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The Effect of Empathy on Implicit Bias

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The Effect of Empathy on Implicit Bias

Senior Project Submitted to
The Division of Science, Mathematics and Computing
of Bard College

by
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Abstract

The current study, investigates the influence of media on implicit biases through the mediating factor of empathy. The hypothesis was that participants that read passages that invoked empathy for either Blacks or police would experience a change in their implicit bias towards both groups (Blacks and police). Bard undergraduates read one of three passages (Black empathy, police empathy or control). The passages were created to manipulate empathy in the participants for Blacks, police or for neither group. Then they completed three Implicit Association Tests that measured their implicit biases towards flowers compared to insects, Black people compared to White people and police compared to other professions. Analyses showed that there was a main effect of Black empathy condition on the Race IAT; participants that read both of the empathy passages had more implicit preference for Whites over Blacks than participants in the control condition. There was no main effect of condition (passage) on empathy. Limitations and future directions are discussed.

Michael Brown, a black man, was shot by a police officer, Darren Wilson, on August 9, 2014. This tragedy left a trail of unanswered questions in its wake, along with sorrow and the want for justice. Communities across the country took a stance against police prejudice targeting minorities and the unjust killings of Blacks (Mathis, 2015). People started using social media as a platform to raise awareness regarding the biases that Blacks are subject to at the hands of the police (Arnold, 2015). Various videotaped encounters between Blacks such as Michael Brown, Eric Gardner, Walter Scott, Tamir Rice and the police went viral.

Police shootings have been a growing phenomenon in the United States for the last year and a half, and are based within the larger context of police bias. Statistics show that 1,134 people have died at the hands of the police in 2015 (Swaine et al, 2015). Blacks made up 15% of those deaths, and were twice as likely to be killed by the police than Whites, even after other factors were controlled for such as age, mental illness and neighborhood crime rates (Lowery, 2016). These statistics have sparked a nationwide conversation over a controversial topic: Police brutality targeting Black individuals. The country appears to be divided into two sides; one side which claims that there is police brutality and discrimination (particularly towards people of color). The other side claims that the tragedies (such as the shooting of Michael Brown and murder of Eric Gardner) were warranted because the individuals were committing criminal acts and the Police have the right to protect themselves in self-defense. For instance, on the website debate.org the question "Is police brutality a problem?" was raised. The responses were divided, as 60% of the respondents said yes and 40% said no. These different tragedies have also started movements, such as Black Lives Matter, among the younger generations. The key motivation of such movements is the hope for equality and safety for all.

This topic is interesting from a psychological perspective because of the division in the American society over police brutality (and the possible causes of this divide). In prior psychological research, it has been found that most individuals have implicit biases (Smith-McLallen, Johnson, Dovidio, & Pearson, 2006). An implicit bias is described as the bias in judgement and thinking that someone experiences below conscious level (Dovidio, Gaertner, Kawakami, & Hudson, 2002). There are different categories in which one can manifest implicit bias. These include race, religion, gender, class, and disability. For the purposes of this study I will be focusing on racial implicit bias.

Americans have a general implicit preference for Whites over Blacks (Nosek, Smyth, Hansen, Devos, Lindner, Ranganath & Banaji, 2007). Nosek, Smyth, Hansen, Devos, Lindner, Ranganath & Banaji (2007) analyzed more than 2.5 million Implicit Association Test (IAT) data obtained from Harvard's IAT website and discovered a general higher association with bad and Blacks than with bad and Whites. People also show "shooter bias" (Correll, Park, Judd, & Wittenbrink, 2002). In this study, participants sat at a computer and saw images of Black or White individuals holding either toy guns or other objects. They had to click on the mouse to virtually "shoot" individuals holding guns. Overall, people were more likely to shoot Black individuals who were holding harmless objects than White individuals holding harmless objects. I predict media to be a strong exterior factor which affects one's decision on the topic of police brutality. The media depicts stories in different ways; they choose specific details, narrations, and words to evoke specific feelings among the audience. Is the division over police brutality due to how the media portrayal of these tragedies affects people's attitudes towards Blacks or police officers? This paper will focus upon how the media evokes feelings, specifically empathy,

to make the public feel a certain way about a topic. My research question is “What is the effect of empathy on implicit bias?”

Media

Currently, we are living in a time where media has a huge impact in our daily lives. The use of technology (cellphones, laptops, iPads) has made the internet widely accessible to many (in the United States). Media sources (CNN, USA Today, NBC) have taken advantage of this technological era and have their news content (articles) available online. Articles can be shared instantly to social media sources such as Facebook and the content can reach anyone by appearing on their newsfeeds. Content produced by media sources has the potential to reach people that would typically not search for that certain news topic. People can stay up to date with current events with a simple click on their phone.

A current topic, Police Brutality, has been the focus of various articles in the last two years. These articles have covered the deaths of Black individuals (Michael Brown, Eric Gardner and many more) that were killed by Police officers. However, often all that the public knows about situations such as these is what has been depicted in the media. This gives the media great power, as they choose what they show to the public and how the story is framed.

Michael Brown’s death was exposed to the public by various media sources who communicated the same story framed in different ways. Does the framing of a story have an impact on the public’s opinion in regards to the situation represented in the story? Can it impact the public enough so that they choose one side over the other? Prior studies investigated this same question in the aftermath of Katrina.

In 2005, Hurricane Katrina hit southern Louisiana and Mississippi. It left a trail of destruction in its wake. Thousands of people were left displaced for months. Many lost loved

ones. New Orleans was destroyed, and it took the city years to rebuild it. The public outside of New Orleans largely had the media to depend on for information as to what was occurring inside of the city. This was because no one was allowed to enter the city for weeks after the hurricane hit. During that time there was a controversy over the language the media used to describe the survivors of Katrina (Sommers, Apfelbaum, Dukes, Toosi, & Wang, 2006). An example of the controversial language was the use of the word refugee over the word evacuee, a word rarely used to describe American citizens within the United States (Fenton, 2005; Kirgis, 2005). In the aftermath of Hurricane Rita there was no major use of the word refugee in the media, instead the word evacuee was most often used. In the article by Sommers, Apfelbaum, Dukes, Toosi & Wang (2006), the researchers mentioned potential explanations for this disproportionality.

The first explanation is that the media learned to avoid the word refugee by seeing its effects during the aftermath of Katrina (Sommers, Apfelbaum, Dukes, Toosi & Wan, 2006). The second explanation that they proposed, however, was more controversial than the first (Sommers et al, 2006). They proposed that the images that were transmitted of the Superdome were mostly of Black individuals. Therefore, they postulated, the use of the word refugee was because most of the victims of hurricane Katrina were Black (Sommers et al, 2006).

Another example that the article focused upon was the descriptions of two images that were nearly identical, except for the individuals that were the focus of the image. The first image showed a Black man wading through the flooded street carrying food. The caption of the image described him as looting a grocery store. The second image showed a White couple wading through the flooded street carrying food. The caption described them as locals carrying food and soda from a local grocery store (Sommers et al., 2006). The media used the power they had (and still have) to cause a certain reaction from the public with the words that they used in the

captions. The Black man was painted as a criminal, while the White couple was painted as locals surviving the aftermath of a disaster.

The aftermath of Katrina was a time in which communities, regardless of their differences, became one identity, citizens of the United States, and worked together to help their fellow Americans who lost everything during Katrina (Remes, 2015). People became selfless and donated to different organizations, like the Red Cross, so that they could have more funds to help New Orleans (Hurricane Katrina Led to Largest Ever Red Cross Relief Response, 2015) However, the words used in these captions had negative effects on the efforts to help the victims of Katrina.

Iyengar & Hahn (2007) evaluated the effects that these two captions had on the participants desire to give disaster assistance. They focused on implicit bias, and hypothesized that participants would be more willing to give more disaster assistance if they read the passage regarding the white couple instead of the black individual. They found that participants did in fact give more disaster assistance if they read the passage about the white couple. They also discovered that the participants gave less assistance if they read about looting as opposed to the destruction that Katrina caused. This study's findings showed the impact that media can have on the public through its use of images and language. A caption on a photo was enough for a person to determine how much assistance a victim of hurricane Katrina should receive.

The effects of the type of language used by the media to describe Black and White individuals were further studied by Johnson, Bushman, and Dovidio (2008). In addition to giving less disaster assistance to Black individuals (Iyengar & Hahn, 2007) after reading a passage of a Black individual looting after Katrina, participants also supported harmful treatment by police officers to a Black person in need (Johnson, Bushman, and Dovidio, 2008). The harmful

treatment included not allowing evacuees to enter other parishes and police officers firing shots over evacuees' heads (Josh et al, 2008). These studies suggest that various media sources present minorities in a negative light (Voorhees, Vick, & Perkins, 2007) and, subsequently, sway the public's opinion of minorities in a critical manner.

In order to fully understand the extent of power that the media has in influencing the public, one must understand the tactics that are used by the media to shape a story. Framing, priming, and agenda setting are some of the techniques used by the media to create bias, specifically distortion, content, and decision making biases (Entman, 2007). When these biases are applied to news, they can distort or falsify reality, they can favor one side of a story, or journalists can produce them with the intent to create a story that favors their own motivations (Entman, 2007).

