$; $SD = 1.04$) and Black ($M = 2.92$; $SD = 1.07$) targets as having positive traits from the aggregate variable. There was not a significant difference between these ratings $t(112) = -0.68$, $p = .499$, $d = .02$. Participants rated both the White ($M = 4.18$; $SD = 0.96$) and Black ($M = 4.18$; $SD = 1.00$) target as having negative traits for the aggregate variable but there was not a significant difference between ratings $t(112) = 0.02$, $p = .981$, $d = 0$.

Perceptions of Sanctions

Participants rated the White target ($M = 3.32$; $SD = 1.66$) and the Black target ($M = 3.40$; $SD = 1.72$) similarly in their agreement that the target deserved incarceration, $t(112) = -1.00$, $p = .320$, $d = .05$. An aggregate variable was calculated to capture participants' overall preference for health resources for each target and participant ratings for the White ($M = 4.76$; $SD = 1.43$) and Black ($M = 4.76$; $SD = 1.42$) targets were the same, $t(112) = 0.10$, $p = .923$, $d = .00$. Participants were also similar in their ratings of how fair they thought the sanctions were for the White ($M = 3.27$; $SD = 1.86$) and Black ($M = 3.38$; $SD = 1.95$) targets, $t(112) = -0.93$, $p = .357$, $d = .05$.

Predicting Perceptions from Racial Biases

Explicit racial bias scores were significantly correlated with negative characteristics/traits and traits stereotypically associated with Blacks, while correlations were not significant for positive traits (see Table 1). The ATB was also significantly correlated with variables: health issue, fairness of sanctions, and deserving incarceration for the Black target. As individuals reported higher explicit racial bias, the less likely they were to consider drug addiction a health issue; participants were also more likely to consider the harsh sanctions as fair and that the Black target deserved incarceration. Participant age was not significantly associated with the ATB.

After a Bonferroni correction was made for multiple tests ($p < .004$), the guilt IAT was no longer significantly correlated with items relating to criminal guilt for the Black target, such as drug addiction being considered a health issue and the target deserving incarceration. The guilt IAT was significantly correlated with the positive traits aggregate variable, such that the more implicit racial bias for criminal guilt of Blacks that an individual demonstrated, the less positively that they rated the Black target. The negative traits aggregate did not significantly correlate with implicit racial bias. Additionally, the guilt IAT was significantly correlated with participant age, such that older participants were more likely to demonstrate more implicit racial bias.

Across measures in Study 1 (demonstrated in Table 2), the ATB and the guilt IAT were positively correlated. Explicit racial bias was significantly correlated with a preference for health resources for both target targets, such that greater explicit bias was associated with less endorsement for preference for health resources. The ATB was also significantly correlated with White guilt, such that less explicit bias was associated with more feelings of White guilt; additionally, the ATB demonstrated a small effect size correlation with the PCRW in the same direction as White guilt, indicating convergence between the two measures in relation to explicit bias as well as with each other ($r = .61, p < .005$).

Similar to findings from Swim and Miller (1999) with an undergraduate sample, the group mean of White guilt for our sample was just below the midpoint of the scale ($M = 3.37, SD = 1.68, \text{range} = 1 \text{ to}$

7) with a similar standard deviation. This indicates that an adult sample overall is likely to endorse levels of White guilt to the same extent as a student sample (skewness = .19, kurtosis = -.96). Furthermore, females ($M = 3.81, SD = 1.71$) endorsed significantly more guilt than males ($M = 2.85, SD = 1.44$), $t(111) = -3.23, p = .002, d = .61$. Females also reported significantly more psychosocial costs of racism ($M = 3.67, SD = 0.38$) than males ($M = 3.50, SD = 0.37$) on the PCRW, $t(111) = -2.60, p = .011, d = .45$. The similar performance of the PCRW and White guilt lend further evidence of convergent validity, in response to limitations discussed by Spanierman and Heppner (2004) since these findings were with a nationwide sample of White American adults.

White identity was not significantly correlated with ATB scores but did demonstrate a small effect correlation in relation to the guilt IAT. This indicates that the more an individual holds a group identification with Whites, they may be more likely to hold more implicit racial bias of criminality. Additionally, the guilt IAT was marginally correlated with preferences for health resources such that the higher implicit bias for racial criminality that was demonstrated, the less preference for access to health resources that someone endorsed for individuals accused of drug crimes.

Study One Discussion

The results of Study 1 did not demonstrate group level differences in evaluations of characteristic ratings for the White or Black target individuals. The sample generally did not think that either target had positive characteristics and were close to neutral for their ratings of negative characteristics. Participants averaged levels of agreement that were close to neutral but in the direction of *not at all* on the Likert scale for how fair they thought the sanctions were and how deserving of incarceration the targets were. Participants were also generally close to neutral but somewhat agreed that the targets should receive or have access to health resources. The lack of variability at this group level suggests that in large groups of White Americans, evaluations of individuals accused of drug crimes do not differ based on race.

However, perceptions of the Black target differed as a function of individual differences within participants. That is, individuals who reported greater explicit racial bias were more likely to endorse negative but not positive traits, to agree with the criminal sanctions as being fair, and to indicate the individual was deserving of incarceration for the Black target. Participants with more explicit bias were also less likely to endorse health resources over incarceration and less likely to endorse or agree with the same evaluations and sanctions. Furthermore, implicit racial biases of criminality were associated with indirect evaluations of bias and punitiveness for the Black target. Individuals demonstrating a stronger association of guilt with the category “Black” were less likely to endorse positive traits, define drug addiction as a health issue or prefer health resources, and deserved incarceration for accused Black individuals.

There were a few limitations of Study 1 that we wanted to address in a subsequent study. The multiracial record that all participants saw first to acclimate to the study design included a different criminal charge and sanctions, which may have impacted evaluations of the White and Black targets convicted of drug crimes rather than robbery. Furthermore, our data collection coincided with the beginning of the COVID-19 (coronavirus) outbreak in the U.S. since collection concluded in the beginning of April and had begun in February of 2020. Approximately three-quarters of our total sample had been collected by early March, which was around the beginning of the nationwide acknowledgement of the virus as a pandemic for the U.S. With this in mind, it is possible that the united initial personal responses to the virus may have activated generally more positive attitudes toward people in the face of a shared crisis. However, at this time there was also an increase in xenophobic attitudes that could have led to more negative attitudes toward members of outgroups. Thus, to address the limitations of Study 1 we adjusted the multiracial target record to be the same as the White and Black target records, added a measure of social desirability, and ran the study with a sample of undergraduate students in Study 2.

Study Two

Method

Participants

Undergraduate student participants ($N = 126$) were recruited from introductory psychology courses at a mid-size public university in the U.S. Participants volunteered for the study through an online research system used by the university to coordinate student participation in research opportunities. Students have the choice to participate in research or to complete written alternative assignments for course credit. Participants were excluded from analyses ($n = 15$) if they missed more than two attention checks and did not pass manipulation checks for the White or Black target. Participants were also removed for analyses including the IAT if their percent accuracy was below three standard deviations from the sample mean ($M = 93.03$, $SD = 6.33$) or for technical issues using the software ($n = 9$). Materials and procedures were approved by the researchers' university Protection of Human Subjects Committee. All participants electronically signed an informed consent form before beginning the survey.

Materials

Replicated from Study 1. As described in Study 1 the following measures were used: Evaluations of the Target Individual, ATB Scale, and the Guilt IAT. The measures discussed below were either adapted further for Study 2 or new additions to the survey.

Electronic Case Record. The case records that were used for this study were the same as used in Study I with the only exception being changes made to the record for the multiracial target. In Study I the multiracial target was charged with non-violent robbery as their crime while the White and Black targets were charged with possession of a narcotic. While the multiracial record was still used as the control record, the crime was changed to match the narcotic charge and sanctions in the experimental records (CDS: POSS-HEROIN; 20 years incarceration, and a \$25,000 fine). All other details remained identical.

Social Desirability Scale-17 (SDS-17; Stöber 2001). The SDS-17 scale is a short form measure of social desirability that is convergent and validated in relation to other commonly used measures of social desirability (Eysenck Personality Questionnaire-Lie Scale, Sets of Four Scale, and the Marlowe-Crowne Scale). The full scale consists of 17 statements that participants rate as true or false, with seven reverse scored items. The final SDS-17 scale includes only 16 items because item 4 (“I have tried illegal drugs”) was excluded since it may not indicate social desirability in all individuals. However, its exclusion did not change the correlation between the full 17 item scale and the final 16 item scale. The measure demonstrates reliability (Cronbach’s $\alpha = .80$) and internal consistency across age groups. Higher summed scores on the measure indicate more socially desirable responding. The measure includes statements such as “In conversations I always listen attentively and let others finish their sentences,” “I always eat a healthy diet,” or “There has been at least one occasion when I failed to return an item that I borrowed.”

Demographics. Demographics were obtained at the end of the study since we did not screen for race or gender in Study 2 with the undergraduate sample. Additionally, we updated the survey logic to allow for a diverse sample to respond to the survey without answering questions specific to White participants. Otherwise, the demographic questionnaire was the same as in Study 1.

