5-2018

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Effect of Implicit and Explicit Prejudice on Perceptions of Drug Users of Different Races

A thesis submitted in partial fulfillment of the requirement for the degree of Bachelor of Science in Neuroscience from The College of William and Mary

by

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Accepted for Honors

[Signatures]

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Williamsburg, VA
May 1, 2018
Effect of Explicit and Implicit Prejudice on Perceptions of Drug Users of Different Races

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College of William and Mary
Abstract

Even to this day, members of the Black population involved in drug use are being subjected to high rates of imprisonment and are receiving a lower quality of health care in comparison to White drug users. This study proposes that the disparities in how society treats Black drug users are in part due to the way people’s perception of drug users differs based on the race of the target. In addition, this study sought to examine how these perceptions are predicted by implicit and explicit racial prejudice. To test these research questions, college students (n = 99) were randomly assigned to view an electronic court case record of a White or Black drug user or a drug user of an unspecified race, and asked to make judgments about them; explicit and implicit bias towards Blacks was measured. Results revealed that the higher the levels of explicit prejudice towards Black drug users and drug users of an unspecified race, the more they are associated with negative stereotypical traits and the more people predict them to be able to commit more serious crimes in the future, compared to White drug users. We also found that people perceived that Black drug users would be less successful in the future compared to drug users of an unspecified race if provided with health treatment. Gaining a better understanding of the underlying reasons behind racial disparities in the criminal justice system is important to instigate reforms to the system and to the quality of health care offered to drug users of different races.
Effect of Explicit and Implicit Prejudice on Perceptions of Drug Users of Different Races

Racial disparities in incarceration rates have plagued the United States for decades. According to “The Impact of Crack Cocaine on Black America” (Hendricks & Wilson, 2013), 85% of crack cocaine users who were incarcerated during the American crack epidemic between 1984 and the early 1990s were Black. Although today’s heroin epidemic is mostly perpetuated by the suburban, White, middle-class population (Cicero, Ellis, Surratt, & Kurtz, 2014), according to the Bureau of Justice Statistics, Blacks still make up more than 50% of drug users who get arrested. Simultaneously, more programs have been designed to reduce the imprisonment of White drug users, to encourage police officers to direct them to social workers instead of immediately putting them in jail and to provide easier access to medical attention and treatment. In contrast, Black drug users typically get less assistance for life-threatening medical issues (Netherland & Hansen, 2016). The purpose of the current study is to explore differences in perceptions of Black and White drug users, and whether these perceptions are affected by implicit and explicit prejudice. This is imperative to help us understand the causes behind disparities in health treatment and the likelihood of incarceration between Black and White drug users.

There are disparities in the comprehensive health treatment offered to racial minorities compared to that offered to Whites. This is often associated with the health facilities that are available to racial minorities and on the cultural sensitivity of the health programs. A recent study by Acevedo and colleagues (2015) studied the health treatments offered to Whites and to minorities. The treatment can consist of inpatient admissions, outpatient rehabilitation, or programs that offer partial hospitalization. Of particular interest is patients’ likelihood of treatment engagement, which refers to the provision of more services within a month of being on
medical treatment. More treatment engagement was connected to a lower probability of abusing drugs afterwards and of getting arrested. The researchers observed the start of treatment, treatment engagement, and incarceration rates based on race in samples of adult patients grouped by state (Acevedo et al., 2015). They reported that in most states, Blacks tended to have lower treatment initiation and treatment engagement rates compared to Whites. Even though it was not consistent across all the states they examined, they also found that in a few of those states, patients who experienced treatment engagement had lower arrest rates afterwards. Not only could the health of minorities be ameliorated if they were provided with better support and health resources, but having better health care options could also limit the harsh effects of the criminal justice system.

There are also racial disparities in whether drug users are determined as eligible to receive health treatment in lieu of incarceration. Black drug users are more prone to incarceration compared to White drug users even though both races use drugs at similar rates (Nicosia, MacDonald, & Pacula, 2017). When it comes to drug sentences, this disparity has serious consequences on the lives of imprisoned Blacks. Being incarcerated leads to the loss of various rights such as the ability to vote or to receive aid in the form of welfare programs, veteran advantages, and food stamps (Olson, 2016). They may also struggle to find a well-paid job after being released from prison, which makes it virtually impossible to obtain proper health care. As a result of these disparities, the system promotes a vicious cycle that is unfair and deleterious to the Black population.