The first technique, framing, is defined as the process of removing a few elements of perceived reality and creating a narrative to promote a particular interpretation (Entman, 2007). Framing is used often by media sources because they are some of the few that know the full story, and thus are able to choose what to tell or show to the public. Once the media frames a story, it then primes the public to alter their interpretations of the story. This was the case during the aftermath of hurricane Katrina, when the media focused on the Black victims and chose to tell stories of looting instead of finding food. Prior research showed that participants that were exposed to these stories were primed to associate the Black victims with criminals (Iyengar & Hahn, 2007).

In addition to framing and priming, agenda setting is used by the media to shape the public's opinion. Agenda setting is described as defining problems worthy of public and government attention (Entman, 2007). Therefore the media source chooses which stories to cover

based on their perceived level of importance for each story. This is important for this study as the stories of Michael Brown and Eric Gardner were covered by the media because they were deemed important enough for the public to know. Yet, what about the men and women that were also shot by police officers whose stories aren't covered? What about the stories that the public becomes aware about solely due to videos posted online? What differentiates these stories from Brown and Gardner's stories? These stories were not important enough to certain individuals for media sources to expose them, and thus public awareness of said events remains low (in comparison to highly covered topics).

Media sources often differ in the way they tell the same story. Sonnett, Johnson & Dolan (2015) investigated the reporting of the aftermath of Hurricane Katrina of different media sources (ABC, CBS, CNN, Fox, and NBC). They found that Whites have significantly greater speaking roles than Blacks during a news report (Sonnett, Johnson, & Dolan, 2015). On Fox News, no Black speakers reported the news (although Blacks were shown in the report). CBS had the highest amount of Black speakers who were not reporters, and also had one Black reporter (Sonnett et al, 2015). Throughout the different videos and segments from the first week after Katrina, each report was a narration of a white hero coming to save the black victim. This is once again an example of media priming the audience towards racial stereotypes of poor Black victims (or in other instances, Black criminals).

Another fact that is important when understanding the role of media in racial biases is understanding the percentage of Whites whose stories are covered by news sources, as opposed to minorities whose stories are covered. Owens (2008) completed a network analysis on news in 2005 and found that news coverage was predominantly about Whites (who also made up 90% of the networks' reporters). When Blacks were covered in the news they were more likely to be

represented as criminals, whereas Whites were more likely to be represented as victims (Owens, 2008). However, statistics on overall crime in 2005 show that Blacks committed 8% more crimes than Whites but the media disproportionately presented the crimes so that it appeared that Blacks were committing crimes at a much higher rate (Sedgwick, 2006).

In the cases of Michael Brown and Eric Gardner, this was also the representation used by certain news sources. Brown was described as a criminal holding a weapon, while Gardner was described as a criminal illegally selling cigarettes. However, other media sources described them as the victims of the police officers that shot them, who were described as the criminals. This is one of the possible explanations for why the general public seems to be divided on these cases; some people describe it as racially targeted police brutality while others describe it as police officers doing their job. Those that believe that the deaths were due to racial discrimination have expressed anger through media outlets and protested against Police brutality through rallies and the Black Lives Matter movement.

Past literature has shown that media has great power over its audience. The racial biases that were prevalent in photo excerpts, segments, and videos provided to the public by media sources in the aftermath of Katrina had a powerful impact on its audience. This was seen in various studies where participants tended to be more generous towards White victims than Black victims, and even supported the mistreatment of Black victims during that time. The evidence provided by previous research on the media's role with regards to racial biases further supports my hypothesis that the language used in a passage by a media source has a direct impact on a person's biases.

In the case of Brown, his story was reported by various news sources. The New York Times described Brown's death as the fatal shooting of an unarmed black teenager by a police

officer, and claimed that the police refused to give more details of what transpired (Bosman & Fitzsimmons, 2014). This article refers to Brown as an unarmed black teenager that was killed, and included a quote from Brown's stepfather who said that "the police have just executed his unarmed son." The words used by The New York Times to describe the events leading up to Brown's death, were unarmed, killed, and executed. These words provoke a feeling of empathy among the readers for Michael Brown and his family.

Another news source, NBC news, released an article regarding Michael Brown's death (Chuck, 2014). This article gave more details about what occurred at the time that Brown was killed. They included a quote from Dorian Johnson, Brown's friend that was with him at the time he was killed, and he recalled that the officer told them "get the f--k on the sidewalk" and "I'm gonna shoot you", and then braked in front of Brown (Chuck, 2014). Brown was described in this article as running for his life, surrendering, and saying that he did not have a gun right before he was shot. The words chosen by NBC to describe Brown's death also incited empathy for him and his family. However, there were statements made about Brown's death that were criminalizing Brown's behavior right before he was killed. The Ferguson police chief stated that Michael Brown had been killed after he assaulted a police officer and struggled to take the officer's gun (Chuck, 2014). He also stated that the gun fired in the officer's vehicle during the altercation. The choice of words by the police chief criminalizes Brown's actions, and suggests that his death was a consequence of his criminal actions towards the officer. These examples are only a few of the various articles produced by different news sources describing Brown's death. The mere choice of words, such as execution and assault, impact the public's reaction to Brown's death.

Empathy

Empathy is believed to have evolved in humans due to a need for prosocial behavior, which has been crucial for survival (Fuchsman, 2015). Empathy is the understanding and the sharing of feelings of another (Fuchsman, 2015). It is essential in prosocial behavior, such as helping others. Prosocial behavior is also seen in primates (Yamamoto & Takimoto, 2012).

A well-known prosocial psychological test with primates is the prosocial paradigm, in which primates have the options of either helping both itself and another primate or only helping itself (Yamamoto & Takimoto, 2012). This paradigm has shown us that non-human animals also have the capability of being prosocial, helping another member of its kind even when there are no rewards for doing so (Yamamoto & Takimoto, 2012). Prosocial behavior is believed to have evolved early on in human and non-human animals because of its necessity for the species' survival (Fuchsman, 2015). Empathy is a foundation for prosocial behavior in humans (Yamamoto & Takimoto, 2012).

Empathy develops early, around the age of a year and a half (Fuchsman, 2015). Children do not learn empathy from their parents; it is an emotion that is believed to come naturally to us (Fuchsman, 2015). Cooperating with others is linked with empathy; previous studies have found that when a young toddler is put in a situation in which they see an adult struggling with a task such as opening a door or reaching for an item, they instinctively attempt to help (Fuchsman, 2015). This simple action is evolutionarily important because it is a social behavior that enables an individual to be part of a group, by contributing and helping its other group members.

Empathy can be divided into two different types: cognitive empathy (CE) and emotional empathy (EE). Cognitive empathy is mental perspective taking, while emotional empathy is sharing of emotion (Smith, 2006). Cognitive empathy plays a role in predicting others'

behaviors, deceiving others, and nurturing children. An example of cognitive empathy is when one can take another's perspective during a negotiation. Emotional empathy is an important factor in altruistic behavior, and inclusive fitness (Smith, 2006). An example of emotional empathy is when you can physically feel and understand another's emotions such as when you see someone crying and you also start feeling sad. CE and EE interact with one another when an individual is making social decisions (Smith, 2006). Psychologists, Hoffman and Davis, have discussed the way both empathies interact and regulate one another. An example of their interaction would be EE makes us want to help others, while CE determines what kind of help is needed (Smith, 2006).

Empathy is a key focus of my study because I believe that this emotion has a direct impact on an individual's implicit bias. Mekawi, Bresin, & Hunter (2015), explored the effects of white fear (fear of minorities) and empathy on shooting bias and found that these two factors did have significant roles in a person's shooting bias towards Blacks. Fearing minorities can have terrible results on shooting bias, such that an individual high in white fear is more likely to shoot Blacks over Whites (Mekawi, Bresin, & Hunter, 2015). However, empathy mediates the effect of White fear on shooting bias, because the more empathy an individual has, the less likely they are to shoot Blacks (Mekawi et al, 2015).

This study is important to my research because they found correlations between white fear, empathy and shooting bias, such that white fear and shooting bias positively correlated (more white fear resulted in higher shooting bias), and empathy and shooting bias negatively correlated (more empathy resulted in lower shooting bias). This study suggests that making individuals feel different levels of empathy has a direct effect on their fear and bias towards racial out-group members. In a broader context, this could indicate that lowering people's fear

and increasing their empathy towards minorities could lessen the shooting of Blacks by Whites. This is relevant for police brutality because White cops are not exempt from the effects of these emotions on shooting biases, as we have seen in the past two years with the disproportionate numbers of Black victims that have died at the hands of the police.