Paradigm and Procedure

The paradigm and procedure remained identical as in Study 1 for Study 2 and the study again only took an average of 30 to 45 minutes to complete.

Results

A final sample ($n = 111$) was determined to be acceptable responses for analysis; 15 participants were removed due to inattentive responding indicated by missed manipulation and attention checks. This restricted sample consisted of 32 cisgender males (28.8%), 76 cisgender females (68.5%), one transgender male (.9%), one transgender female (.9%), and one non-binary individual (.9%). The mean age for the sample was 19.67 ($SD = 2.09$) and reported a mode and median household income of

\$100,000 or greater ($n = 71$). The majority of the sample identified as White ($n = 77, 69.4\%$) followed by East Asian ($n = 13, 11.7\%$), Black or African American ($n = 7, 6.3\%$), Hispanic or Latin-o/-a ($n = 7, 6.3\%$), multiracial ($n = 3, 2.7\%$), and Other ($n = 4, 3.6\%$).

Data Analysis Plan

We conducted the same analyses that were conducted in Study 1 relating to the same hypotheses. These analyses were first conducted with our final sample to include participants of differing racial backgrounds. In addition, we then conducted all of the same analyses with a subset of the sample that identified as White ($n = 77$) to examine the majority group perceptions relative to our national sample from Study 1.

Perceptions of Target Individuals

Participant ratings for the aggregate of positive traits significantly differed between the White ($M = 3.15; SD = 0.86$) and Black ($M = 3.32; SD = 0.86$) targets, $t(110) = -4.45, p = .000, d = .20$. This difference of positive traits was also present for the White only subset between the White ($M = 3.18; SD = 0.80$) and Black ($M = 3.34; SD = 0.81$) targets, $t(76) = -4.12, p = .000, d = .20$. Participants also significantly differed in their ratings of the White ($M = 3.62; SD = 0.84$) and Black ($M = 3.51; SD = 0.81$) target for the aggregate of negative traits, $t(110) = 2.42, p = .017, d = .13$. White participants, however, did not rate the White ($M = 3.15; SD = 0.86$) and Black ($M = 3.32; SD = 0.86$) targets differently for negative traits, $t(76) = -1.35, p = .181, d = .13$.

Perceptions of Sanctions

Participants rated the White target ($M = 2.00; SD = 1.3$) and the Black target ($M = 2.00; SD = 1.21$) similarly in their agreement that the target deserved incarceration, $t(110) = 0, p = 1, d = .00$. White participants rated the White ($M = 1.99; SD = 1.32$) and Black ($M = 1.94; SD = 1.14$) targets similarly as deserving incarceration, $t(76) = .51, p = .609, d = .04$. Participant ratings for the White ($M = 6.00; SD = 1.02$) and Black ($M = 6.02; SD = 0.97$) targets were similar for the aggregated preference for health

resources, $t(110) = -.69$, $p = .491$, $d = .02$. White participant ratings were similar for the White ($M = 6.03$; $SD = 1.01$) and Black ($M = 6.04$; $SD = 0.97$) targets for aggregated health resource preference, $t(76) = -.23$, $p = .819$, $d = .01$. Participants significantly differed in their ratings of how fair they thought the sanctions were for the White ($M = 2.36$; $SD = 1.40$) and Black ($M = 2.22$; $SD = 1.32$) target, $t(110) = 2.47$, $p = .015$, $d = .10$. White participant ratings of sanction fairness were similar for the White ($M = 2.22$; $SD = 1.27$) and Black ($M = 2.10$; $SD = 1.20$) targets, $t(76) = 1.63$, $p = .106$, $d = .10$.

Predicting Perceptions from Racial Biases

Consistent with Study 1, correlations were examined between the ATB, guilt IAT, and participant ratings of characteristics for the Black target. Explicit racial bias scores were significantly correlated with negative characteristics/traits and traits stereotypically associated with Blacks, as well as for positive traits (see Table 3). The ATB was also significantly correlated with variables: health issue, fairness of sanctions, and deserving incarceration for the Black target, replicating findings from Study 1.

Contrary to findings in Study 1, the guilt IAT did not demonstrate significant correlations with items relating to criminal guilt for the Black target, such as drug addiction being considered a health issue and the target deserving incarceration. The guilt IAT replicated a significant correlation with the positive traits aggregate variable, consistent with Study 1.

Across measures in Study 2 (demonstrated in Table 4), the ATB and the guilt IAT were negatively correlated, replicating from Study 1. Explicit bias (ATB) was significantly correlated with a preference for health resources for both targets and White guilt, replicated from Study 1. Consistent from Study 1, White identity was not significantly correlated with ATB scores. Additionally, the guilt IAT only demonstrated small effect correlations with health resource preference and White guilt but these were not significant. Inconsistent with Study 1, the guilt IAT did not demonstrate statistically significant correlations with preferences for health resources or White Identity. Social desirability in this sample ($M = 9.09$; $SD = 3.30$) was higher than average scores demonstrated in the instrument development (e.g. M

= 8.53; $SD = 3.45$; Stöber, 2001), however, covariate analysis did not reveal a significant influence of social desirability on responses.

Study Two Discussion

In contrast to Study 1, group level evaluations of the characteristic ratings for the White or Black target individuals differed significantly in the undergraduate student sample in Study 2. Participants generally rated both targets close to neutral for positive and negative characteristics. Participants averaged levels of agreement that the targets were sanctioned with unfair sentencing decisions (20 years incarceration and a \$25,000 fine) and agreed that both targets were equally undeserving of incarceration. With the exception of deserving incarceration, participants overall rated the Black target less critically than the White target. These findings suggest that social desirability may have influenced responding because they are contrary to expectations based on past literature, particularly with an undergraduate sample. To this extent, we conducted the same analyses including social desirability scores as a covariate and it did not demonstrate a significant change to the results. Thus we have not included any further results beyond the sample mean and standard deviation of scores. In our following studies, we will follow the same paradigm and only report differences if they are demonstrated in the covariate analyses. Participants averaged agreement that both targets should receive or have access to health resources, which was not significantly different based on race. These findings overall suggest that for present-day undergraduate samples, evaluations of individuals accused of drug crimes differ on race in favor of Black individuals.

Even with these promising group level results, perceptions of the Black target differed as a function of individual differences within participants. Replicating findings from Study 1, individuals who reported greater explicit racial bias were more likely to endorse negative but not positive traits, to agree with the criminal sanctions as being fair, and to indicate the individual was deserving of incarceration for the Black target. Participants with more explicit bias were also less likely to endorse health resources

over incarceration and less likely to endorse or agree with the same evaluations and sanctions.

Inconsistent with Study I, individuals demonstrating a stronger association of guilt with the category “Black” did not define drug addiction as a health issue or prefer health resources but were only less likely to endorse positive traits of accused Black individuals. Implicit racial biases of criminality were significantly associated with only some indirect evaluations of bias but not punitiveness for the Black target.

The limited variance in ratings and demonstrations of racial bias (explicit and implicit) in both studies, while significant in Study 2, may be in response to the type of crime being presented. Stereotypes of criminality that are associated with Black individuals primarily rests on the threat of violence (King & Wheelock, 2007; Mancini et al., 2015; Unnever & Cullen, 2012) and low-level drug crimes are not generally considered violent or dangerous. Thus, the activation of participants’ explicit and implicit racial biases may not be as salient as it would be when presented with higher-level, more violent types of crime. Furthermore, at the time of data collection for this sample there was political and social strife in addition to the start of pandemic related restrictions. The increased visibility of police brutality against Black Americans following the murder of George Floyd in May 2020 led to demands for legally protected civil rights that are not upheld in the criminal justice system. This civil unrest was further challenged and influenced in the face of political campaigning for the American presidency during the 2020 election. To address these limitations, we maintained the structure and delivery of the study but adjusted the criminal case records to reflect an aggravated assault charge, rather than a drug charge. We chose aggravated assault over other types of violent crime to reduce the potential influence of gender differences related to domestic or sexual abuse and because murder has already been extensively examined in past literature. Study III was conducted with a sample of undergraduates in the Fall semester of 2020.

Study Three

Method

Participants

Undergraduate student participants ($N = 176$) were recruited from introductory psychology courses at a mid-size public university in the U.S. Participants volunteered for the study through an online research system used by the university to coordinate student participation in research opportunities. Students have the choice to participate in research or to complete written alternative assignments for course credit. Participants were excluded from analyses ($n = 26$) by the same criteria outlined in Study 1. Participants were also removed for analyses including the IAT if their percent accuracy was below three standard deviations from the sample mean ($M = 93.69$, $SD = 4.73$) or for technical issues using the software ($n = 26$). Materials and procedures were approved by the researchers' university Protection of Human Subjects Committee. All participants electronically signed an informed consent form before beginning the survey.

Materials

Replicated from Study 1 and 2. As described in Studies 1 and 2, the following measures were used: ATB Scale, Guilt IAT, SDS-17 Scale, and Demographics. The measures discussed below were either adapted further for Study 3 or new additions to the survey.