One reason for the difference in the treatment between Blacks and Whites may be the dichotomy in cultural stereotypes between the two groups. Activation of these cultural stereotypes is contingent on the visual cues that perceivers use to associate individuals with
particular social categories such as race, gender, or age. This process is termed social categorization (Bartholow & Dickter, 2008). People use social categorization in order to reduce the cognitive load associated with individuating others, or distinguishing every individual with whom they interact. By grouping individuals together by their social group, perceivers are able to simplify the task of forming their perception of each individual, and avoid having to understand each one, separately. The salience of a certain categorization can dominate how perceivers choose to form their impression (Macrae, Bodenhausen, & Milne, 1995). Furthermore, the perceivers’ own goals and how prejudiced they are towards different social groups can also play an influential role in social categorization. These ways of categorizing people allows perceivers to form an impression of the target quickly and conveniently. However, they can simultaneously cause stereotype activation, which in turn, leads to biased judgments about the target that are not based on his or her own unique characteristics (Macrae & Bodenhausen, 2000). Due in part to the frequent distorted portrayal of Blacks in the media, Blacks are often perceived as more violent, impulsive, and menacing than Whites, and are often unfairly stereotyped as criminals and drug users (Najdowski, Goff, & Bottoms, 2015; Welch, 2004). These stereotypes lead people to make unreliable predictions concerning the traits and behaviors of Black individuals and instigate the formation of negative impressions about Black drug users (Kunda & Thagard, 1996).

Accordingly, crimes that Blacks commit tend to be perceived as more abhorrent than if those same crimes were committed by Whites, and “unlike progressive trends in other racial attitudes, associations between race and crime have changed little in recent years” (Duncan, 1976; Pager, 2008, p. 3). When Black people commit a crime, people have the tendency to believe that it is due to them being supposedly inferior, whereas when White people commit a
crime, people tend to blame it on environmental circumstances such as being under the poverty line (Olson, 2016). Additionally, since Blacks are incarcerated more frequently than other races, they are often targeted as the main source of the U.S.’s drug problem and are more likely to be associated with drug use and crimes in general, by the public (Welch, 2007). Welch (2007) reported that local media sources often depict Blacks in more threatening situations than Whites, which makes the public grow more wary of Black criminal suspects than White criminal suspects.

To investigate whether the punishment of inmates in prison was related to race and whether this was due to negative stereotypes that prison guards have about Black inmates being more violent, confrontational, and criminal, Olson (2016) looked specifically at how likely Black inmates were to be put in solitary confinement, which is one of the harshest types of punishments enforced in prisons, compared to inmates of other races. They found that there is a racial bias against Black inmates and that they have a 31.6% chance of being subjected to solitary confinement compared to White inmates, who have a 25.6% chance (Olson, 2016). Being forced into solitary confinement, in turn, eventually leads to higher rates of recidivism, or inclination to commit a crime again, among Black inmates. This perpetuates the cycle by causing them to be more prone to get arrested and, then once in jail, they become more likely to undergo harsh punishment that encourages even more criminal actions.

Race-based judgments have a profound impact on the treatment of Black and White drug users and on the level of sympathy and understanding that they each receive (Jussim, Eccles, & Madon, 1995). Even though Whites are increasingly using illegal drugs, the public still has the tendency to picture drug users as people from Black populations in inner-city neighborhoods that deal cocaine and crack (Gaston, 2016). Furthermore, they also perceive Black drug users more
negatively than Whites due to more Blacks moving into previously predominantly White suburban areas. This makes society more likely to unjustifiably blame Blacks for the problem of increased drug use among suburban White populations and to judge them more harshly if they use drugs (Welch, 2007). At the same time, it makes them less likely to view Whites as negatively for also doing drugs. A recent study by Leiber, Peck, Lugo, & Bishop (2017) investigated how this perception of drug users of different races also affected juvenile court outcomes. Researchers observed that Black youth accused of illegal drug use were not only more likely to be perceived as threatening and more likely to get arrested but also more likely to “be held in secure detention and move deeper into the juvenile justice system” (p. 1812), while White youth that also engaged in illegal drug use were not perceived in such a negative manner and were subjected to less severe consequences such as serving less time in juvenile detention.

Society’s perception of Black drug users may be influenced by both explicit and implicit racial prejudice that individuals hold. While explicit racial prejudice refers to the conscious attitudes that people have about a certain racial group, implicit racial prejudice focuses on attitudes people are not aware they possess but that nevertheless affect the way they perceive the outgroup (Dickter, Forestell, & Bass, 2017; Greenwald & Krieger, 2006). Explicit measures tend to be used to predict the “behavior and intentions” of the perceiver (Perugini, 2005, p. 30). The more contact people have with individuals belonging to different races (known as outgroups), the less explicit prejudice they usually have (Greenwald, McGhee, & Schwartz, 1998). However, implicit measures can be better predictors of judgment than explicit measures (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). To assess the predictive validity of explicit and implicit measures, researchers compared the effect size of implicit-criterion correlations with explicit-criterion correlations. They discovered that the predictive validity of explicit measures, also
known as self-report measures, was lower than the predictive validity of implicit measures (e.g., the Implicit Association Test) when it came to predicting judgments and behaviors toward individuals of different racial groups, due to the stigma associated with racism (Greenwald et al., 2009). Research has yet to examine whether explicit and implicit bias leads to different perceptions of Black and White drug users.