In a similar study Shih, Stotzer & Gutierrez (2013) investigated whether empathy reduced in-group bias when a specific group was not targeted. There were two different conditions: empathy and control. The participants in the empathy condition were shown a video clip from the *Joy Luck Club* and were told to put themselves in the “shoes” of the Asian American character. The participants in the control condition were simply told to watch the clip. The participants then took a computerized task in which they had to evaluate good and bad words after being exposed subconsciously to ingroup (us) or outgroup (them) words (Shih, Stotzer, & Gutiérrez, 2013). Reaction times were used as indicators of the strength of the association between the word they were subliminally exposed to (us or them) and the category that preceded it (Shih et al, 2013). For example, if a participant had a shorter reaction time evaluating a good word after they had been subliminally exposed to an ingroup word (us) over an outgroup word (them), then it represented a stronger association between ingroup and good than outgroup and good (Shih et al, 2013). The participants in the control condition had a stronger association between good and ingroup (us), which demonstrated an in-group bias. They found that there was a difference in the implicit attitudes of participants from the empathy condition because they no longer showed the in-group bias (Shih et al, 2013). This study further supports my claim that feeling empathy is crucial in changing people’s implicit biases (specifically within the context of racial biases). Individuals that naturally have more empathy have also shown less

fear towards members of outgroups, and make more accurate life and death decisions such as when deciding to shoot someone (Mekawi et al, 2015).

Psychologists are trying to increase empathy in people through training with techniques such as role play, conversations, and practicing different situations (Teding van Berkhout & Malouff, 2016). Empathy training targets one of three types of empathy: cognitive, emotional, and behavioral (Teding van Berkhout & Malouff, 2016). People that partake in this have increased empathy by the end of training (Teding van Berkhout & Malouff, 2016). Empathy training is a necessity in our society because through this training, we can help lower fear and biases towards members of outgroups. The lowering of white fear that would result from the higher empathy induced by training, could significantly lower biases (such as shooting biases) towards Blacks as seen in previous studies (Mekawi et al, 2015 & Shih et al, 2013).

Explicit and Implicit Attitudes

Racism is socially unacceptable- it is frowned upon in the American society, and those that show explicitly biased behavior have become a minority among a majority that is not explicitly racist (Sigall & Page, 1971). Explicit bias is when an individual consciously reports dislike for a group based on an identity (such as race) or prefer one group (such as Caucasians over African Americans). Explicit biases are not only targeted towards races, but can be directed towards groups of people based on identities such as religion, sexuality, or profession.

However, due to some individual's lack of explicit racial biases, they might believe that they are not racist or biased in any way. This belief is false because some individuals have implicit biases (that they are generally unaware of), which causes them to act differently towards individuals of an out-group. The unawareness of their implicit biases makes it unlikely that their prejudices will be reduced (Perry, Murphy, & Dovidio, 2015). A bias, even a subtle one, can

have a significant impact on a person's behavior (Dovidio, Kawakami, & Gaertner, 2002). For example, if a person is more implicitly fearful towards another person because they are Black, then they might act more cautious or defensive. If a White police officer is in a situation with a Black individual and experiences the same implicit biases, then they might use more force than they would if the individual were of another race.

Prediction of Behavior. Explicit and implicit attitudes affect the interactions between people from different racial groups. Explicit attitudes impact interactions that are easier to control, such as verbal behavior (Wilson, Lindsey, & Schooler, 2000). Implicit attitudes affect interactions that are more difficult to control, such as nonverbal behavior (Dovidio, Kawakami, & Gaertner, 2002). An individual's response is often influenced by explicit attitudes, but when there is insufficient time to think of the effect of their responses then the response is more heavily swayed by implicit biases (Dovidio et al., 2002).

Explicit bias predicts deliberative behaviors, while implicit bias predicts spontaneous ones (Wilson, Lindsey, & Schooler, 2000). In interactions between Whites and Blacks, Whites tend to monitor their explicit verbal behaviors (Dovidio et al., 2002). The awareness of one's explicit attitudes tends to shape friendlier verbal behaviors because our explicit attitudes are more controlled and we are aware of them (Dovidio et al., 2002). The implicit attitudes are less controlled because we are unaware of them (Dovidio et al., 2002).

Attitudes towards Police

The general public's' attitudes towards the police has been measured through surveys (Wu, 2014). They found that different races have opposing attitudes towards police officers, such that Whites have the most positive attitude (towards the police) and Blacks have the most negative (Wu, 2014). Asians tend to share more of the Whites' attitude towards the police, while

Hispanics tend to share more of the Blacks' attitude (towards the police). The strong negative explicit bias towards the police that Blacks have stems from feeling racially targeted by the police and from the over policing in Black neighborhoods (Wu, 2014).

Females tend to rate the police more favorably than males, which can be due to males having more negative interactions with the police than females (Lai & Zhao, 2010).

Older individuals also tend to have a more favorable attitude towards the police than younger individuals. Older individuals have more positive attitudes (towards police) probably because they are more conservative and comfortable with authority (Wu, 2014). Stronger negative attitudes towards the police appear to have become more common since the Ferguson case (and the cases that preceded it, such as Eric Gardner's).

Attitudes towards Blacks

Negative explicit attitudes towards Blacks have significantly decreased since the 1970's to today (T. C. Wilson, 1996). Whites rated Blacks as more prone to violence and crimes in the 1990 General Social Survey (Unnever & Cullen, 2012). They also rated Blacks as lazier, less intelligent, and less patriotic than themselves (T. C. Wilson, 1996). However, the negative attitude towards Blacks has been decreasing through each generation. People born before World War II tended to have a more prejudiced view of Blacks, while individuals born after World War II tended to be more tolerant and less biased (T. C. Wilson, 1996).

While explicit attitudes can be assessed through the use of surveys, implicit attitudes can only be measured through tests such as the Implicit Association Test (IAT). The IAT measures the associations between categories and provides a record of less conscious attitudes by assessing the strength of the participant's association between two categories such as Black and Bad or White and Good (Nosek, Greenwald and Banaji ,2007). The data collected from this test has

constantly shown that White participants implicitly prefer White faces and stimuli over Black faces and stimuli because they have stronger associations for White and Good over Black and Good (Smith-McLallen, Johnson, Dovidio, & Pearson, 2006). Minorities also experience this implicit preference for Whites over Blacks.

The general public has a more negative implicit bias towards Blacks than Whites; however, participants individually differ on the strength of their negative associations with blacks (McConnell & Leibold, 2001). In a study by McConnell & Leibold (2001), they found that participants that had more negative interactions with the Black experimenter than with the White experimenter had stronger negative IAT scores towards Blacks than other participants.

There are multiple factors that shape how an individual will behave during an interracial interaction. The stronger negative association that a White participant has towards Blacks, the more hostile they act (Kaiser et al, 2011). Another factor that shapes the implicit behavior of Whites in an interracial interaction is how strongly Blacks identify with their racial group (Kaiser, Drury, Malahy, & King, 2011). White participants are more implicitly unfriendly to Blacks that identify strongly with their racial group (Kaiser et al, 2011). Conversely, the Black participants (that identified more strongly with their racial group) actually demonstrated friendlier behavior towards the White participants than those that did not identify strongly with their group (Kaiser et al, 2011).

These prejudices were prevalent and researched for the 2008 elections. This was the first election in which a Black candidate ran for President of the United States (as the nominee of a major party) and research has shown that implicit biases had a strong influence on individuals' votes (Payne, Krosnick, Pasek, Lelkes, Akhtar & Tompson, 2010). Individuals who had higher explicit prejudice against Blacks were more likely to vote for McCain than Obama, while

individuals who had stronger negative implicit prejudice towards Blacks were less likely to vote for Obama and McCain (Payne et al., 2010). Implicit prejudices impact a wide range of people's actions (including electing the leader of the United States). People cannot simply be colorblind and disregard others' races, their implicit biases towards certain racial groups influence daily interactions with others, as well as larger decisions.

Malleability of Attitudes

Mimicking a member of an out-group reduces implicit prejudice (Inzlicht, Gutsell, & Legault, 2012). Humans unconsciously mimic others due to their mirror neuron system and tend to mimic people from their in-group, specifically those that they favor (Inzlicht et al (2012). However, what would be the effects of an individual mimicking a member of an out-group? Inzlicht, Gutsell & Legault, (2012) found that White participants that mimicked Black individuals from a video had a reduction in their implicit bias towards the whole outgroup.

A similar study by Devine, Forscher, Austin, & Cox (2012) focused on an intervention to produce long term reductions in implicit bias. Implicit bias is viewed as a habit that could be broken through means of an intervention (Devine, Forscher, Austin, & Cox, 2012). The model consisted of a bias education and training program. The training component showed the participants how to incorporate bias reduction strategies into their daily lives. They found that participants that were part of the intervention group experienced reduction in their implicit bias by week 4 and continued on until week 8. This intervention model only worked on participants that were aware of their bias and had the desire to change (Devine et al, 2012). This study is crucial to my experiment because it supports the idea that being exposed to interventions or media that evokes feelings of empathy can change one's bias.

The mere exposure to positive Black individuals can alter a person's implicit bias (Nosek, Greenwald & Banaji, 2007). Research by Nosek investigated whether the implicit preference for Whites over Blacks could be shifted by exposing participants to positive Black individuals. They found that when participants were exposed to images of positive Black individuals and negative White individuals, implicit biases changed (Nosek et al., 2007). There was a shift in the participants' implicit biases such that the associations between "white and good" and "black and bad" weakened. I predict similar results in my study because I am incorporating a positive Black individual or police officer and a negative Black individual or police officer in each passage. Although I am not replicating the aspect of well-known exemplars in my passages, I still suspect that the positive and negative features of the characters are enough to cause a shift.