Electronic Case Record. The case records that were used for this study were the same as used in Study II with the only exception being changes made to the crime and sanctions described for each target. The previous charge was for the possession of a narcotic and included Maryland legal sanctions for such a charge (CDS: POSS-HEROIN; 20 years incarceration, and a \$25,000 fine). The charge was changed for all three case records to "CDS: 1st DEG-AGGRAVATED ASSAULT" with sanctions of 20 years incarceration and no fine, which were consistent with Maryland legal sanctions for a first-degree aggravated assault charge. All other details remained identical to the case record versions from Study 2.

Evaluations of the Target Individual. Following each of the case records, participants responded to the same series of questions regarding the record they just viewed. The only change to this measure was to adjust questions relating to health resources for the target individual. For Studies for 1 and 2, these questions referred to drug addiction in relation to health resources. This was adjusted to reflect aggravated aggression in relation to mental health resources by changing “health resources or services” to “mental health resources or services.” For example, “This person should have access to mental health resources” or “This person deserves to be incarcerated over being given access to mental health services.”

Paradigm and Procedure

The paradigm and procedure remained identical as in Studies 1 and 2. The study again only took an average of 30 to 45 minutes to complete.

Results

A final sample ($n = 150$) was determined to be acceptable responses for analysis; 26 participants were removed due to inattentive responding indicated by missed manipulation and attention checks. This restricted sample consisted of 41 males (27.3%), 106 females (70.7%), two non-binary individuals (1.3%), and one individual who did not report their gender. The mean age for the sample was 19.00 ($SD = 1.02$) and reported a mode and median household income of \$100,000 or greater ($n = 73$). The majority of the sample identified as White ($n = 80, 53.3%$) followed by East and/or South Asian ($n = 27, 18.0%$), Black or African American ($n = 16, 10.6%$), Hispanic or Latin-o/-a ($n = 9, 6.0%$), multiracial ($n = 6, 4.0%$), Middle Eastern ($n = 4, 2.7%$), Pacific Islander ($n = 1, 0.7%$), and Other ($n = 7, 4.7%$).

Data Analysis Plan

We conducted the same analyses that were conducted in Study 1 and 2, relating to the same hypotheses. These analyses were first conducted with our final sample ($n = 150$; df affected by missing data from one participant in select analyses below) to include participants of differing racial

backgrounds. In addition, we then conducted all of the same analyses with a subset of the sample that identified as White ($n = 80$) to examine the majority group perceptions relative to our national sample from Study 1 and the White sample from Study 2.

Perceptions of Target Individuals

Participant ratings for the aggregate of positive traits significantly differed between the White ($M = 3.13$; $SD = 0.79$) and Black ($M = 3.26$; $SD = 0.82$) targets, $t(149) = -3.38$, $p = .001$, $d = .16$. This difference of positive traits was marginally present for the White only subset between the White ($M = 3.31$; $SD = 0.77$) and Black ($M = 3.38$; $SD = 0.84$) targets, $t(79) = -1.70$, $p = .093$, $d = .20$. Participants also significantly differed in their ratings of the White ($M = 4.72$; $SD = 0.82$) and Black ($M = 4.55$; $SD = 0.75$) target for the negative traits aggregate, $t(149) = 4.19$, $p = .000$, $d = .22$. White participants rated the White ($M = 4.71$; $SD = 0.69$) and Black ($M = 4.60$; $SD = 0.73$) targets significantly different for negative traits, $t(79) = 2.96$, $p = .004$, $d = .13$.

Perceptions of Sanctions

Participants rated the White target ($M = 3.17$; $SD = 1.40$) and the Black target ($M = 3.01$; $SD = 1.42$) differently as deserving incarceration, $t(149) = 2.40$, $p = .018$, $d = .11$. However, White participants rated the White ($M = 3.16$; $SD = 1.57$) and Black ($M = 3.04$; $SD = 1.55$) targets similarly as deserving incarceration, $t(79) = 1.69$, $p = .096$, $d = .08$. Participant ratings for the White ($M = 4.80$; $SD = 1.13$) and Black ($M = 4.89$; $SD = 1.16$) targets were significantly different for the aggregated preference for health resources, $t(149) = -2.77$, $p = .006$, $d = .08$. White participant ratings were similar for the White ($M = 4.87$; $SD = 1.17$) and Black ($M = 4.89$; $SD = 1.21$) targets for aggregated health resource preference, $t(79) = -.61$, $p = .543$, $d = .02$. Participants significantly differed in their ratings of how fair they thought the sanctions were for the White ($M = 3.74$; $SD = 1.42$) and Black ($M = 3.56$; $SD = 1.45$) target, $t(148) = 2.34$, $p = .021$, $d = .13$. White participant ratings of sanction fairness was similar for the White ($M = 3.56$; $SD = 1.47$) and Black ($M = 3.48$; $SD = 1.54$) targets, $t(78) = .87$, $p = .390$, $d = .05$.

Predicting Perceptions from Racial Biases

Consistent with Studies 1 and 2, correlations were examined between the ATB, guilt IAT, and participant ratings of characteristics for the Black target. Explicit racial bias was not significantly correlated with negative traits or the fairness of sanctions but was significant for positive traits and considering aggression as a mental health issue (see Table 5). Consistent with findings in Study 2, the guilt IAT did not demonstrate significant correlations with items relating to criminal guilt for the Black target, such as drug addiction being considered a health issue and the target deserving incarceration. The guilt IAT otherwise did not significantly correlate with other variables specific to the Black target. Social desirability in this sample ($M = 8.40$; $SD = 3.51$) was similar to average scores demonstrated in the instrument development (Stöber, 2001), however, covariate analysis did not reveal a significant influence of social desirability on responses.

Across measures in Study 3 (demonstrated in Table 6), the ATB and the guilt IAT were positively correlated, replicated from Studies 1 and 2. Explicit bias was significantly correlated with a preference for health resources for both targets and White guilt, replicated from Studies 1 and 2. Further consistent with Studies 1 and 2, White identity was not significantly correlated with ATB scores. Additionally, the guilt IAT only demonstrated small effect correlations in relation to White Identity and White guilt but were not significant. Inconsistent with Study 1 but consistent with Study 2, the guilt IAT did not demonstrate statistically significant correlations with preferences for health resources or White Identity. White guilt was significantly correlated with preferences for health resources for both the Black and the White targets, which is consistent only with Study 2.

Study Three Discussion

Group level differences in Study 3 were significant for perceptions of the target individuals, such that the Black target was rated less negatively than the White target and participant ratings overall were positive or close to neutral. Participants generally disagreed that the sanctions for each of the targets

was fair (20 years incarceration and no fine) and that they deserved incarceration. The White target was rated more critically than the Black target by the whole sample. The analyses conducted with the White participants, however, did not indicate significant differences at the group level. Except that evaluations of negative traits indicated that the White target was rated more negatively than the Black, suggesting an in-group critical evaluation or the potential influence of social desirability on responding.

In addition to group level differences, significant individual level differences were replicated from Studies 1 and 2. Individuals endorsing greater explicit racial bias were more likely to rate the Black target as having less positive traits, disagree with considering aggression a mental health issue, and as deserving incarceration. The guilt IAT performed similarly to what was demonstrated in Study 2 and not Study 1, such that it was not significantly associated with our variables of interest (e.g., negative or positive traits).

Similar to the limitations discussed in Study 2, our third study was conducted in the Fall of 2020, which was marked by the continuation of pandemic restrictions and limitations, as well as continued political and social strife. Additionally, this was an undergraduate sample, which may account for the differences in perceptions relative to the findings from Study 1. In Study 4, we surveyed another adult sample of White Americans using Amazon's MTurk in the Spring of 2021. This was necessary to examine our research questions outside of the young adult population and with lower levels of national collective stress due to various factors like the pandemic.

Study Four

Method

Participants

White participants ($N = 166$) were recruited from Amazon's Mechanical Turk (MTurk) online research system. Participants who elected to participate in the study were compensated \$4.00 (USD).

The four major regions of the U.S. were represented in the sample by at least two states; also represented was Alaska but not Hawaii. Participants were excluded from analyses ($n = 45$) if they missed more than two attention checks and did not pass manipulation checks for the White or Black targets. Participant performance on the IAT was poor this sample ($M = 71.91$, $SD = 21.25$) compared to the means and standard deviations of the past three samples and for an additional portion of the sample, there was no IAT available ($n = 46$). Thus, participants were also removed for analyses that included the IAT if their percent accuracy was below 70%, which is consistent with the cut-offs established in our previous studies indicating inattentiveness ($n = 52$). The majority of these exclusions apply to the same participants whose responses correspond to multiple exclusionary criteria. Materials and procedures were approved by the researchers' university Protection of Human Subjects Committee. All participants electronically signed an informed consent form before beginning the survey.

Materials

Replicated from Studies 1 - 3. As described in Studies 1-3, the following measures were used: Evaluations of the Target Individual, ATB Scale, Guilt IAT, SDS-17 Scale, and Demographics. Furthermore, the Electronic Case Records used for Study 4 were the same as used in Study 3 with the aggravated assault charge and corresponding sanction.

Paradigm and Procedure

The paradigm and procedure remained identical as in Studies 1 - 3. The study again only took an average of 30 to 45 minutes to complete.