The Current Study

The objective of the current study is to investigate perceptions of Black drug users versus White drug users to further elucidate the basis behind the recent shift in the American criminal justice system’s response to drug epidemics (Cicero et al., 2014; Vashishtha, Mittal, & Werb, 2017). Furthermore, this study aims to analyze the role of implicit and explicit bias in predicting judgments of drug users varying by race. My central research question is as follows: How are people’s perception of drug users different based on the race of the target? In addition, how are these perceptions influenced by implicit and explicit racial prejudice? To test these research questions, college students were randomly assigned to view an electronic court case record of a White, Black, or unspecified race drug user and asked to make judgments about them. I predicted that, compared to White drug users, Black drug users would be perceived more negatively and as more likely to commit a more severe crime in the future. Additionally, it was hypothesized that participants would recommend incarceration over health treatment more so for Black drug users compared to White drug users. It was also expected that, even if participants were led to believe that the drug users would be provided with health treatment, Black drug users would be perceived as less successful compared to White drug users. With regard to the perceptions of the drug user of an unspecified race that served as a control condition, we expected participants to make the assumption that the target is a Black drug user due to people’s association of the Black
population with crimes such as drug use. Thus, it was expected that perceptions of the drug user of an unspecified race would be similar to those of the Black drug user.

Furthermore, I hypothesized that implicit and explicit prejudice would predict perceivers’ impression of the target and their likelihood of recommending incarceration versus the provision of health resources, but implicit measures would be a better predictor of these variables than explicit measures. I aimed for my study to emphasize how impression formation can perpetuate racial inequalities when it comes to mass incarceration as well as to high quality health treatment.

Method

Participants

Ninety-nine (41 females, 58 males) undergraduate students at the College of William and Mary participated to receive credit for their introductory psychology classes. The sample consisted of 7 African Americans, 12 Asians, 8 Hispanics, and 72 Whites. The mean age was 19.1 (SD = 0.82). All procedures were approved by the school’s Protection of Human Subjects Committee, and an informed consent form was obtained from all the participants.

Materials

Electronic Case Record. An artificial electronic case record depicted either a White drug user, a Black drug user, or a drug user of an unspecified race. The White drug user and Black drug user case records identified both the name and race of the individual while the case record without a specified race showed a race-neutral name (see Appendices A, B, C respectively). Next, they were asked to fill out an online survey to assess whether or not they
correctly remembered the details of the case record they were given; this served as a manipulation check as well (see Appendix D).

**Evaluations of Perceptions of Target.** A series of questions served to evaluate the participants’ perception of the particular drug user, which assessed how closely they associated the drug user of a certain race with related racial stereotypes. For instance, they responded to statements such as, “On a scale from 1-7, how afraid would you be of encountering this person on the street” (“Not Afraid At All” to “Afraid” to “Very Afraid”), “How likely do you believe it is for this person to commit domestic abuse,” and “How likely do you believe it is for this person to commit physical/sexual assault” (“Not at all” to “Somewhat” to “Extremely”). These types of questions serve to collect information about each participant’s perception of the drug user (see Appendix E).

**Race Implicit Association Test (IAT).** The IAT is a reaction time task in which participants classify words into superordinate categories in various blocks. In the first block, participants categorized six different pictures of White American faces with good words (i.e., marvelous, superb, pleasure, beautiful, joyous, glorious, lovely, wonderful) with the single response key, and they also categorized six different pictures of Black American faces with bad words (i.e., tragic, horrible, agony, painful, terrible, awful, humiliate, nasty) by using another response key. In the second block, the response keys are switched so that the pictures of White Americans share a response key with the bad words and the pictures of the Black Americans share a response key with the good words. The blocks appear in a different order across the participants. Faster reaction times when White Americans and good words are paired together compared to Black Americans suggest a bias towards Whites being good people in relation to
Blacks. The exact timing and procedure of the IAT are further discussed in Greenwald et al. (1998).

**Evaluation of Preferences for Incarceration vs. Health Treatment.** In order to evaluate participants’ perception of drug users and addicts and the extent to which they support incarceration or provision of health resources, they were asked to express how they feel about drug users and addicts in general through statements such as “On a scale from 1-7, how disappointed do you tend to feel towards drug addicts” or “On a scale from 1-7, how angry do you tend to feel towards drug users” (“Not at all” to “Somewhat” to “Extremely”). They were also asked questions about what societal measures they support when it comes to drug users and addicts through statements like “How responsible should our society be in allocating resources to provide health care to drug users?” measured on a 7-point scale (“Not at all” to “Somewhat” to “Extremely”). Furthermore, they were asked to demonstrate whether they prefer incarceration or allocation of health care as a solution for drug users through statements such as “In your opinion, do drug users who committed a crime deserve health treatment over incarceration” or “In your opinion, do drug users who committed a crime deserve incarceration over health treatment” which they answered with “yes,” “not sure,” or “no” (see Appendix F).