Different intervention techniques have been found to be successful in reducing implicit biases, such as mimicking members of outgroups, bias education and exposure to positive Black exemplars (Inzlicht et al, 2012; Devine et al, 2012; Nosek et al, 2007). Interventions that reduce implicit bias and those that increase empathy are necessary in our society. These interventions could be a step closer to eliminating the dangerous behaviors (lower threshold for shooting Blacks) that are likely caused by people's fears and biases.

Overview of Current Research

Media has a huge impact in our daily lives. It has the power to shape our attitudes towards a plethora of topics by evoking certain feelings in the public through their news content (articles & newscasts). The emotions that they elicit from the readers then shape people's attitudes towards topics. It also affects one's attitude (implicit and explicit) towards members of an outgroup. This intersection of media, emotion and attitudes (implicit and explicit) has yet to be researched in a Psychological setting.

I am interested in testing the proposition that media portrayals evoke empathy, which in turn affects implicit bias. We don't know a lot about implicit attitudes toward the police or about the relationship between police attitudes and racial attitudes. Therefore, I will be measuring implicit racial attitudes and implicit attitudes towards the police.

For the purposes of this study, I researched the effect that empathy has on implicit attitudes towards Blacks and Police. I manipulated empathy by creating passages (similar to the articles produced by media sources) that evoke empathy for its corresponding condition: Black empathy or Police empathy. The passage for the control condition was neutral and was not intended to evoke empathy.

Hypothesis 1 (Overall racial and police attitudes):

I predict that most participants at Bard College will be neutral and not have a significant explicit preference towards any group in the explicit measure scale. Similar to prior work, the control group will have more negative implicit bias towards Black individuals than White ones. The participants in the control condition will also have a slightly more negative implicit bias towards police officers than other professions.

Hypothesis 2a (effect of reading about encounter):

I expect that there will be a main effect of condition on implicit bias. Participants in the Black empathy condition will have less negative implicit bias towards Blacks and will have more negative implicit bias towards Police than the participants in the control and empathy conditions. Participants in the Police empathy condition will have less negative implicit bias towards Police and will have more negative implicit bias towards Blacks than the participants in the other two conditions.

Hypothesis 2b (effect of reading passage on empathy):

I anticipate that there will be a main effect of condition on empathy, such that participants in the police empathy condition will have more empathy toward the police than participants in the other two conditions, and participants in the Black empathy condition will have more empathy toward Blacks than participants in the other two conditions.

Hypothesis 3 (Relationship between variables):

I predict that the media passages (condition) will affect implicit biases (Blacks and Police), through the mediating factor of empathy, such that participants will read the passage for their assigned condition and feel empathy for a specific group (Blacks or police) and that will affect the implicit bias towards both groups.

Methods

Design

The study used a 3 x 2 between subject design, with passage condition (Black empathy, Police empathy or control) and Implicit Association Test (Race IAT, Police IAT) as factors. The independent variables in this design are the three passages: Black empathy, Police empathy and control passage. The dependent variable is the participant's implicit bias.

Participants

Participants (53 females, 34 males and 3 non-binary genders; 54 White, 13 Asian, 12 Blacks and 5 Hispanic) took part in this study. I recruited 100 undergraduate Bard college students by speaking to ten large-sized classes at the end of class with the professor's permission and tabling in the Kline Commons Cafeteria. In exchange, all participants received a chocolate bar and were entered in a raffle for a \$75 Amazon gift card.

Measures/Materials

Explicit Attitudes. An 8 item explicit attitudes scale assessed the participants' attitude towards Police officers and Black individuals. The first five items assessed bias towards Blacks and they inquired about liking, preference and feelings towards Blacks and Whites (i.e. How do you feel towards African Americans?). The last five items assessed bias towards Police and other professions (i.e. How do you feel towards police?). Participants indicated whether they agree with statements (i.e. I like Black people) on a 5 point scale in which 1= strongly agree and 5 = strongly disagree.

The participant's individual score was calculated into group means after the variables, race attitude and police/other attitude, were created. In order to create race attitude, first I had to create race warmth and race like. Race warmth was created by subtracting the scores of "How do you feel towards African Americans?" from "How do you feel towards European Americans?". Similarly, for racelike I subtracted "I like White people" from "I like Black people". The average of race warmth and racelike produced race attitude; higher numbers indicated more liking for Blacks.

I followed the same steps for Police/other attitude. Police/other warmth is the product of the variables "How do you feel towards police?" and "How do you feel towards other professions?" Police/other like is the product of the variables "I like police officers." and "I like other professions." Higher numbers indicate more liking for police officers. The reliability test score for this scale was $k = .484$.

Empathy Check. An eight item measure, adapted from the Cambridge Behavior Scale, assessed the participants' empathy towards Blacks and police officers (Baron-Cohen & Wheelwright, 2004). The first four items were specific questions about empathy towards Blacks

(i.e. It is hard for me to see why some things upset African Americans so much.). I calculated participants' Black empathy average by adding the first four items and dividing by four. The first item "It is hard for me to see why some things upset African Americans so much." had to be reverse scored so that higher scores meant more empathy towards Blacks.

The last four items were about empathy towards Police (i.e. It is hard for me to see why some things upset police officers so much). Similarly to Black empathy, I calculated participants' Police empathy average by adding the last four items and dividing by four. Item five, "It is hard for me to see why some things upset police officers so much.", also had to be reverse scored so that higher numbers showed more empathy towards police officers. This scale can be obtained in the appendix that is included (Appendix E). The reliability test score for this scale was $k=.324$.

Passages.

Black Empathy Passage. The purpose of this passage was to evoke empathy towards Blacks. The Black empathy passage was adapted from an article by USA Today about the shooting of Bettie Jones, a Black woman, by a White Police officer. Her story was summarized in the passage with a few changes to certain details so that the passage could not be recognized by an individual that had previously encountered the article about Bettie Jones. Quotes from the article were included but the names of the individuals that made the statements were changed.

Tamika Williams paused at her mother's casket, gently touching her mother's body as tears streamed down her face. Family and friends were mourning Mary Williams, the 55-year-old African-American mother of five, who had been shot more than a week prior by a police officer. After viewing her mother's body at the visitation, Tamika

Williams told reporters that her feeling of pain and loss was not ebbing. "It's so hard," Williams said.

Mary Williams' death added to the mounting tension in a city whose police department faced scrutiny in the aftermath of a series of police-involved shootings. Within hours of her death, police acknowledged that Williams was killed by an officer who was responding to a disturbance involving her neighbor. Her neighbor was holding a baseball bat when the officer arrived at the scene and the officer opened fire, killing them both. During the preparation for the funeral, family and friends expressed frustration about the scant details that officials released about the shooting. The acting head of the Independent Police Review Authority (IPRA) confirmed some details about calls prior to the shooting, but declined to discuss the investigation in detail. "We're getting so little information," said the senior pastor of the church where Williams worshiped. "We have no reason to trust this so-called Independent Police Review Authority." City officials declined to release "static" evidence, such as 911 dispatch calls, or formally acknowledge if any police or security video from neighboring homes captured footage of the shooting.

Williams, who was a grandmother to nine, had been working at a bakery at the time of her death. "She was absolutely loved and adored her family and children; I have been left without a mother and my kids without a grandmother. She was only 55, she still had a life to live" Tamika said. "She was full of life and personality."

"We will not rest until we find out what really happened to Mary," Tamika said. "We will celebrate her life, even though we have a lot of unanswered questions."

Police empathy passage. The Police empathy condition was created to evoke empathy towards Police officers. This passage was adapted from an article by USA Today about the execution style shooting of NYPD Police officers, Rafael Ramos and Wenjian Liu. This passage included a summary of the story along with a fictional narrative of the day in the life of Police officer, John Lewis, who was murdered along with his partner by gang members. Quotes from the NYPD Police chief and President Obama were included in this passage but their names were altered.

John Lewis had dreamt about becoming a police officer since he was a young boy. He came from an Irish-American family with a long tradition of service in the police force. Lewis was always passionate about helping people and trying to make a difference in his community. When he wasn't working, he was at a community outreach program that he led for at risk youths.

Lewis's world turned upside down one morning. The day began like any other – after getting ready for work, Officer Lewis stopped by the outreach center since it was on his way to work and spoke with some of the teenagers who were busy doing their homework before school. He arrived at work and about an hour into his day he and his partner decided to go and make rounds of the neighborhoods they patrol. They arrived at one of the neighborhoods that was well-known for gang violence and were at a stop sign when they noticed two well-known gang members approach them. Before they could drive away, the gang members pulled out guns and shot them “execution style.” Officer Lewis and his partner were pronounced dead at the scene.

Their captain gave a press conference the following day and he said, "When a police officer is murdered, it tears at the foundation of our society. It is an attack on all of us, when they are attacked; it is an attack on the very concept of decency." While in tears, he continued to speak, "I unconditionally condemn today's murder of two police officers. Two brave men won't be going home to their loved ones tonight, and for that, there is no justification.

"The officers who serve and protect our communities risk their own safety for ours every single day — and they deserve our respect and our gratitude every single day.

"Tonight, I ask people to reject violence and words that harm, and turn to words that heal — prayer, patient dialogue, and sympathy for the friends and family of the fallen."