Results

A final sample ($n = 111$) of White American adults was determined to be acceptable responses; 55 participants were removed due to inattentive responding indicated by missed manipulation and attention checks. This restricted sample consisted of 53 males (47.7%), 44 females (39.6%), one transgender female (0.9%), and 11.7% of the sample did not indicate their gender ($n = 13$). The mean

age for the sample was 39.11 ($SD = 11.45$) with a median household income of \$50,000-\$59,000 (the mode income was \$40,000-\$49,000, $n = 23$). The majority of the sample (66.7%) held an Associate's degree or higher in college ($n = 74$) and 21.6% of the sample had some college credit but no degree, to less than a high school degree ($n = 24$) and 11.7% did not indicate their highest degree obtained ($n = 13$). However, due to the poor performance on the IAT by this sample, only 58 participants have adequate responses for analyses that include the implicit measure.

Data Analysis Plan

We conducted the same analyses that were conducted in Studies 1 through 3 to test the hypothesis that perceptions of each target would differ on characteristic ratings based on race via paired-samples t-tests. These were planned contrasts between the Black and White targets only for characteristic ratings.

We then tested our hypothesis that the perceptions of the Black target would be associated with explicit racial bias for stereotypical characteristics and implicit racial bias for more ambiguous characteristics. Pearson correlations were conducted to examine the relationship of perceptions of the Black target and these racial bias scores.

Perceptions of Target Individuals

Participant ratings for the aggregate of positive traits did not significantly differ between the White ($M = 3.66$; $SD = 1.54$) and Black ($M = 3.54$; $SD = 1.58$) targets, $t(110) = 1.56$, $p = .122$, $d = .08$. In contrast, participants significantly differed in their ratings of the White ($M = 5.06$; $SD = 1.01$) and Black ($M = 5.19$; $SD = 0.96$) target for the negative traits aggregate, $t(110) = -2.23$, $p = .028$, $d = .12$.

Perceptions of Sanctions

Participants did not rate the White target ($M = 4.61$; $SD = 1.60$) and the Black target ($M = 4.60$; $SD = 1.59$) differently as deserving incarceration, $t(110) = 0.08$, $p = .934$, $d = .01$. Participant ratings for the White ($M = 4.59$; $SD = 1.33$) and Black ($M = 4.55$; $SD = 1.46$) targets were not significantly different

for the aggregated preference for health resources, $t(110) = 0.67$, $p = .504$, $d = .03$. Participants also did not significantly differ in their ratings of how fair they thought the sanctions were for the White ($M = 4.49$; $SD = 1.75$) and Black ($M = 4.65$; $SD = 1.68$) target, $t(110) = -1.40$, $p = .163$, $d = .09$.

Predicting Perceptions from Racial Biases

Consistent with Studies 1 through 3, correlations were examined between the ATB, guilt IAT, and participant ratings of characteristics for the Black target. Explicit racial bias was significantly correlated with the guilt IAT, positive traits, and agreement that the Black target deserved incarceration (see Table 7). Consistent with findings in Study 1, the guilt IAT demonstrated significant correlations with participant age and with criminal guilt for the Black target, such that the target deserved incarceration. The guilt IAT otherwise did not significantly correlate with other variables specific to the Black target. Social desirability in this sample ($M = 8.47$; $SD = 3.82$) was similar to average scores demonstrated in the instrument development (Stöber, 2001), however, covariate analysis did not reveal a significant influence of social desirability on responses.

Inconsistent with Studies 1 through 3, explicit racial bias was significantly associated with the guilt IAT (demonstrated in Table 8), indicating that individuals with high explicit racial bias also demonstrated high implicit racial bias. In the previous studies this relationship ranged from $r = .07$ to $.17$ but was not significant. Explicit bias was not significantly related to preference for health resources for both targets and White guilt, replicated from Studies 1 through 3. However, explicit bias was significantly related to White identity which is inconsistent with the previous three studies. White Identity was otherwise not significantly correlated with our other variables of interest, which is consistent with Study 3 but not Studies 1 or 2. The guilt IAT performed similarly as in Studies 2 and 3 but in this sample it only demonstrated a significant correlation to White guilt and no other variables of interest. The limited sample of attentive responses for the guilt IAT may have contributed to this difference of performance.

Study Four Discussion

Perceptions did not significantly differ at the group level when comparing perceptions of the White and Black targets, which is similar to what was demonstrated in Study 1 with the other sample of White American adults. Participants generally were close to neutral or somewhat agreeing that each target deserved incarceration, that the sanctions were fair (20 years and no fine), and that they should have access to mental health resources. Additionally, participant ratings were close to neutral or somewhat disagreeing that each target had positive traits. These ratings were not significantly different between the White and Black target. However, there was a significant difference of perceptions of negative traits such that the Black target was rated less positively than the White target ($p = .028$).

At the individual level, differences were much more varied in this sample compared to the three previous studies. Individuals who demonstrated higher explicit racial bias were *only* more likely to rate less agreement that the Black target possessed positive traits and that they deserved incarceration. In comparison, our previous studies also demonstrated that explicit bias was significantly related to higher ratings of negative traits and harsh crime sanctions as fair, while also associated with lower ratings considering drug or assault crimes as health issues and access to health resources. These relationships were not present in this sample. Furthermore, individuals demonstrating higher implicit racial bias were significantly more likely to exhibit more explicit racial bias and a stronger association with their White racial identity. Higher implicit racial bias was also significantly associated with participant age and agreement that the Black target deserved incarceration, which is consistent with Study 1.

However, the similarities between the samples from Study 4 and Study 1 end there. Participants in Study 4 did not demonstrate a performance on the guilt IAT, or other measures for that matter, to the same appropriate level of attention that was illustrated in Studies 1 through 3. Although past research has indicated that the data obtained through Amazon's MTurk is similar in reliability to lab studies (Buhrmester et al., 2011), it is clear that this sample did not perform nearly as attentively as the sample

from Qualtrics (Study 1) or undergraduate students (Studies 2 and 3). This is exemplified by the restriction of the total sample from $N = 166$ to $n = 111$ for most analyses and only to $n = 58$ for analyses that included the IAT. This could be at least a partial explanation for the differences that were observed in patterns between this sample and the three previous ones. In the general discussion, we examine these inconsistencies as well as the trends and patterns that were consistent across the four studies.

General Discussion

This research aimed to examine the relationships between constructs of racial bias and evaluations of accused individuals in the criminal justice system. These character evaluations were examined for differences based on race and the associated sanctions for the crimes individuals were accused of. In four studies with over 400 participants, adult and undergraduate samples viewed fictitious electronic case records for individuals varying by race that were convicted of drug or assault crimes. The within-subjects design of these studies allowed participants to evaluate traits and sanctions following each of the target presentations and complete measures of implicit and explicit bias. Although it was hypothesized that perceptions of the targets would differ as a function of race across all studies, this varied based on the population from which the samples were drawn. With the adult samples from Studies 1 and 4, perceptions of the targets did not significantly differ based on race, with the exception of negative traits. While the undergraduate samples from Studies 2 and 3 had significantly different perceptions for the majority of evaluations of the targets in favor of the Black target compared to the White. This same trend was present for perceptions of the criminal sanctions based on race across studies. The adult samples did not significantly differ in their perceptions of the fairness of sanctions, incarceration, or health preferences as a function of race. For the undergraduate samples these perceptions were more varied but demonstrated either egalitarian attitudes (e.g., both targets “deserved” incarceration equally) or were in favor of the Black target for health resources or as having less fair sanctions compared to the White target. Through our correlational analyses, the relationships

between constructs of racial bias (explicit and implicit) and evaluations of the Black targets also varied across studies. Generally, participants with greater explicit racial bias rated the Black target more negatively, endorsed punitive sanctions and that they deserved incarceration. Although there were some inconsistencies in the relationship between implicit bias and perceptions of the Black targets, implicit criminality racial bias was associated with more negative indirect evaluations of the Black target and more punitive judgments of sanctions.

The group level differences that were observed across studies were inconsistent with our main hypothesis such that evaluations of the target offenders and criminal sanctions would significantly differ based on race. For the White American adult samples, this hypothesis was not supported, which is in contrast with past research indicating group-level differences in perceiving Blacks as more stereotypically criminal (Eberhardt et al., 2004; Payne, 2001) and as violent perpetrators of crime compared to Whites (Chiricos et al., 2004; Gilliam & Iyengar, 2000; Mancini et al., 2015; Najdowski et al., 2015). The only exception to this was a significant difference in Study 4 with the aggravated assault charge in which participants perceived the Black target as having more negative traits than the White target, which is in line with our hypothesis. These national samples did not demonstrate significantly different perceptions of the criminal sanctions based on race as had been expected from our hypotheses. However, this is consistent with the inconclusive research concerning mock-juror studies that overall demonstrate inconsistent findings of sentencing ratings or decisions based on race (Mitchell et al., 2005). Further, the level of punitiveness participants endorsed in these national samples was low to neutral and not significantly different between offenders based on race. This is contrary to expectations about punitiveness based on race that has been demonstrated in past research examining drug and violent crimes (Eberhardt et al., 2006; Lum et al., 2014; Peffley & Hurwitz, 2007).