**Attitudes Towards Blacks.** Self-reported racial prejudice against Blacks was measured by the Attitudes Towards Blacks Scale (ATB; Brigham, 1993, $\alpha = .88$). This measure is 20 items long and is used to evaluate participants’ agreement with statements such as “Generally, Blacks are not as smart as Whites” and “I would rather not have Blacks live in the same apartment building I live in” which are coded on a 7-point scale (“strongly disagree” to “strongly agree”). In addition, there are also statements such as “Black and White people are inherently equal” and “I get very upset when I hear a White make a prejudicial remark about Blacks” which are
reverse-coded on a 7-point scale (“strongly disagree” to “strongly agree”). Higher scores on the ATB reflect higher levels of explicit racial prejudice against Blacks (see Appendix G).

**Family History.** In order to account for participants who have had direct experiences with drug users which could influence their perception and whether or not they support incarceration or health care, they were also asked questions such as “Do you have any family members or friends who have been addicted to drugs?” “Do you have any family or friends who have been arrested for the possession of drugs?” and “Do you have any family members or friends who have been provided with health resources such as overdose reversal medication, drug rehabilitation programs, etc?” which they answered by selecting “yes,” “not sure,” or “no” (see Appendix H).

Furthermore, they were asked demographic information questions about their age, college class, gender, and race (see Appendix I).

**Paradigm and Procedure**

Participants were recruited through the College of William and Mary SONA Systems (wm.sona-systems.com). They were seated in small groups at private computer stations in a psychology lab room. After signing an informed consent form, they were presented with the artificial electronic case record. Participants were instructed to review the case record for three minutes and to pay attention to as much detail from it as they could, as they would be asked questions about it later. After looking at the artificial electronic case records (see Appendix A), participants completed a Qualtrics survey where they answered manipulation checks questions (see Appendix B). Next, they answered the questions evaluating the drug user. Upon completion of the first survey, participants took the IAT test which was followed by the scales described
above. In addition, the last survey also included some demographic questions and family history questions that were of relevance to the study. At the end of the experiment, each participant was debriefed before being dismissed. The average participant took about 45 minutes to complete the study.

**Results**

All participants reported the race of the drug user from the electronic case record correctly for the two experimental conditions (White target and Black target). As for the participants in the control condition, they identified the targets’ race as Black (n = 2), White (n = 18), or unspecified (n = 12). See Table 1 for descriptive statistics about ATB and IAT scores, and physical/sexual assault, negative traits, positive traits, success if provided health treatment over incarceration, and preference for incarceration over health treatment.

**Perceptions of Target**

To examine whether the perception of the target is affected by the target’s race and the ATB or IAT scores, a series of multiple regression analyses were conducted with the following dependent variables: physical/sexual assault, negative traits, positive traits, success if provided health treatment over incarceration, and preference for incarceration over health treatment. Separate regressions were conducted for each bias measure (i.e., IAT and ATB).

**Physical/Sexual Assault**

The model examining condition and ATB was significant, $F(3, 95) = 3.65, p = .015, R^2 = .10$. There was no effect of ATB nor condition. However, there was a marginally significant ATB x condition interaction, $\beta = .58, p = .078$. There was no effect for the White target
condition. As for the Black target and control condition, the higher the ATB score the greater the likelihood of physical/sexual assault.

The model examining condition and IAT was significant, $F(3, 95) = 2.74, p = .048, R^2 = .08$. There was no effect of condition. However, there was a marginal effect of IAT, $\beta = -.54, p = .058$. This effect was qualified by an IAT x condition interaction, $\beta = .72, p = .013$, which demonstrated that for the control target, the higher the IAT score the greater the likelihood of physical/sexual assault.

**Positive Traits**

The model examining condition and ATB was not significant, $F(3, 94) = .81, p = .491, R^2 = .03$; there were no significant effects.

The model examining condition and IAT was not significant, $F(3, 94) = .63, p = .599, R^2 = .02$; there were no significant effects.

**Negative Traits**

The model examining condition and ATB was significant, $F(3, 95) = 4.65 , p = .004, R^2 = .13$. There was no effect of ATB nor condition. As can be seen in Figure 1, however, there was a significant ATB x condition interaction, $\beta = .65, p = .044$. There was no effect for the White target condition. As for the Black target and control condition, the higher the ATB score the more negative traits associated with the target.

The model examining condition and IAT was not significant, $F(3, 95) = 1.57, p = .202, R^2 = .05$; there were no significant effects.
Health vs. Incarceration

Success in Future If Provided Health Treatment

The model examining condition and ATB was not significant, $F(3, 95) = 2.14, p = .100$, $R^2 = .06$; there were no significant effects.

The model examining condition and IAT was marginally significant, $F(3, 95) = 2.60, p = .057$, $R^2 = .08$. There was no effect of IAT score. As demonstrated in Figure 2, there is an effect of condition such that the mean for the control condition ($M = 2.85, SE = 0.21$) was greater than the mean for the Black condition ($M = 2.15, SE = 0.21$). The White condition ($M = 2.23, SE = 0.21$) did not significantly differ from the other two. There was no interaction.