Control Passage. This was a neutral passage of a violent encounter between a lion and a buffalo. This passage did not elicit empathy towards a specific group.

Violent encounters are common among animals in the wild. Sometimes the battles are epic. In a recent incident, a starving lion was cast out by his pride, and was forced to confront a fully-grown buffalo in a desperate bid to survive.

The lion had camped himself next to a watering hole hoping to attack unsuspecting buffalo, and pounced on this buffalo. The lion savagely bit and clawed at the buffalo's mouth, the big cat's face smeared with blood from where he'd been gored by his heavier and larger opponent's horns. The buffalo managed to shake the lion off himself, and then the animals stared at each other, too exhausted to move away from the

threat. After a few minutes of rest the lion then attacked the buffalo again, and another ten-minute battle ensued. Once again the buffalo managed to shake himself free. This continued over and over for an hour until both animals were completely spent and could no longer move. This brutal battle left both animals bloodied, exhausted, and with fatal wounds. The rest of the herd of buffalo, who had come to the water to drink, was watching from a distance while the fight carried on. A member of the buffalo's herd came to its aid and delivered a deadly blow.

The feline was tossed around in the air as he attempted to mount his adversary and was finally finished off when the other buffalo arrived on the scene to deliver a lethal blow.

That seemed to give the cow the opportunity it needed to escape and along with the rest of the herd moved off. Both animals were covered in blood. Two days later the lion succumbed to his injuries, while the buffalo's carcass was found two weeks later having failed to fight off infection

Tasks. Participants completed paper versions of the Flower/Insect Implicit Association Test (IAT), Race IAT and the Police/Other IAT. The Implicit Association Test measures the associations between categories and provides a record of less conscious attitudes (Nosek, Greenwald and Banaji, 2007). The logic behind the IAT is that the closer association that a participant has between two categories then they will have more correct responses because the task is easier for them.

The most common form of the IAT is the computerized version developed by Harvard. Another version of the IAT is the paper version which was used in this study. The paper version

of the IAT has two columns of stimuli and the participant has to categorize each stimulus by marking a circle either on the left or right side (Lemm, Lane, Sattler, Khan, & Nosek. 2008). Two of the categories belong to the left side, such as FLOWER and GOOD, and the right side has two other categories like INSECT and BAD. In the first condition, two of the categories, FLOWER and Good, are paired on the left side and INSECT and Bad are paired on the right side (Lemm, Lane, Sattler, Khan, & Nosek. 2008). The participant has twenty seconds to go down the list of stimuli in the middle as fast as possible by checking the circle that corresponds with its category.

For example, if it is a Flower word like tulip or a Good word like happy, then they would check the circle to the left. If it is an Insect word like mosquito or a Bad word like murder, then they would check the circle to the right. If a participant categorizes more words in one category pairing than the other, the participant's association between those paired categories is stronger than their association between the other set of paired categories. For example, imagine a participant is faced with category pairings *Black or good* and *White or bad*, (Mekawi et al., 2015) and they completed less words than when they were presented with the category pairings *Black or bad* and *White or good*, then the participant has a higher association between *Blacks* and *bad* and *White and good* (Appendix F). For the second condition, the category pairings switch, and FLOWER and BAD are on the left side and INSECT and GOOD are on the right side.

The first IAT that was presented was the Flower/ Insect IAT which was used as a practice IAT (Lemm, Lane, Sattler, Khan, & Nosek. 2008). The Flower/Insect IAT has categories: Flower, Insect, Good and Bad. The stimuli for the four categories were, Flower (daffodil, daisy, tulip), Insect (gnat, mosquito, roach), Good (awesome, excellent, happy) and Bad (evil, murder,

terrible). The first category pairings were Flower and Good, Insect and Bad. The second condition was Flower and Bad, Insect and Good.

Then, the second IAT (Race IAT) was presented. This IAT was created by using stereotypical Black and White names and words that are associated with Good and Bad. The stimuli for the categories were: Black (Jamal, Malik and Sharise), White (Daniel, Kelly and John), Good (awesome, excellent and happy) and Bad (evil, murder and terrible). The first condition included the pairings, Black and Good, White and Bad for the second condition, the category pairings were switched.

BLACK GOOD		WHITE BAD
O	John	O
O	awesome	O
O	Malik	O
O	terrible	O
O	Daniel	O
O	excellent	O
O	Jamal	O
O	evil	O
O	Kelly	O

Figure 1. Sample page of Race paper-format IAT.

The last IAT was the Police/ Other Profession IAT; it measured the implicit bias towards Police and other professions. This IAT was created with the assistance of my advisor, Kristin lane, and colleagues, Marna Dunne and Lily Henry.

The first step in this process was deciding what category I could use to compare Police to. We considered two possible comparison category options, a category comparison of a specific profession such as Firefighters or a category comparison of multiple professions that would be labeled other professions. We decided that the category that had multiple professions would provide the best results on the participants' implicit bias of Police when compared to multiple professions. The second step, was deciding which stimuli should be used in the other profession category. At first, I decided to use stimuli that were associated with other professions such as fire hose because the stimuli that were in the Police category were words associated with Police officers. However, after some consideration I decided to use the names of other occupations (farmer, accountant, plumber) because participants would be less likely to misunderstand the association between stimuli and other occupations.

For the other two categories, I used the Good and Bad categories from the previous IATs. The stimuli we choose for the categories were Police (cop, patrol car and sheriff), other professions (farmer, accountant, plumber), Good (happy, awesome and excellent) and Bad (evil, murder and terrible). The first condition was the category pairings Police and Good, Other profession and Bad. In the second condition the category pairings switched.

POLICE GOOD		OTHER BAD
O	Cop	O
O	awesome	O
O	farmer	O
O	awesome	O
O	sherriff	O
O	terrible	O
O	farmer	O
O	Awful	O

Figure 2. Sample page of Police/Other paper-format IAT.

The results for participants who completed less than eight words for an IAT pairing and participants who incorrectly categorized more than 25 percent of the words for an IAT pairing were excluded. There were twelve participants whose race IAT scores were excluded and nine participants whose police/other IAT scores were excluded.

Procedure

Participants read and signed the informed consent forms and were randomly assigned to one of three conditions-: Police empathy, Black empathy or control. Participants read the corresponding passage for their condition

All participants then completed three Implicit Association Tests (IAT). Each IAT took 20 seconds. Participants then completed a demographic information sheet that asked about age, race, gender, major, conservative/liberal, political affiliation, English as a first language and class year. At the end, they were debriefed and compensated for their time with a chocolate candy bar.

Results

I calculated the number of items the participants scored correctly and the total number of items they completed for each IAT. The product square root of difference formula developed by Lemm, Lane, Sattler, Khan & Nosek (2008) was used to calculate participants' race IAT and police/other IAT. Using this formula, I calculated the square root of the difference of the number of items completed. Then the square root of the difference of the number of items completed was multiplied by the ratio of items completed (Lemm, Lane, Sattler, Khan & Nosek, 2008).

For the Race IAT, the participants' race IAT scores were calculated so that higher numbers indicated an implicit preference for Blacks over Whites. Similarly, for the Police/Other IAT, higher numbers showed an implicit preference for police over other professions.

Overall racial and police attitudes

While the sample as a whole showed implicit preference for Whites over Blacks ($M = -1.17$, $SD = 3.01$), $t(87) = -3.62$, $p < .000$, $d = -.388$, there was an opposite explicit preference for Blacks over Whites ($M = .180$, $SD = .539$), $t(99) = 3.34$, $p = .001$, $d = .334$. This shows that participants implicitly preferred Whites but explicitly preferred Blacks. Implicit and explicit racial attitudes were positively correlated, $r(86) = .20$, $p = .060$.

Participants had a general implicit ($M = -.67$, $SD = 2.81$), $t(91) = -2.27$, $p = .025$, $d = -.238$, and explicit preference ($M = -.97$, $SD = .819$), $t(99) = -11.81$, $p < .000$, $d = -.118$, for other professions over police. Implicit and explicit attitudes towards police and other professions were positively correlated, $r(90) = .17$, $p = .102$. The more that participants explicitly prefer police, the more their implicit preference for police over other professions strengthens. Similarly, implicit race and police attitudes were also positively correlated, $r(83) = .10$, $p = .350$. This correlation

suggests that as participants' implicit preference for Blacks increases, implicit preference for police officers also increases.

Overall levels of empathy

While participants had overall empathy for Blacks ($M=3.8$, $SD=.595$), $t(98) = 63.42$, $p < .000$, $d = 6.39$, they were neutral in empathy for the Police ($M= 2.8$, $SD= .653$), $t(98) = 43.49$, $p < .000$, $d = 4.28$. The average rating of the participants' empathy for the police was close to 3, which represented undecided on the empathy scale.

Effect of reading about encounter (Implicit bias)

The data were examined with a 3 x 2 (Black empathy, Police empathy and control) x (Race IAT, Police/other IAT) analysis of variance (ANOVA). This ANOVA revealed a significant main effect of condition, $F(2, 85) = 3.44$, $p = .037$, $\eta^2 = .07$, such that participants in the Black empathy ($M= -1.69$, $SD= 3.52$) and Police empathy conditions ($M= -1.64$, $SD = 2.57$) had a stronger implicit preference for Whites than participants in the control condition ($M= .17$, $SD= 2.29$). I used the LSD Post-hoc test to identify the means that were significantly different from one another.