The subsamples of White undergraduate students partially replicated findings from our national samples of White Americans in that overall perceptions of the targets and criminal sanctions did not

differ by race. Similar to the adult samples, there were exceptions in evaluations such that participants only significantly rated the Black target as having more positive traits in Study 2 and as having more negative traits in Study 3 compared to the White target. Between Study 2 and Study 3, the criminal charge changed for the targets from drug possession to aggravated assault, which may explain the differences and changes in ratings of positive and negative traits. It is also possible that the significant difference in ratings of positive traits in Study 2 may be due to the political and social climate at the time of data collection during spring of 2020, which coincided with the recharge of the Black Lives Matter movement following increased visibility of police brutality. For the White student subsample, there were also no significant differences in perceptions of criminal sanctions based on race, which is in contrast to our hypothesis but consistent with findings from the national White samples.

Without parsing out the White subsamples and accommodating a more diverse student sampling for Studies 2 and 3, our hypothesis was not supported; that is, the Black target was evaluated more positively than the White target. Evaluations of the target offenders were significantly different across these two samples between ratings at the group level for positive and negative trait perceptions as well as for fair sanctions such that the Black target was rated less critically compared to the White target. It was expected that significant differences in these evaluations at the group level would be based on race such that the White target would be rated less critically compared to the Black target, which has been demonstrated in past research (Chiricos et al., 2004; Eberhardt et al., 2004; Gilliam & Iyengar, 2000; Mancini et al., 2015; Najdowski et al., 2015; Payne, 2001). Yet, considering comparisons across studies, our findings indicate that group level evaluations of criminal offenders were not based on race for White Americans in general but were based on race equally or in favor of the Black target for undergraduate students.

The current work also examined participants' racial bias and the associations between bias and perceptions of the Black targets. Of our four samples, the final adult sample from Study 4 reported

greater levels of explicit racial bias on the ATB scale, while the other three samples demonstrated mean scores on the lowest end of the scale. Greater self-reported explicit racial bias was associated with the perceptions of the Black target as having fewer positive traits and more negative traits. This is similar to findings from Dovidio and colleagues (2002) in which participants who had self-reported greater explicit bias demonstrated less “friendly” verbal behavior toward Blacks compared to those who reported less and demonstrated more friendly verbal behavior. Further, the negative traits that participants endorsed were related to criminality stereotypes (e.g., how immoral, threatening, or violent). This is in accordance with past literature, in which explicit racial bias has been shown to be associated with perceptions of Black men as being more criminal than their White counterparts (Eberhardt et al., 2004; Eberhardt et al., 2006; Payne, 2001) and how likely Blacks are to commit crime (Gilliam & Iyengar, 2000; Mancini et al., 2015). Participants in our studies who reported greater explicit bias also endorsed more punitive attitudes. These attitudes were demonstrated through significant associations between explicit bias and evaluations of the Black target as “deserving” incarceration and with less preferences for health or mental health resources for drug addiction and aggression issues (respectively). This is within expectations based on previous findings that demonstrated a predictive relationship between explicit racial bias and the likelihood of harsh punishments for Blacks, including death sentencing (Eberhardt et al., 2006; Peffley & Hurwitz, 2007). However, the inconsistencies of these relationships across our studies can likely be attributed to differences in the type of samples obtained (national adult versus undergraduate), general balanced ratings of targets, and particularly issues of attentiveness in Study 4.

In addition to explicit bias, implicit racial bias as measured by the guilt IAT (Levinson et al., 2010) demonstrated varied associations with perceptions of the Black target. Our first sample of White Americans demonstrated high implicit racial bias while the two undergraduate samples demonstrated no implicit biases of criminality based on race. The final sample of White Americans also indicated no implicit biases of criminality but the attentiveness and performance on this portion of the survey was

considerably poor. The pattern of findings demonstrated across these samples may be related to age based differences. Implicit biases are developed through learning and socialization processes that occur throughout the lifetime (Baron & Banaji, 2006; Dovidio et al., 2001, Dovidio et al., 2002; Forscher, Lai, et al., 2019). For the younger samples of undergraduate students, they likely have experienced or undergone less of those processes so the implicit biases may not have been fully formed. It is also likely that the college experience and general liberal leaning could have contributed to the lack of implicit bias present. Further, it is possible that general egalitarian explicit attitudes were activated more during the administration of this adaptation of the IAT. In contrast, the adult samples have had more time to absorb possible implicit racial biases of criminality and were not associated with current college experiences. Our findings support this explanation as the guilt IAT was only significantly correlated with age for the studies with adult samples and not with the undergraduate samples.

Implicit biases were significantly associated with evaluations of the Black target as having positive traits in Study 1 and 2. These findings suggest that individuals with higher implicit racial bias are less likely to endorse Black accused individuals as having positive traits compared to Whites. These findings satisfy the expectation that implicit biases are thought to relate to more ambiguous evaluations (Forscher, Lai, et al., 2019; Greenwald et al., 1998), since evaluating criminal offenders on positive trait characteristics is not a direct query of criminality. Greater implicit racial biases were also associated with viewing drug addiction as a health issue in Study 1 only and with deserving incarceration in Study 1 and 4. These isolated findings are consistent with the rationale and demonstration of the adapted IAT by Levinson et al. (2010). However, throughout these studies, implicit racial bias was not consistently significantly associated with more ambiguous evaluations or with sanctions for the Black target as we had expected based on past literature (Greenwald et al., 1998; Forscher, Lai, et al., 2019; Levinson et al., 2010). This varied performance is likely due to the lack of implicit bias demonstrated in the undergraduate samples and the poor attention from the final sample of adults. It may also be that the

unique contribution of the guilt IAT compared to the race IAT is not as robust of an implicit association test as was suggested when Levinson et al. (2010) adapted the measure. The sample of undergraduate students used to adapt the measure was relatively small ($N = 67$) so Levinson et al.'s (2010) adaptation may not have had the power necessary to apply their version of the test beyond indicating an implicit association to larger instances of implicit biases and associated concepts. There is also a debate within the field as to the construct validity of the IAT as measuring implicit or automatic preferences in general (Kurdi et al., 2021; Schimmack, 2021).

Where this debate tends to settle, however, are the roles that explicit and implicit cognitive processes play. The implicit-social cognition field contends that explicit biases and processes are separate but related constructs to implicit biases and processes (Dovidio et al., 2002; Forscher, Lai, et al., 2019; Greenwald et al., 1998; Kurdi et al., 2021). These attitudes will then inform behavior in different ways (e.g., Dovidio et al., 2002). Criticisms of the IAT suggest that it may be measuring explicit preferences in an indirect way; that it does not consistently demonstrate convergent validity with other indirect methods (e.g., evaluative priming tasks); or that direct and indirect measures of cognition are too closely related to be separate (Kurdi et al., 2021; Schimmack, 2021). For example, in Study 4 implicit bias was significantly associated with explicit bias but it was not significant in the other three studies, even though the relationship was demonstrated with low correlations. It is not usually the case that explicit and implicit biases demonstrate significant associations (Forscher, Lai et al., 2019). From a critical perspective, this may support the notion that the IAT is measuring similar cognitive processes. However, the strong relationship between these constructs more likely indicates that an individual's behavior will be consistent with those explicit and implicit views. This particular finding then is further evidence that explicit and implicit bias are related but separate constructs, which has consistently been examined and theorized in the field (Forscher, Lai et al., 2019; Greenwald et al., 1998; Kurdi et al., 2021).

Furthermore, it was clear that this sample did not attend to the task appropriately and therefore, findings from this sample should be considered quite limited concerning the guilt IAT.

This research also aimed to examine potential differences and similarities that may be associated with different levels of crime, particularly drug and violent crimes. While the stereotype of criminality and violence is associated with Black individuals (Chiricos et al., 2004; Eberhardt et al., 2004; Gilliam & Iyengar, 2000; Mancini et al., 2015; Najdowski et al., 2015; Payne, 2001), race based differences in perceptions of Blacks compared to Whites has also been documented with low-level drug use (Cicero et al., 2014; Hansen & Netherland, 2016; Hendricks & Wilson, 2013; Netherland & Hansen, 2016). However, missing from this past literature is a direct examination of these relationships considered through the same paradigm to allow for comparisons between levels of crime. Furthermore, low-level crimes are not as extensively examined as higher-level crimes and thus, it has not been consistently demonstrated how constructs of racial bias influence people's perceptions of individuals accused of drug crimes and punitive consequences of those crimes. Between the first set of studies (1 and 2) and the second set (3 and 4), we expected that group-level differences in evaluations of the target offenders and sanctions would be present for the targets charged with aggravated assault. This is because we theorized that violent criminality stereotypes of Black individuals would be more salient for racially biased responding compared to low-level drug crimes. As discussed above, this additional expectation was not supported by our findings since overall group level evaluations of criminal offenders were not based on race for White Americans in general but were based on race equally or in favor of the Black target for undergraduate students. This is similar to findings from a recent study by Atkin-Plunk (2020) that utilized an undergraduate sample, which demonstrated equitable sanctioning preferences for violent drug crimes, those with mental health issues, and veterans but not for domestic abuse crimes.