To examine whether family and friend history of drug use affected whether participants favored health treatment over incarceration for future success as a function of condition, a between-subjects ANOVA with condition as the independent variable and family/friend history as a covariate was conducted. None of the analyses were affected by this covariate.

Incarceration over Health

The model examining condition and ATB was significant, $F(3, 95) = 3.07, p = .031$, $R^2 = .09$, but there were no significant effects.

The model examining condition and IAT was not significant, $F(3, 95) = .37, p = .776$, $R^2 = .01$; there were no significant effects.

Discussion

The purpose of this study was to analyze the perception of Black and White drug users and how these perceptions were each influenced by implicit and explicit prejudice. Our
hypothesis that the target race would affect people’s perception of drug users was not supported. By itself, we found that the condition that participants were in (White, Black, or unspecified race) did not have a significant effect on how they viewed the target. However, the interaction of target race and bias together affected the perception of drug users when it came to general ratings and their likelihood of committing future violent crimes. Our prediction that explicit and implicit bias would predict perceptions of the target was partially supported.

Contrary to our hypothesis, Black drug users were not perceived more negatively than White drug users. This is surprising because of the stereotypes that are normally associated with Black criminals that usually lead people to form negative opinions of these individuals. Based on previous research, people tend to view them as more violent and confrontational than White criminals (Olson, 2016). Consequently, this finding is inconsistent with research that showed that the public is generally more judgmental and wary of Black drug users than Whites drug users (Gaston, 2016; Leiber et al., 2017; Welch 2007). A possible reason that explains why we obtained these results could be because participants did not want to seem prejudiced. Due to this, they could have shaped their answers to conform to societal norms. In support of this, previous research examining racial bias has determined that social desirability plays an important role in the judgments of individuals regarding racial minorities, leading to the under-reporting of negative judgments (Greenwald et al., 2009). Future research should further examine the differences between perceptions of Black drug users and White drug users and possibly Blacks and Whites who have committed other types of crimes, in order to obtain a better understanding of how stereotypes and bias contribute to people’s judgments.

The current study also determined that participants’ rating of future success if given health treatment in lieu of incarceration was significantly different between the Black target and
the control target; the White target condition did not significantly differ from either of the other conditions. The Black target was perceived to be less successful in the future if he obtained health care compared to the control target. This finding supports our hypothesis that even when Black drug users are provided with health resources, people do not perceive those resources to be as beneficial to them as they are to drug users of an unspecified race. This finding is also consistent with previous studies suggesting that Black drug users are more likely to be punished in the judicial system than White drug users (Leiber et al., 2017). Furthermore, studies have reported that Blacks had lower health treatment initiation and engagement rates than drug users of an unspecified race, and after undergoing treatment, they received lower salaries and were also not as successful as Whites in retaining a job (Acevedo et al., 2015, 2018).

With regard to the likelihood of committing more severe crimes as well as perceptions of negative traits, perceptions of the White target did not vary as a function of bias. However, perceptions of the Black and control targets were predicted by explicit prejudice. We found that for those conditions, the higher the level of explicit prejudice, the greater the likelihood of predicting that the target could commit physical/sexual assault. In addition, there was no effect for the White target condition, but for the Black and control conditions, the higher the explicit bias, the more negative traits were associated with the target. The findings with the Black target supported our hypothesis based on previous research that showed that explicit bias predicted perceivers’ “behavior and intentions” and the more explicit bias perceivers had, the more they would be likely to report that Blacks could commit more severe crimes in the future and the more negative their opinions of them would be (Perugini, 2005, p. 30; Greenwald et al., 1998). The findings with the control target, however, were perplexing. That is, if participants in the control condition viewed the target of an unspecified race as a Black drug user, which would be
supported by research showing that the public still pictures drug users to be members of the Black population from underprivileged neighborhoods (Gaston, 2016), this result would be expected. However, upon inspection of the racial identifications that people in the control condition reported, we found that more people pictured the drug user to be White or of an unknown race than Black. This could be due to participants picturing someone that is of the same race that they are when forming their perception of the target.

Furthermore, we found that explicit bias had no effect on whether people would be more likely to recommend incarceration over health treatment to Black drug users. Explicit bias might not have influenced people’s preference for incarceration or health treatment when it came to Black drug users because participants might have consciously tried not to respond to questions in a prejudiced way or might not have been as prejudiced as the general American population. As college students, they might also have more close contact to Blacks than members of the general population, which, as research shows, makes them less inclined to be threatened by Blacks (Dickter, Gagnon, Gyurovski, & Brewington, 2014).