These results, while significant, were opposite of the results that we predicted for the Black empathy condition but in line with our prediction for the Police empathy condition. The participants in our control condition had a less negative implicit bias towards Blacks than the participants in the Black and Police empathy group. The Black empathy passage had the opposite effect on the participants because it made them more biased against Blacks. However, the police empathy passage was in line with my prediction because it made participants more biased against Blacks which could have been due to the negative image of the gang members in the passage that

murdered the police officers. The race of the gang members was not described in the passage but the participants could have assumed that they were minorities (Blacks or Hispanics).

Participants' implicit attitude towards the police did not differ based on condition, $F(2, 89) = 1.48, p = .232, \eta^2 = .03$. The participants in the control condition had a slight implicit preference for Police Officers ($M = .12, SD = 2.64$).

The participants in the Black empathy condition had a stronger implicit preference for other professions over Police officers, ($M = -1.13, SD = 3.08$). The results for the participants in the Black empathy passage were expected because Police officers were portrayed in a negative light in the Black passage and it affected their implicit bias.

Similarly, participants in the police empathy condition also had an implicit preference for other professions over police ($M = -.71, SD = 2.51$). However, these results are different than what I predicted because participants did not implicitly prefer Police after they read a passage that was supposed to evoke empathy towards the Police. See figure 3.

Effect of reading about encounter on explicit attitudes

Participants' racial explicit attitudes did not significantly differ by condition, $F(2, 97) = 2.17, p = .120, SD = .54, \eta^2 = .01$, nor did their explicit attitudes towards Police and Other professions, $F(2, 97) = .630, p = .535, SD = .82, \eta^2 = .04$. The explicit preference of Blacks over Whites, even though it was not significant was not surprising because the majority of the participants were White and past research has shown that Whites explicitly monitor their behavior towards Blacks to not appear prejudiced (T. D. Wilson, Lindsey, & Schooler, 2000). The explicit preference of other professions over Police can be due to the recent events in the last two years of Police brutality and Police officers often being portrayed in a negative light. See figure 4.

Effect of reading passage on empathy

Participants' empathy towards Blacks was not significantly affected by condition, $F(2, 96) = .067, p = .94, SD = .595, n^2 = .00$. Similarly, police empathy, $F(2, 96) = .229, p = .796, SD = .653, n^2 = .00$, did not differ by condition. These results suggest that the passages were not effective in evoking empathy among the participants. The participants in the Black empathy condition did have slightly higher empathy towards Blacks ($M = 3.81, SD = .576$), than participants in the control condition ($M = 3.79, SD = .563$) and the participants in the Police empathy condition had the least Black empathy ($M = 3.76, SD = .657$). The participants in the control condition had higher Police empathy ($M = 2.93, SD = .718$) than the participants in the Police empathy condition ($M = 2.84, SD = .718$) and the Black empathy condition ($M = 2.82, SD = .632$). See figure 5.

Relationship between variables

Hypothesis 3 predicted that empathy would mediate the relationship between condition and racial or police attitudes. The mediational model was not tested because empathy levels were consistent across conditions. Even so, this hypothesis suggests that higher levels of empathy for a group will be associated with lower levels of implicit bias. Consistent with this hypothesis, as participants' empathy towards Blacks increased, so did their implicit preference for Blacks (significant), $r(85) = .24, p = .023$. These results are consistent with prior work showing that as empathy towards a specific group increases, implicit negative association of that group decreases (Mekawi, Bresin, & Hunter, 2015). However, this was not true for police empathy and police implicit preference, as participants' empathy towards Police increased, their implicit preference for other professions over Police also increased.

Participants with greater empathy toward Blacks showed greater implicit preference (significant) for other professions over Police, $r(89) = -.26, p = .011$. These results are interesting because they suggest that participants that have more empathy towards Blacks also have a stronger negative implicit attitude towards Police. This can be caused by the awareness of Police brutality towards Blacks. The more empathetic someone is towards Blacks, then the more they dislike the group (Police) that they believe is causing them harm.

Police empathy and race implicit attitudes were negatively correlated (non-significant), $r(85) = -.10, p = .32$. This correlation indicates that as participant's empathy towards Police officers increases, implicit preference for Whites over Blacks also strengthens. Similarly, police empathy and implicit attitudes towards police and other professions were also negatively correlated (non-significant), $r(89) = -.04, p = .731$.

Discussion

The current work tested the effect that empathy (invoked by media) has on implicit bias. The main prediction was that participants would feel empathy towards Blacks or Police as a result of the condition (Black empathy, Police empathy or control) they were assigned to and that would cause them to have less negative implicit bias towards the corresponding group. Participants' empathy was manipulated towards the two groups (Blacks and Police) by creating passages similar to the articles that are produced by media sources. Participants read one of three passages and then took the Race and Police/Other IAT which measured their implicit biases towards Blacks/Whites and Police/Other professions.

Along with my main prediction, I also anticipated that there would be no explicit preference for any group and participants would remain neutral in their explicit attitude responses. However, I did expect there to be an implicit preference towards Blacks similar to the

results found in prior studies (Nosek et al, 2007). I assumed that based on the condition they were in, participants would feel more empathy to the corresponding group (Blacks or police) than participants in the other two conditions. For example, participants in the Black empathy condition would feel more empathy for Blacks than participants in the other two conditions.

The participants in all conditions had an implicit preference for Whites (over Blacks) and other professions (over Police officers). The participants also had an explicit preference for Blacks over Whites and other professions over Police.

The main hypothesis was not supported. The passages did not make participants feel empathy towards either group significantly more than the participants in the other two conditions. However, the participants in the Black empathy condition did have higher empathy, although not significant, for Blacks than the participants in the other two conditions. The participants' condition did have a significant effect on racial implicit bias but it was different than what was expected for the participants in the Black empathy condition. The participants in the Black empathy condition had more negative implicit bias towards Blacks after they read the Black empathy passage than participants in the control condition.

These results are counterintuitive because it shows that reading about a Black individual suffering does not lessen the negative implicit bias towards Blacks but reinforces it and makes it stronger than the baseline negative implicit bias towards Blacks. There are a few possible explanations as to why this occurred.

The first explanation is that reading about crime (regardless of who the victim is) affects racial attitudes because it reinforces the "Blacks are criminals/violent" stereotypes. Crime and violence is strongly associated with Blacks in the American society (Unnever & Cullen, 2012). Therefore, reading about a violent act such as a shooting that resulted in an individual's death

can prime the participant with the “Blacks are criminal/violent stereotype”. The “racialization of crime”, which media has used to portray Blacks as violent, is one of the reasons why this stereotype exists in the American society (Mancini, Mears, Stewart, Beaver, & Pickett, 2015). The racialization of crime increases fear in Whites towards Blacks (Mastro, Lapinski, Kopacz & Behm-Morawitz, 2009). Previous research found that people were more biased against Blacks than Whites, when primed with crime scenarios (Mastro et al, 2009). It is possible that reading about crime was a strong enough reminder of the “Blacks are criminals/violent” stereotype that it surpassed the effect of empathy on implicit bias.

The second explanation is that mortality salience (MS) increases in-group favoritism and strengthens implicit ingroup bias (Li, Liu, Luo, Wu, Wu, & Han, 2015). Mortality salience is the awareness of death (Li et al., 2015). The Black empathy passage was salient in mortality because the story about Mary William’s death reminded participants of how fleeting life is. The hypothesis that people experience in-group favoritism after being in a mortality salient situation was supported by Routledge, Juhl, Vess, Cathey, & Liao (2013). I suspect that the participants in this study (who were mostly white) had a stronger implicit preference for their in group (Whites) after reading a passage about death (Bradley, Kennison, Burke, & Chaney, 2012). Mortality Salience effects individuals’ neural responses toward ingroup and outgroup members (Li et al., 2015). They experience an increase of empathic neural responses toward ingroup members but a decrease in their empathic neural responses toward members of outgroups (Li et al., 2015). Mortality salience causes a neurological change that manifests as ingroup favoritism even after seeing an outgroup member suffering.

In order to better understand why people are more likely to prefer an ingroup member when they are reminded of death, one must understand terror management theory (TMT). Terror

management theory suggests that people want to believe that they can surpass death (Routledge, Juhl, Vess, Cathey & Liao, 2013). However, since people cannot physically surpass death, they feel that a part of them will live on through the groups they identify with (Routledge et al, 2013). Therefore, when a person is reminded of death (Mortality Salience), they are more likely to identify strongly with their ingroup because of TMT.

The last explanation is that cognitive dissonance causes this implicit preference. People want to maintain a positive group image because part of a person's identity is defined by the groups they identify with based on race, gender etc. Members from one's in-group that behave differently than the group's standards are judged more harshly than members of outgroups due to the black sheep effect (van Prooijen, 2006). However, this has only been tested on less serious crimes such as illegally selling tickets and theft (van Prooijen, 2006). I suspect that for more serious crimes such as murder, the black sheep effect is not present. This would put the White participants at a cognitive dissonance because they read a passage of a member from their in-group that has killed someone (an act that many condemn) and that action could have a negative impact on their group's image. This theoretically leads participants to create a justification for the murder (that their ingroup member committed) such as the Black victim committing a criminal act which lead to their death. This prompts an increase of the participants' negative implicit bias towards Blacks.