Applications

Racial threat theory posits that prejudice and intergroup hostility are reactions to the perceived threat to shared resources (social or economic) and social order by minority racial groups (King & Wheelock, 2007; Mancini et al., 2015). Advantaged groups are then more likely to engage in formal and informal mechanisms of control to maintain the advantaged position. Thus, in a criminal justice context this involves criminal punishment through arrest, incarceration, policing presence, use of deadly force by police, criminal justice budgeting, punitive attitudes, and legislation limiting re-entry for individuals convicted of felony charges (King & Wheelock, 2007). The profound impacts of progressing through the criminal justice system are not limited to the individual being processed but their entire network of family, friends, coworkers, local community, and even our national community. From the War on Drugs to Mass Incarceration it is clear that the American criminal justice system is marred by incredible faults that have contributed to the potential for racial discrimination to perpetuate disadvantages for people of color who come into contact with the system. While the focus of this research has been on adult offenders, the same and similar discriminatory decisions are made even at the juvenile level of the criminal justice system. Often referred to as the “juvenile justice pipeline,” early practices in communities and schools to punish children for minor infractions, end up pushing them into the criminal justice system of which these practices have been demonstrated to impact communities of color the most (Rodriguez, 2018). This phenomenon is referred to as a pipeline because the cumulative disadvantages experienced by people of color in the criminal justice system are often predicated upon criminal histories that unfairly begin with these practices (Metcalf & Chiricos, 2017; Rodriguez, 2018). Thus, understanding the processes underlying decision making in the criminal justice and judicial systems can help to mitigate these inequitable trends.

Our findings suggest that group level examinations of criminal offenders have the potential to produce more equitable evaluations and decisions than is currently present in the criminal justice and judicial systems. Within the broader criminal justice system, this is hardly practiced except with

programs for alternatives to incarceration, probation boards, and through theoretically “perfect” community policing practices that are rarely possible. In the judicial system, however, the established process of jury-based trials would be supported by our findings and fits the needs of disadvantaged groups. This particular process is not without necessary improvements. Individual decisions, which can be impacted by biases, still dominate the majority of decisions leading up to and following jury trials (Hetey & Eberhardt, 2014; Metcalfe & Chiricos, 2017). Our correlational findings suggest that for individuals with greater explicit racial bias, evaluations of Black offenders are more likely to be closely aligned with criminality stereotypes and as individuals that deserve incarceration. Additionally, implicit racial biases are also likely associated with the same evaluations of Black offenders.

Furthermore, judicial changes to include structured sentencing guidelines were intended to reduce bias and perpetual discrimination in the judicial system in past reform (Metcalfe & Chiricos, 2017); however, these changes shifted power to prosecutors and made the process less formal, making pretrial decisions vulnerable to the influence of discriminatory biases. It would also be unreasonable to reform the judicial system so that every decision for accused individuals is made by large groups. Where jury trials come in, is that the bottleneck of the judicial system to process cases as fast as possible has led to the majority of cases being decided by plea bargains (95% of convictions come from guilty plea bargains) that are generally not overseen by group level decisions (Metcalfe & Chiricos, 2017), thus, overall sacrificing just jurisprudence. Reducing the burden of the judicial system, such as through alternatives to arrest whenever possible or redefining criminal offenses, would allow for more jury trials and thus for more group level decisions to be made than they are now.

For individuals that hold more explicit racial bias, the stereotyping of Black individuals as criminal may appear to be a unidirectional relationship. However, the implications for the association of Black individuals and criminality are not limited to perceivers but can also have a profound effect on those with the potential to experience stereotype threat. When asked to imagine a fictional encounter

with the police, Black males identified significant concern and anxiety about being stereotyped as criminals by the police, compared to Black females and White males who did not demonstrate the same levels (Najdowski et al., 2015). Consequently, the experience of stereotype threat in such a situation can lead individuals to engage in self-regulatory processes, which may be perceived as deceptive behavior by law enforcement. This can unintentionally increase the likelihood that an individual “confirms” the criminality stereotype in an encounter with law enforcement (Najdowski et al., 2015).

Limitations and Future Directions

Data collection for these studies began in February 2020 and concluded in March 2021. During this span of time, extensive social, political, and cultural strife occurred in the United States. The coronavirus pandemic began in the U.S. in March of 2020, which included national stress and concern for safety at first but was then marked by xenophobic attitudes toward Asian Americans and internationally, Chinese individuals. These initial responses to the pandemic may have contributed to both positive or negative perceptions of outgroup members, as race and ethnicity became salient. Following this, May of 2020 included the highly visible murder of George Floyd by police in Minneapolis, MN that led to the resurgence of the Black Lives Matter movement. This movement is committed to racial equality and social justice within the criminal justice system. Prejudicial responses and political responses following the murder were also quite extensive. The timing of this event and the consequential responses from the public likely contributed to both enhanced egalitarian attitudes in some participants and/or prejudicial attitudes in others. In addition to both of these historical moments, the campaigning for the presidential election of 2020 was well underway and contributed to continued national stress concerning political, cultural, and social differences in the nation. It is possible that these events influenced how participants responded in our studies. However, the timing is unique because we captured how influential racial biases may be when evaluating criminal offenders during a time when

those concepts were being stressed and tested in real-time. Future research will be able to consider these concepts without the same extent of external influences and compare across time periods.

In addition to strife that was likely influential to results, our final sample from Amazon's MTurk demonstrated low compliance and attentiveness. This determination of the sample is based on our a priori established manipulation and attention check criteria. But in comparison with our other paid sample from Qualtrics, the quality of the MTurk was low. However, even with an inattentive sample, a selection of findings remained consistent and comparable to our other samples and findings.

Future research could consider a similar design comparing different races or with a different ingroup and outgroup comparison of participant samples to targets. The within-subjects design of our studies allowed for comparisons between White and Black criminal offenders. Perceptions of targets with different racial identities may be perceived differently than White and Black individuals. Additionally, future research could consider differences between health interventions and resources based on crime type at a level more in-depth than was possible with the current research. We examined differences of crime level in the current set of studies (low-level drug vs. high-level aggravated assault) and included measures to examine preferences for the target individuals to receive health resources. For the drug crimes, the applicability of health resources and treatment is likely clearer than mental health resources are for an assault charge due to changing public perspectives on mental health applications to criminal behaviors.

Conclusion

The current set of studies offers an exploratory examination of perceptions of accused individuals in the criminal justice system. Our findings suggest that the most important indicators of perceptions of individual offenders are explicit and implicit racial biases at the individual level, rather than the race of the target. Our examination of the ATB and the guilt IAT with both national adult samples and undergraduate samples offers insights into the applicability of the measures and a

reference of performance. The varied significance of relationships between racial bias and evaluations of accused individuals that was observed throughout these studies offers a reference point for similar research in the future, especially considering comparisons that differ based on level and type of crime. This work has implications for criminal justice and judicial reform considering sentencing decisions, prosecutorial discretion, and best practices for individuals (e.g., juvenile courts, adult court personnel, police officers) making decisions at other points in these systems.

Data Tables and Figures

Data Tables for Study One

Table 1

Descriptives for Traits of the Black target with Explicit and Implicit Racial Bias - Study 1

Variable ^a	M	SD	1	2	3	4	5	6	7	8
1. ATB	5.65	0.87	-							
2. Guilt IAT	0.33	0.36	.10	-						
3. Positive Traits	2.94	1.08	-.06	-.29**	-					
4. Negative Traits	4.18	1.02	.21*	.12	-.28**	-				
5. Health Issue	4.85	1.78	-.49**	-.19*	.29**	-.43**	-			
6. Fair Sanctions	3.37	1.97	.42**	.05	-.02	.41**	-.46**	-		
7. Deserve Incarceration	3.37	1.73	.52**	.19*	.33**	.44**	-.81**	.48**	-	
8. Participant Age	57.09	15.73	.16	.36**	-.07	.26*	-.36**	-.21*	.37**	-

Note. ^an = 110 for all variables due to sample restrictions based on attentiveness criteria.

* p < .05, ** p < .004

Table 2

Descriptive Statistics and Correlations between Measures for Study 1

Variable ^a	M	SD	1	2	3	4	5	6	7
1. ATB	5.65	0.87	-						
2. Guilt IAT	0.33	0.36	.10	-					
3. Preference for Health Resources - Black Target	4.78	1.43	-.51**	-.22*	-				
4. Preference for Health Resources - White Target	4.78	1.44	-.47**	-.19*	.96**	-			
5. White Identity	6.60	2.12	.19	.24*	-.23*	-.20*	-		
6. White Guilt	3.37	1.68	-.29**	-.14	.36**	.32**	-.12	-	
7. PCRW	3.59	0.38	-.23*	-.04	.17	.16	.07	.61**	-

Note. ^an = 110 for all variables.

* p < .05, ** p < .005

Data Tables for Study Two

Table 3

Descriptives for Traits of the Black target with Explicit and Implicit Racial Bias - Study 2

Variable ^a	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. ATB	6.07	0.61	-						
2. Guilt IAT	0.06	0.33	.17	-					
3. Positive Traits	3.33	0.86	-.25*	-.23**	-				
4. Negative Traits	3.47	0.80	.36**	.05	-.44**	-			
5. Health Issue	5.99	0.86	-.41**	.07	.20*	-.35**	-		
6. Fair Sanctions	2.15	1.25	.41**	.05	-.27*	.40**	-.55**	-	
7. Deserve Incarceration	1.94	1.18	.45**	-.09	-.25*	.37**	-.83**	.66**	-

Note. ^a*n* = 102 for all variables except for ATB (*n* = 97) since Black participants were not presented with the scale.