As for implicit prejudice, we found that while there was no effect of condition alone, the interaction between implicit bias and condition caused there to be an effect for the control target condition such that the higher the implicit bias the greater the likelihood of predicting that the target could commit physical/sexual assault. Unlike our predictions, the control target was not assumed to be a Black drug user, and was most frequently perceived to be either a White drug user or a drug user of an unknown race. Consequently, this finding could be due to participants showing implicit prejudice towards drug users in general, without an inclination for a certain race. This prejudice towards drug users might have led them to perceive the drug user of an unspecified race as more likely to commit a more serious crime like physical/sexual assault in
the future. This finding is inconsistent with previous research that shows that the public tends to associate crimes with members of the Black population and tend to perceive Black drug users as more prone to commit more severe crimes compared to drug users of other races (Leiber et al., 2017; Welch, 2007). Additionally, countering our predictions, implicit bias had no effect on negative traits nor on the likelihood of recommending incarceration for Black drug users over health treatment. These results contradict previous studies that highlighted that people held more negative attitudes towards Black drug users and had a stronger tendency to judge them harshly and to support their imprisonment in comparison to White drug users (Gaston 2016; Leiber et al., 2017; Welch 2007).

Taken together, the current results suggest that implicit and explicit prejudice affects different aspects of people’s impression of Black and White drug users. A study by Greenwald et al. (2009) demonstrated that with regard to race, the predictive validity of implicit prejudice is higher than the predictive validity of explicit prejudice. Surprisingly, this was inconsistent with our results. Contrary to our hypothesis and to previous studies, we found that explicit prejudice seemed to be a better predictor of people’s perceptions concerning both physical/sexual assault and negative traits for Black drug users.

Limitations

This study was conducted using a small sample of 99 participants. Having a larger sample could have given us more statistical power which could have led to additional significant findings concerning the effects of explicit and implicit prejudice on perception of Black and White drug users. The sample was also only composed of college-educated students between the ages of 18 and 21, which is not completely reflective of the general population when it comes to levels of racism and prejudice and preference towards either incarceration or allotment of health
treatment. College students tend to be more educated, less prejudiced, and more exposed and aware of societal issues such as racism through class discussions and the liberal academic environment that they immerse themselves in. They are also more familiar with the nature of psychological studies compared to the general public and know how to respond to questions pertaining to stereotypes, race, and prejudice in a way that is more socially acceptable. As a result, by using only college students in our sample, we had less variance in our implicit and explicit bias scores. Our explicit bias scores in particular, which focused on explicit prejudice, had low levels of variance and generally reflected very low bias. Additionally, another factor that could have affected participants’ perception of the targets was close contact with outgroup members. College students tend to have more friends that are outgroup members compared to the general American public. Research has revealed that close contact with outgroup members has an effect on people’s perception of targets of different races (Dickter et al., 2014).

**Future Directions**

More research needs to be done in order to better assess the role that both explicit and implicit bias play concerning the perception of Black and White drug users, with a larger and more representative sample of the general American population. In addition, it would be beneficial to investigate how prejudice affects the perception of other minority populations that are also involved in drug use, and whether they are more likely to be recommended incarceration or health treatment. More studies could also be conducted to observe if levels of prejudice are different when comparing male drug users and female drug users of different races and if the combination of race and gender has a different impact on preference for incarceration or for health treatment.
Conclusion

To this day, Blacks who are involved in drug use still encounter more hateful judgment by the general public and unfair and ruthless treatment by the police when compared to Whites. The criminal justice system targets Black drug users much more often than drug users of other races in part due to negative stereotypes that society and the media associate with Blacks. The prominence of these stereotypes leads to prejudice and promotes a vicious cycle which perpetuates the existence of racial inequalities when it comes to mass incarceration, as well as to the quality of health treatment. Due to this cycle, Blacks experience serious hindrances such as persistent drug addiction, broken families, and deplorable health outcomes. However, the responses from our sample of college students reflect that with more education, conversations, and opportunities for outgroup friendships, it might be possible to reduce levels of prejudice and to fight racial injustice. Even still, conducting more research is necessary in order to raise awareness about this critical societal issue. Further awareness can instigate reforms that change the portrayal of Blacks and of drug users in the media, the inner-workings of the criminal justice system, and the quality of health resources provided to different races. Overall, more research is important to advocate for a more just and equitable society.
References


Table 1

Descriptive Statistics

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<tr>
<th>Variables</th>
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<td>ATB score</td>
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<td>IAT score</td>
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<td>Negative traits</td>
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<tr>
<td>Preference for incarceration over health treatment</td>
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</table>
Figure 1

Negative Traits as a Function of Condition and ATB
Success with health treatment over incarceration as a function of condition
Appendix A

White Target Condition Electronic Case Record
Appendix B

Black Target Condition Electronic Case Record
Appendix C

Control Target Condition Electronic Case Record

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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 D

Manipulation Checks

1) What state did this alleged criminal activity take place in?
   a. Virginia
   b. California
   c. Maryland
   d. Connecticut

2) What county did this alleged criminal activity take place in?
   a. Frederick County
   b. James City County
   c. Lake County
   d. Hartford County

3) When did this alleged criminal activity occur?
   a. 2010
   b. 2011
   c. 2012

4) State the defendant’s first name.