Although the main hypothesis was not supported, there were significant correlations that supported aspects of my hypothesis. Black empathy and race IAT score were positively correlated which suggests that empathy does play an important role in shaping an individual's implicit biases; the more empathy that an individual has for Blacks the more they implicitly like Blacks. This is similar to the findings from previous studies that show that increasing empathy

decreases implicit bias. Black empathy and police/other IAT were negatively correlated indicating that the more empathy a person has for Blacks, the more they implicitly dislike police. This correlation is not surprising because as the number of victims of police brutality increase, I predict that police likability will decrease (specifically among individuals that have more empathy for Blacks).

Limitations

Participants. This study is not applicable to the general population because all of the participants were Bard college students and they are not representative of the general United States population. Bard college students are from a very specific age group that typically ranges from 17 to 24 years of age. Bard College is also a liberal arts college and that entices a particular type of person and all students are required to take distribution requirements in different academic areas. These requirements can shape the student's views on certain topics which would differ from a student that went to another college or an individual that did not go to college. Lastly, Bard College is known for its liberal views on certain topics and most students share these liberal views.

Methodology. Another limitation is that this topic of police brutality is potentially time sensitive because while police brutality has been occurring for years, the recent media portrayal of Police shooting of Black individuals is relatively recent (since Michael Brown's death). This has made people more informed about this topic which could possibly have affected their implicit biases towards both groups (Blacks and Police). The results from this study could be very different ten or twenty years from now depending on the cultural atmosphere towards Blacks and police.

Another limitation in the methodology of this study is that the passages did not significantly affect the participants' empathy towards either group. The passages did not evoke the emotional responses from participants as I expected. I suspect that this could have occurred because of desensitization towards violence in media. Desensitization is the diminished emotion to a negative stimulus after being exposed to it repeatedly (Fanti, Vanman, Henrich & Avraamides, 2009). The National Institute of Mental Health found that children become less sensitive to the pain and suffering of other due to the exposure of violence on the television (Violence in the media, 2016). People become desensitized to media violence after repeated exposure to violence in the media (Fanti, Vanman, Henrich & Avraamides, 2009). I propose that desensitization does not only occur immediately after being exposed to violence in the media but that there is a lasting effect of desensitization of media violence; which would lead the general population to desensitization to media violence because they have grown up watching and hearing about violent news. Reading the passages about the death of Mary Williams and John Lewis, did not much empathy because the participants are desensitized.

Another factor that could have affected the results was the Police Officer's name, John Lewis, in the Police Empathy condition. John Lewis is a Black congressman that has strong beliefs on Police Brutality issues and is very active in trying to bring change around this topic. Some participants could have been aware of him and had pre-existing biases when they read the passage.

The study did not have strong internal validity because the passages for each condition were different. However, it was necessary for the passages to be different for there to be external validity since they represented the different articles that media produces on topics concerning Police Brutality. If I would've created the passages the same except for whether the victim was

Black or a police officer (strong internal validity), then it would not have been a good representation of different media sources (CNN, NBC, USA Today) that frame the same stories in very different ways.

Fear

I did not measure the effect that fear had on the participants' implicit bias. The passages had the potential to elicit fear in the participants towards Police (Black empathy condition) and Blacks (Police empathy condition). The victim in the Black empathy passage was killed by a police officer and the victim in the Police empathy passage was killed by a gang member (often associated with Blacks). Therefore fear could have interacted with the participants' bias towards both groups (Blacks & police).

Previous research has shown that individuals high in white fear (fear of racial minorities), are more likely to "shoot" Blacks (on the computer) than participants with lower white fear (Mekawi, Bresin, & Hunter, 2015). The more white fear a participant has, the more likely they are to "shoot" Blacks, which is also probably correlated with a more negative implicit bias towards Blacks. This kind of research has not been done with police officers but I predict similar results. The more fear that participants have of police officers; the more they will implicitly dislike them.

Future Research

The future directions described below is for the continuation of the research on the effect of empathy on implicit bias.

Suggested changes in methodology. For future research on the effect of empathy on implicit bias, the methodology can be changed so that the empathy stimuli have a significant effect on the participant's empathy towards Blacks and police. The empathy stimuli can be

changed from a passage (used in this study) to a visual stimulus such as a video. Previous research has found that watching videos can evoke empathic reactions (blushing) towards strangers and friends (Shearn, Spellman, Meirick, & Stryker, 1999). This suggests that visual stimuli might be more effective at invoking empathy in participants than written stimuli.

Another methodological change is altering the way that empathy is measured. The current study uses a self-response scale to measure the participants' empathy towards Blacks and police. However, self-response is not the most reliable measure because participants can monitor their responses and choose ones that they think are more socially favorable. I propose using fMRI to see activations of brain regions associated with empathy. This would give a better insight into the participants empathy towards specific groups based on neural activity.

An additional modification to the methods sections is changing the implicit bias groups from race and police/other to religion. Police brutality is only one of the many current controversial topics; another topic is Islamophobia, which is the prejudice against Islam. Islamophobic sentiments have increased in the United States since the attack on 9/11 (Rose, 2013). Islamophobic sentiments are expressed by calling people that identify as Muslims, terrorists or more extreme measures such as assaulting Muslims. I predict that the media has a large role in people's sentiments towards Muslims because of how they portray terrorist attacks. When a Muslim commits a crime, media sources often describe them as terrorists but when a White person commits a crime such as a large shooting, they are often described as mentally ill (Butler, 2015). Most of the methodology for the study could be kept the same with the only change that the passages will be about Muslims, Christians and Atheists.

Future approaches. The design of the current study rests on the notion that media uses specific wording to describe encounters about police brutality (Blacks and police). An important question

for this study is “Does the media use different wording to describe police brutality?” This question has to examine three different aspects about the wording used by media. The different aspects are: wording to describe Blacks stories, wording to describe police stories and wording to describe encounters between Blacks and police (specifically police brutality).

One approach the future researchers can use is to complete a meta- analysis of articles produced by different media sources in the last five or ten years about Blacks, police and encounters between Blacks and police (police brutality). The data from the meta- analysis can show either significant or nonsignificant differences in the wording of these different encounters.

This study examined the impact that media (through the use of empathy) had on implicit bias. However, it would be interesting to look at how people interpret scenarios that involve members from outgroups. This would give us an insight at how reporters that witness scenarios unfold interpret a situation depending on the race of the people involved. One approach the researchers can use to examine this question would be to have confederates act out a scene such as an argument and have the participant describe what they saw. One scenario could involve two White confederates and the other scenario could involve a White and Black confederate. I expect that participants would interpret the scenarios differently such that they would recall the Black confederate as more hostile, because of their implicit biases. If reporters do in fact interpret scenarios differently depending on the race of the individual involved, then we could comprehend the reason why media sources describe stories about Blacks differently than stories about Whites.

Future research should also address how the Black empathy passage negatively impacted implicit bias towards Blacks. The analyses showed that people that read the black empathy passage implicitly liked Whites more than people in the control condition. Research can address

these findings, and explore if Mortality Salience (MS) has an effect on implicit biases even after reading a passage that invokes empathy.

Conclusion

Police brutality is currently a topic that is causing a lot of controversy. The general public appears to have taken two different sides on this matter, one side claims that police are targeting Blacks and the other side claims that police are simply doing their job. However, one cannot simply look at these two opposing sides and fully understand the complexity of this topic; instead multiple factors have to be examined such as attitudes towards Blacks, attitudes towards the police and the media's role. The question "why is the general public divided in their opinions on police brutality?" prompted this study, examining specifically the effect of the media on implicit bias, through the mediating factor of empathy.

Implicit biases are biases that many people have without being aware of them. These implicit attitudes affect people's behavior towards members of outgroups. There are many factors that shape implicit attitudes, and this project focused on how media affects attitudes. Media, theoretically, shapes the public's attitudes towards different topics by invoking empathy (understanding and sharing another's feelings) through their content (articles, videos etc.)

The hypothesis that reading one of the passages (Black empathy, police empathy or control) will significantly impact implicit bias (Blacks, police) was not supported for police/other implicit bias. The passages did have a significant impact on race implicit bias, but it was opposite from what I predicted for the participants in the Black empathy passage because they implicitly disliked Blacks more after they read the passage. I suspect that these results occurred because mortality salience (MS) caused the participants to have a strong preference for members from their ingroup surpassing the effects of empathy on implicit bias.

Although my predictions were not supported, there was a significant correlation of Black empathy and implicit attitudes, such that as empathy towards Blacks increased, implicit preference of Blacks also increased. As Black empathy increased, implicit preference for other professions over the police also increased. These findings indicate that empathy does have a significant impact on one's implicit biases.