* *p* < .05, ** *p* < .005.

Table 4

Descriptive Statistics and Correlations between Measures for Study 2

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. ATB	97	6.07	0.61	-					
2. Guilt IAT	102	0.06	0.33	.17	-				
3. Preference for Health Resources - Black Target	102	6.05	0.95	-.44**	.09	-			
4. Preference for Health Resources - White Target	102	6.01	1.01	-.39**	.11	.94**	-		
5. White Identity	50 ^a	6.05	1.96	.15	.01	-.34*	-.40*	-	
6. White Guilt	50 ^a	4.93	1.79	-.50**	-.10	.44**	.33*	-.01	-

Note. ^a*n* = 50 because only White participants were presented with scales for White Identity and White Guilt.

* *p* < .05, ** *p* < .006

Data Tables for Study Three

Table 5

Descriptives for Traits of the Black target with Explicit and Implicit Racial Bias - Study 3

Variable ^a	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. ATB	5.92	0.72	-						
2. Guilt IAT	0.10	0.33	.07	-					
3. Positive Traits	3.29	0.83	-.20*	-.06	-				
4. Negative Traits	4.53	0.74	.09	.06	-.42**	-			
5. Mental Health Issue	4.25	1.49	-.45**	-.11	.42**	-.18*	-		
6. Fair Sanctions	3.61	1.44	.12	-.08	-.42**	.42**	-.21*	-	
7. Deserve Incarceration	3.02	1.39	.35**	.07	-.44**	.41**	-.60**	.30**	-

Note. ^a*n* = 124 for all variables except for ATB (*n* = 108) since Black participants were not presented with the scale.

* *p* < .05, ** *p* < .005

Table 6

Descriptive Statistics and Correlations between Measures for Study 3

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. ATB	108	5.92	0.72	-					
2. Guilt IAT	124	0.10	0.33	.07	-				
3. Preference for Health Resources - Black Target	124	4.92	1.16	-.46**	-.09	-			
4. Preference for Health Resources - White Target	124	4.83	1.14	-.50**	-.07	.94**	-		
5. White Identity	65 ^a	6.27	1.64	.20	-.15	.08	.14	-	
6. White Guilt	65 ^a	4.90	1.86	-.58**	-.22	.57**	.58**	.09	-

Note. ^a*n* = 65 because only White participants were presented with scales for White Identity and White Guilt.

* *p* < .05, ** *p* < .006

Data Tables for Study Four

Table 7

Descriptives for Traits of the Black target with Explicit and Implicit Racial Bias - Study 4

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. ATB	99	4.84	1.17	-							
2. Guilt IAT	58 ^a	0.11	0.36	.33*	-						
3. Positive Traits	111	3.55	1.58	-.26*	-.07	-					
4. Negative Traits	111	5.19	0.96	.02	.24	-.29**	-				
5. Mental Health Issue	111	4.19	1.73	-.04	-.19	.57**	-.26*	-			
6. Fair Sanctions	111	4.65	1.68	.19	.05	.13	.36**	-.06	-		
7. Deserve Incarceration	111	4.60	1.59	.27**	.32*	.04	.17	-.35**	.44**	-	
8. Participant Age	111	39.11	11.45	.10	.29*	-.18	.09	-.28**	.04	.22*	-

Note. ^a*n* = 58 for all IAT correlations except with the ATB in which data was missing for three participants so *n* = 55

* *p* < .05, ** *p* < .005

Table 8

Descriptive Statistics and Correlations between Measures for Study 4

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. ATB	99 ^b	4.84	1.17	-					
2. Guilt IAT	55 ^a	0.10	0.33	.33*	-				
3. Preference for Health Resources - Black Target	111	4.55	1.46	-.06	-.19	-			
4. Preference for Health Resources - White Target	111	4.59	1.34	-.06	-.15	.93**	-		
5. White Identity	99 ^b	6.83	1.64	.23*	-.16	-.21	-.15	-	
6. White Guilt	99 ^b	3.90	1.63	-.15	-.35*	.50**	.44**	-.36*	-

Note. ^a*n* = 55 for all correlations due to missing data except with the preferences for health resources for both targets in which *n* = 58

^b*n* = 99 for these self-report variables due to missing data

* *p* < .05, ** *p* < .006

Appendix A

Electronic Case Records for Fictional Targets accused of Drug Crimes (Black, Multiracial, White)

Figure 1

Multiracial Electronic Case Record

DISTRICT COURT OF MARYLAND	
Go Back	
Case Information	
<p>Court System: DISTRICT COURT LAKE COUNTY – CRIMINAL SYSTEM Case Number: 7D1209346 Tracking No: 011002378 Case Type: CRIMINAL District Code: 04 Location Code: 07 Document Type: SUMMONS Issued Date: 03/14/2010</p>	
Defendant Information	
<p>Defendant Name: JONES, MICHAEL Race: MULTIRACIAL Sex: M Height: 5'9" Weight: 165 DOB: 10/08/1970 Address: 723 HOPE SPRINGS RD City: DOWNEY State: MD Zip Code: 20141</p>	
Charge(s) and Disposition Information	
<i>(Each charge is listed separately. The disposition is listed below the charge)</i>	
<p>Charge No: 004 Description: CDS: POSS-HEROIN Statute: CR.5.601.(a)(1) Description: CDS: POSS-HEROIN Amended Date: CJIS Code: 7 0873 MO/PLL: Probable Cause: X Incident Date From: 03/10/2010 to 03/11/2010</p>	
Disposition:	
<p>Plea: OTHER PLEA Disposition: NOLLE PROSEQUI Disposition Date: 05/14/2011 Fine: \$25,000.00 Court Costs: \$0.00 CICF: \$0.00 Fine: \$0.00 Court Costs: \$0.00 CICF: \$0.00 PBJ End Date: Probation End Date: Restitution Amount: \$0.00 Jail Term: Yrs: 20 Mos: 0 Days: 0 Suspended Term: Yrs: Mos: Days: Credit Time Served: 0.00</p>	
Event History Information	
Event Date	Comment
SUM: 03/14/2010	SUM ISSUED 0221656 AGENCY CB 09
SUMS: 05/20/2011	SUM SERVED 0874843
MOTN: 06/18/2012	SAO TO NP 6/19AM RM 4
<p><i>This is an electronic case record. Full case information cannot be made available either because of legal restrictions on access to case records found in Maryland rules 16-1001 through 16-1011, or because of the practical difficulties inherent in reducing a case record into an electronic format.</i></p>	

Figure 2

Black Electronic Case Record

DISTRICT COURT OF MARYLAND		
Go Back		
Case Information		
Court System: DISTRICT COURT MONTGOMERY COUNTY – CRIMINAL SYSTEM		
Case Number: 54H03873 Tracking No: 00003402245		
Case Type: CRIMINAL		
District Code: 08 Location Code: 05		
Document Type: SUMMONS Issued Date: 06/13/2013		
Defendant Information		
Defendant Name: DAVIDSON, TYRONE		
Race: BLACK, AFRICAN AMERICAN		
Sex: M Height: 6'2" Weight: 185 DOB: 08/15/1966		
Address: 68 ROCKVILLE PLACE ST		
City: MONTGOMERY State: MD Zip Code: 20821		
Charge(s) and Disposition Information		
<i>(Each charge is listed separately. The disposition is listed below the charge)</i>		
Charge No: 004 Description: CDS: POSS-HEROIN		
Statute:	CR.5.601.(a)(1)	Description: CDS: POSS-HEROIN
Amended Date:	CJIS Code: 1 0573	MO/PLL: Probable Cause: X
Incident Date From: 06/10/2013 to 06/10/2013		
Disposition:		
Plea: OTHER PLEA		
Disposition: NOLLE PROSEQUI Disposition Date: 12/20/2013		
Fine: \$25,000.00 Court Costs: \$0.00 CICF: \$0.00		
Fine: \$0.00 Court Costs: \$0.00 CICF: \$0.00		
PBJ End Date:	Probation End Date:	Restitution Amount: \$0.00
Jail Term:	Yrs: 20 Mos: 0	Days: 0
Suspended Term:	Yrs: Mos: Days:	
Credit Time Served: 0.00		
Event History Information		
Event Date	Comment	
SUM: 12/21/2013	SUM ISSUED 01139 AGENCY CB 002	
SUMS: 04/10/2014	SUM SERVED 0701440	
MOTN: 05/12/2014	SAO TO NP 6/19AM RM 4	
<i>This is an electronic case record. Full case information cannot be made available either because of legal restrictions on access to case records found in Maryland rules 16-1001 through 16-1011, or because of the practical difficulties inherent in reducing a case record into an electronic format.</i>		

Figure 3

White Electronic Case Record

DISTRICT COURT OF MARYLAND

[Go Back](#)

Case Information

Court System: **DISTRICT COURT FREDERICK COUNTY – CRIMINAL SYSTEM**
 Case Number: **3T0005742** Tracking No: **07100171852**
 Case Type: **CRIMINAL**
 District Code: **10** Location Code: **01**
 Document Type: **SUMMONS** Issued Date: **09/26/2012**