5) Select the defendant’s gender:
   a. Male
   b. Female
   c. Transgender
   d. Gender Variant/ Non-Conforming
6) Select the defendant’s race:
   a. American Indian or Alaska Native
   b. Asian
   c. Black or African American
   d. Hispanic or Latino
   e. Native Hawaiian or Other Pacific Islander
   f. White
   g. Other (state below):

7) What is the defendant charged with?
   a. Possession of Drugs
   b. Physical Assault
   c. Sexual Assault
   d. Robbery
Appendix E

Evaluations of Perceptions of Target

1) On a scale from 1-7, how afraid would you be of encountering this person on the street?

2) What do you think is this person’s occupation?

3) On a scale from 1-7, how likely is this person to do well at his presumed occupation?

4) What do you think is this person’s total income?
   a. Under $10,000
   b. $10,000 - $14,999
   c. $15,000 - $24,999
   d. $25,000 - $34,999
   e. $35,000 - $49,999
   f. $50,000 - $74,999
   g. $75,000 - $99,999
   h. $100,000 - $149,999
   i. $150,000 or more

5) Do you think this person is in a romantic relationship?
   a. Yes
   b. No

6) On a scale from 1-7, how likely is this person to have a successful relationship?

7) What do you think is this person’s completed educational level?
   a. Some High School
   b. High School Diploma
   c. GED
d. Some college  
e. Associate’s Degree  
f. Bachelor’s Degree  
g. Master’s Degree  
h. Doctorate Degree

8) On a scale from 1-7, how intelligent do you think this person is? 
9) On a scale from 1-7, how responsible do you think this person is? 
10) On a scale from 1-7, how hardworking do you think this person is? 
11) On a scale from 1-7, how boring do you think this person is? 
12) On a scale from 1-7, how friendly do you think this person is? 
13) On a scale from 1-7, how impulsive do you think this person is? 
14) On a scale from 1-7, how reliable do you think this person is? 
15) On a scale from 1-7, how deceitful do you think this person is? 
16) On a scale from 1-7, how immoral do you think this person is? 
17) On a scale from 1-7, how menacing do you think this person is? 
18) On a scale from 1-7, how violent do you think this person is? 
19) How likely do you believe it is for this person to commit burglary? 
20) How likely do you believe it is for this person to commit domestic abuse? 
21) How likely do you believe it is for this person to commit physical/sexual assault? 
22) How many years do you believe this person should be incarcerated for? 
23) Indicate how strongly you agree or disagree with the following statements: 
   a. This person should have access to health resources such as rehabilitation.
b. This person should have access to health resources such as overdose reversal drugs.

c. This person should be put in jail instead of being provided with health resources even though he would lose certain rights such as his voting privilege.

d. This person should be provided with health resources and should not be put in jail and lose rights such as his voting privilege.

e. This person would be less likely to commit the same crime if he were provided with health treatment instead of being put in prison.

f. This person would be less likely to commit the same crime if he were put in prison instead of being offered health treatment.

g. This person would be more successful in the future if he were put in prison instead of being offered health treatment.

h. This person would be more successful in the future if he were provided with health treatment instead of being put in prison.

i. This person’s drug addiction should be regarded as a serious health issue and not a criminal issue.

j. This person’s drug addiction should be regarded as a serious criminal issue and not a health issue.

k. This person deserves to be incarcerated over being given access to health services.

l. This person deserves to be provided access to health resources over incarceration.

24) List 5 overall traits you would use to describe the defendant’s personality.
Appendix F

Evaluation of Preferences for Incarceration vs. Health Treatment

1) On a scale from 1-7, how angry do you tend to feel towards drug users?

2) On a scale from 1-7, how disappointed do you tend to feel towards drug users?

3) On a scale from 1-7, how angry do you tend to feel towards drug addicts?

4) On a scale from 1-7, how disappointed do you tend to feel towards drug addicts?

5) How responsible should our society be in allocating resources to provide health care to drug users?

6) How responsible should our society be in allocating resources to provide health care to drug addicts?

7) How much money should our society spend to provide health care resources to drug users?

8) How much money should our society spend to provide health care resources to drug addicts?

9) In most circumstances, what do you think drug users who committed a crime deserve?
   a. Strictly Incarceration
   b. Equal Balance of Incarceration and Health Care
   c. Strictly Health Care

10) In most circumstances, what do you think drug addicts who committed a crime deserve?
   a. Strictly Incarceration
   b. Equal Balance of Incarceration and Health Care
   c. Strictly Health Care
11) In your opinion, do drug users who committed a crime deserve health treatment over incarceration?
   a. Yes
   b. Not Sure
   c. No

12) In your opinion, do drug addicts who committed a crime deserve health treatment over incarceration?
   a. Yes
   b. Not Sure
   c. No

13) In your opinion, do drug users who committed a crime deserve incarceration over health treatment?
   a. Yes
   b. Not Sure
   c. No

14) In your opinion, do drug addicts who committed a crime deserve incarceration over health treatment?
   a. Yes
   b. Not Sure
   c. No

15) On a scale from 1-7, how sympathetic do you tend to feel towards drug users?