Defendant Information

Defendant Name: **WILLIAMS, CONNOR**
 Race: **WHITE, CAUCASIAN**
 Sex: **M** Height: **6'0"** Weight: **180** DOB: **05/28/1968**
 Address: **9302 RODMAN RD**
 City: **FREDERICK** State: **MD** Zip Code: **21707**

Charge(s) and Disposition Information

(Each charge is listed separately. The disposition is listed below the charge)

Charge No: **004** Description: **CDS: POSS-HEROIN**
 Statute: **CR.5.601.(a)(1)** Description: **CDS: POSS-HEROIN**
 Amended Date: CJIS Code: **1 0573** MO/PLL: Probable Cause: **X**
 Incident Date From: **09/23/2012** to **09/23/2012**

Disposition:

Plea: **OTHER PLEA**
 Disposition: **NOLLE PROSEQUI** Disposition Date: **05/14/2013**
 Fine: **\$25,000.00** Court Costs: **\$0.00** CICF: **\$0.00**
 Fine: **\$0.00** Court Costs: **\$0.00** CICF: **\$0.00**

PBJ End Date: Probation End Date: Restitution Amount: **\$0.00**
 Jail Term: Yrs: **20** Mos: **0** Days: **0**
 Suspended Term: Yrs: Mos: Days:
 Credit Time Served: **0.00**

Event History Information

Event Date	Comment
SUM: 09/26/2012	SUM ISSUED 071226 AGENCY CB 13
SUMS: 01/10/2013	SUM SERVED 080103
MOTN: 06/18/2014	SAO TO NP 6/19AM RM 4

This is an electronic case record. Full case information cannot be made available either because of legal restrictions on access to case records found in Maryland rules 16-1001 through 16-1011, or because of the practical difficulties inherent in reducing a case record into an electronic format.

Appendix B

Screen Captures of Guilt IAT

Figure 4

Captured Image of Guilt IAT Directions including Race and Guilt/Not Guilty Categories

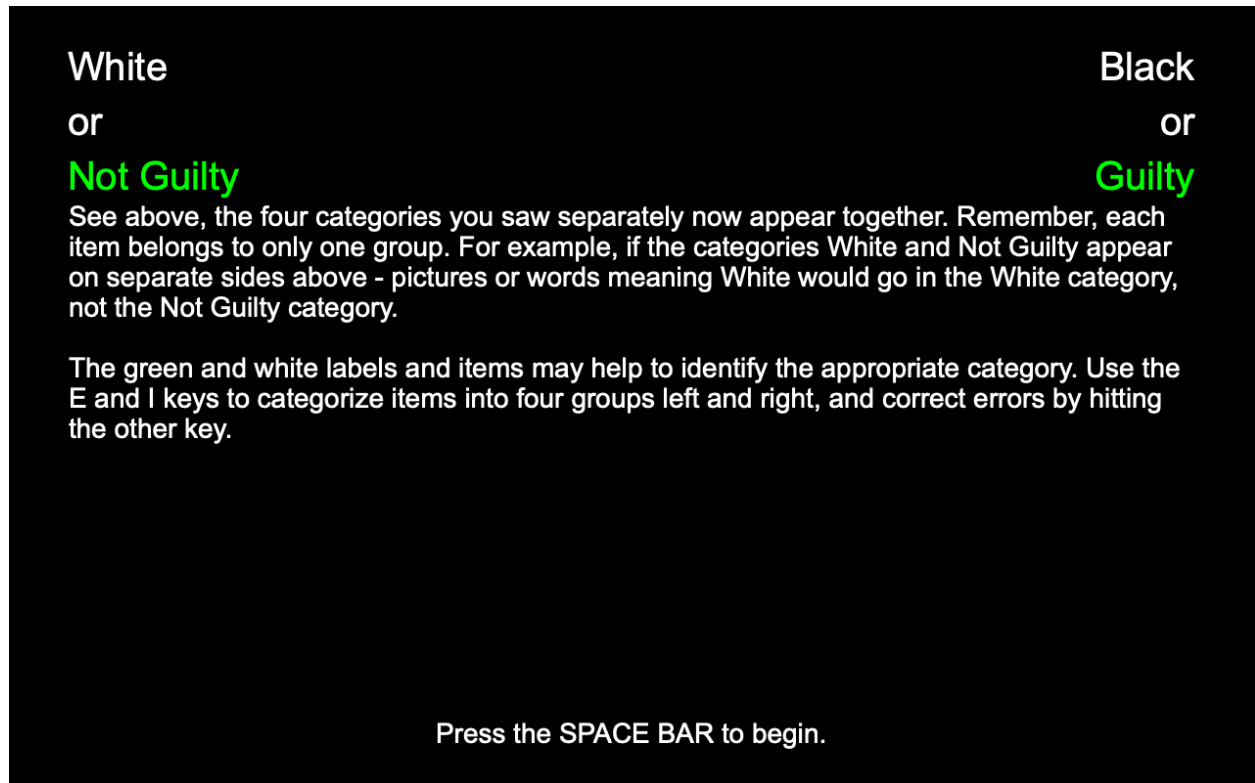


Figure 5

Captured Image of Guilt IAT with Categories and Image of a White Face

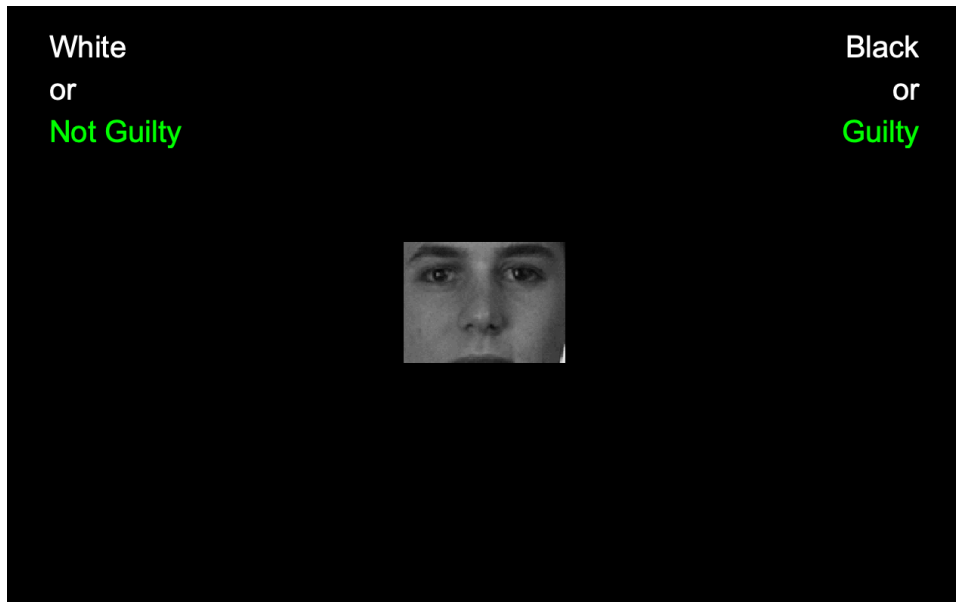
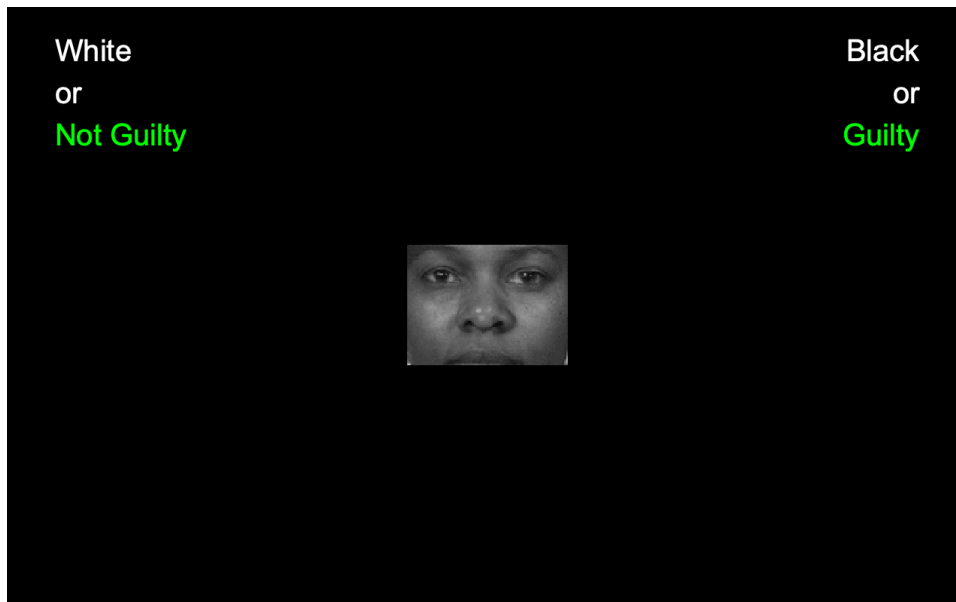


Figure 6

Captured Image of Guilt IAT with Categories and Image of a Black Face



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