16) On a scale from 1-7, how sympathetic do you tend to feel towards drug addicts?

17) On a scale from 1-7, how sympathetic would you be towards:
a. crack cocaine drug users/addicts
b. heroin drug users/addicts
c. marijuana drug users/addicts
Appendix G

Attitude Towards Blacks

Please rate your agreement with the following statements:

1) If a Black person were put in charge of me, I would not mind taking advice and direction from him or her.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

2) If I had a chance to introduce Black visitors to my friends and neighbors, I would be pleased to do so.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

3) I would rather not have Blacks live in the same apartment building I live in.
   a. Strongly Disagree
b. Disagree
c. Somewhat Disagree
d. Neither Agree nor Disagree
e. Somewhat Agree
f. Agree
g. Strongly Agree

4) I would probably feel somewhat self-conscious dancing with a Black person in a public place.
   a. Strongly Disagree
   b. Disagree
c. Somewhat Disagree
d. Neither Agree nor Disagree
e. Somewhat Agree
f. Agree
g. Strongly Agree

5) I would not mind it at all if a Black family with about the same income and education as me moved in next door.
   a. Strongly Disagree
   b. Disagree
c. Somewhat Disagree
d. Neither Agree nor Disagree
e. Somewhat Agree
f. Agree
6) I think that Black people look more similar to each other than White people do.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

7) Interracial marriage should be discouraged to avoid the “who-am-I?” confusion which the children feel.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

8) I get very upset when I hear a White person make a prejudicial remark about Black people.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
d. Neither Agree nor Disagree

e. Somewhat Agree

f. Agree

g. Strongly Agree

9) I favor open housing laws that allow more racial integration of neighborhoods.

a. Strongly Disagree

b. Disagree

c. Somewhat Disagree

d. Neither Agree nor Disagree

e. Somewhat Agree

f. Agree

g. Strongly Agree

10) It would not bother me if my new roommate was Black.

a. Strongly Disagree

b. Disagree

c. Somewhat Disagree

d. Neither Agree nor Disagree

e. Somewhat Agree

f. Agree

g. Strongly Agree

11) It is likely that Blacks will bring violence to neighborhoods when they move in.

a. Strongly Disagree

b. Disagree
c. Somewhat Disagree  

d. Neither Agree nor Disagree  

e. Somewhat Agree  

f. Agree  

g. Strongly Agree  

12) I enjoy a funny racial joke, even if some people might find it offensive.

a. Strongly Disagree  

b. Disagree  

c. Somewhat Disagree  

d. Neither Agree nor Disagree  

e. Somewhat Agree  

f. Agree  

g. Strongly Agree  

13) The federal government should take decisive steps to override the injustices Blacks suffer at the hands of local authorities.

a. Strongly Disagree  

b. Disagree  

c. Somewhat Disagree  

d. Neither Agree nor Disagree  

e. Somewhat Agree  

f. Agree  

g. Strongly Agree
14) Black and White people are inherently equal.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

15) Black people are demanding too much too fast in their push for equal rights.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

16) Whites should support Blacks in their struggle against discrimination and segregation.
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
g. Strongly Agree

17) Generally, Blacks are not as smart as Whites.
   
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

18) I worry that in the next few years, I may be denied my application for a job or a promotion because of preferential treatment given to minority group members.
   
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
   d. Neither Agree nor Disagree
   e. Somewhat Agree
   f. Agree
   g. Strongly Agree

19) Racial integration (of schools, businesses, residences, etc.) has benefited both Whites and Blacks.
   
   a. Strongly Disagree
   b. Disagree
   c. Somewhat Disagree
d. Neither Agree nor Disagree

e. Somewhat Agree

f. Agree

g. Strongly Agree

20) Some Blacks are so touchy about race that it is difficult to get along with them.

a. Strongly Disagree

b. Disagree

c. Somewhat Disagree

d. Neither Agree nor Disagree

e. Somewhat Agree

f. Agree

g. Strongly Agree
Family History Questions

1) Do you have any family members or friends who have used drugs more than once?
   a. Yes
   b. Not Sure
   c. No

2) Do you have any family members or friends who have been addicted to drugs?
   a. Yes
   b. Not Sure
   c. No

3) Do you have any family members or friends who have been arrested for the possession of drugs?
   a. Yes
   b. Not Sure
   c. No

4) Do you have any family members or friends who have been provided with health resources such as overdose reversal medication, drug rehabilitation programs, etc?
   a. Yes
   b. Not Sure
   c. No
Appendix I

Demographic Questions

1) What is your class?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior

2) How old are you?

3) What is your gender?
   a. Male
   b. Female
   c. Transgender Male
   d. Transgender Female
   e. Gender Variant/ Non-Conforming
   f. Prefer Not to Answer

4) What is your race/ethnicity (Select all that apply)
   a. American Indian or Alaska Native
   b. Asian
   c. Black or African American
   d. Hispanic or Latino
   e. Native Hawaiian or Other Pacific Islander
   f. White
   g. Other (state below)