Media should not be discounted as a factor that affects implicit attitudes, because previous research has found that the wording of articles has significant impact on people's behaviors, such as in the aftermath of Katrina. Media sources have a lot of power because the content they produce is viewed and read by millions. Extended research on this topic can design a different methodological approach that will significantly change empathy levels and those results will be a more accurate indicator of how media uses empathy to shape implicit biases. This research and future research on this topic can better inform us of the effect that media has on the general public's attitudes towards specific topics. It can also help us understand why people are divided on important issues such as police brutality. Is it mainly due to internal factors such as personal beliefs or external factors such as media? If we find that my hypothesis that the media has a large role in shaping people's attitudes (explicit and implicit), is supported in future research then regulations can be implemented to monitor the content that media produces so that they do not negatively affect people's implicit biases.

References

- Arnold, A. P. (2015, August 7). The real whistle-blower in police brutality.
Retrieved from CNN.com website: <http://www.cnn.com/2015/08/07/opinions/arnold-police-shootings/>
- Baron-Cohen, S., & Wheelwright, S. (2004) The Empathy Quotient: An Investigation Of Adults With Asperger Syndrome Or High Functioning Autism, And Normal Sex Differences. *J AUTISM DEV DISORD*, 34(2), 163-75.
- Bosman, J., & Fitzsimmons, E. (2014, August 10). Grief and Protests Follow Shooting of a Teenager. Retrieved from www.nytimes.com website: <http://www.nytimes.com/2014/08/11/us/police-say-mike-brown-was-killed-after-struggle-for-gun.html>
- Bradley, K. I., Kennison, S. M., Burke, A. L., & Chaney, J. M. (2012). The effect of mortality salience on implicit bias. *Death Studies*, 36(9), 819-831. doi:10.1080/07481187.2011.605987
- Butler, A. (2015, June 18). Shooters of color are called ‘terrorists’ and ‘thugs.’ Why are white shooters called ‘mentally ill’?
Retrieved from <https://www.washingtonpost.com/posteverything/wp/2015/06/18/call-the-charleston-church-shooting-what-it-is-terrorism/>
- Chuck, E. (2014, August 13). The Killing of an Unarmed Teen: What We Know About Brown's Death. Retrieved from www.nbcnews.com website: <http://www.nbcnews.com/storyline/michael-brown-shooting/killing-unarmed-teen-what-we-know-about-browns-death-n178696>

- Correll, J., Park, B., Judd, C. M., & Wittenbrink, B. (2002). The police officer's dilemma: Using ethnicity to disambiguate potentially threatening individuals. *Journal of Personality and Social Psychology, 83*(6), 1314–1329. <http://doi.org/10.1037/0022-3514.83.6.1314>
- Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. L. (2012). Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *Journal of Experimental Social Psychology, 48*(6), 1267–1278. <http://doi.org/10.1016/j.jesp.2012.06.003>
- Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology, 82*(1), 62–68. <http://doi.org/10.1037/0022-3514.82.1.62>
- Dovidio, J., Gaertner, S., Kawakami, K., & Hodson, G. (2002). Why can't we just get along? Interpersonal biases and interracial distrust. *Cultural Diversity and Ethnic Minority Psychology, 8*, 88-102
- Entman, R. M. (2007). Framing bias: Media in the distribution of power. *Journal of Communication, 57*(1), 163–173.
- Fanti, K. A., Vanman, E., Henrich, C. C., & Avraamides, M. N. (2009). Desensitization to media violence over a short period of time. *Aggressive Behavior, 35*(2), 179-187. [doi:10.1002/ab.20295](https://doi.org/10.1002/ab.20295)
- Fuchsman, K. (2015). Empathy and humanity. *The Journal of Psychohistory, 42*(3), 176–187.
- Hurricane Katrina Led to Largest Ever Red Cross Relief Response. (2015, August 28). Retrieved from [www.redcross.org website: http://www.redcross.org/news/article/Hurricane-Katrina-Led-to-Largest-Red-Cross-Relief-Response](http://www.redcross.org/news/article/Hurricane-Katrina-Led-to-Largest-Red-Cross-Relief-Response)
- Inzlicht, M., Gutsell, J. N., & Legault, L. (2012). Mimicry reduces racial prejudice. *Journal of Experimental Social Psychology, 48*(1), 361–365. <http://doi.org/10.1016/j.jesp.2011.06.007>

- Johnson, J. D., Bushman, B. J., & Dovidio, J. F. (2008). Support for harmful treatment and reduction of empathy toward blacks: “Remnants” of stereotype activation involving Hurricane Katrina and “Lil’ Kim.” *Journal of Experimental Social Psychology*, *44*(6), 1506–1513. <http://doi.org/10.1016/j.jesp.2008.07.002>
- Joy-Gaba, J. A., & Nosek, B. A. (2010). The surprisingly limited malleability of implicit racial evaluations. *Social Psychology*, *41*(3), 137–146. <http://doi.org/10.1027/1864-9335/a000020>
- Kaiser, C. R., Drury, B. J., Malahy, L. W., & King, K. M. (2011). Nonverbal asymmetry in interracial interactions: Strongly identified Blacks display friendliness, but Whites respond negatively. *Social Psychological and Personality Science*, *2*(5), 554–559.
- King, R. D. & Wheelock, D.(2007). Group Threat and Social Control: Race, Perceptions of Minorities and the Desire to Punish. *Social Forces* *85*(3), 1255-1280. Oxford University Press. Retrieved April 22, 2016, from Project MUSE database
- Lai, Y.-L., & Zhao, J. S. (2010). The impact of race/ethnicity, neighborhood context, and police/citizen interaction on residents’ attitudes toward the police. *Journal of Criminal Justice*, *38*(4), 685–692.
- Lemm, K. M., Lane, K. A., Sattler, D. N., Khan, S., & Nosek, B. A. (2008). Assessing implicit attitudes with a paper-format Implicit Association Test. In T. G. Morrison & M. A. Morrison (Eds.). *The psychology of modern prejudice*. Hauppauge, NY: Nova Science Publishers.
- Li, X., Liu, Y., Luo, S., Wu, B., Wu, X., & Han, S. (2015). Mortality salience enhances racial in-group bias in empathic neural responses to others’ suffering. *NeuroImage*, *118*, 376–385.

- Lowery, W. (2016, April 7). Study finds police fatally shoot unarmed black men at disproportionate rates. Retrieved from https://www.washingtonpost.com/national/study-finds-police-fatally-shoot-unarmed-black-men-at-disproportionate-rates/2016/04/06/e494563e-fa74-11e5-80e4-c381214de1a3_print.html
- Mastro, D., Lapinski, M. K., Kopacz, M. A., & Behm-Morawitz, E. (2009). The influence of exposure to depictions of race and crime in TV news on viewer's social judgments. *Journal Of Broadcasting & Electronic Media*, 53(4), 615-635. doi:10.1080/08838150903310534
- Mancini, C., Mears, D. P., Stewart, E. A., Beaver, K. M., & Pickett, J. T. (2015). Whites' perceptions about Black criminality: A closer look at the contact hypothesis. *Crime & Delinquency*, 61(7), 996–1022. <http://doi.org/10.1177/0011128712461900>
- Mathis, W. (2015, October 26). Hundreds Rally In New York City To Protest Police Brutality. Retrieved from [www.Huffingtonpost.com website: http://www.huffingtonpost.com/entry/rise-up-october-rally-nyc_us_562c0fd9e4b0aac0b8fd23f3](http://www.huffingtonpost.com/entry/rise-up-october-rally-nyc_us_562c0fd9e4b0aac0b8fd23f3)
- McConnell, A. R., & Leibold, J. M. (2001). Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of Experimental Social Psychology*, 37(5), 435–442. <http://doi.org/10.1006/jesp.2000.1470>
- Mekawi, Y., Bresin, K., & Hunter, C. D. (2015). White Fear, Dehumanization, and Low Empathy: Lethal Combinations for Shooting Biases. *Cultural Diversity and Ethnic Minority Psychology*. <http://doi.org/10.1037/cdp0000067>
- Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, N. M., Ranganath, K. A., Banaji, M. R. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology*, 18, 36–88.

- Nosek, B. A., Greenwald, A. G., & Banaji, M. R. (2007). The Implicit Association Test at age 7: A methodological and conceptual review. In J. A. Bargh (Ed.), *Automatic processes in social thinking and behavior* (pp. 265–292). Psychology Press.
- Owens, L. C. (2008). Network news: The role of race in source selection and story topic. *Howard Journal of Communications*, *19*(4), 355–370.
<http://doi.org/10.1080/10646170802418269>
- Payne, B. K., Krosnick, J. A., PASEK, J., Lelkes, Y., Akhtar, O., & Tompson, T. (2010). Implicit and explicit prejudice in the 2008 American presidential election. *Journal of Experimental Social Psychology*, *46*(2), 367–374. <http://doi.org/10.1016/j.jesp.2009.11.001>
- Perry, S. P., Murphy, M. C., & Dovidio, J. F. (2015). Modern prejudice: Subtle, but unconscious? The role of Bias Awareness in Whites' perceptions of personal and others' biases. *Journal of Experimental Social Psychology*, *61*, 64–78.
<http://doi.org/10.1016/j.jesp.2015.06.007>
- Remes, J. (2015, September 1). Finding Solidarity in Disaster. Retrieved from [www.theatlantic.com](http://www.theatlantic.com/politics/archive/2015/09/hurricane-katrin-as-lesson-in-civics/402961/) website: <http://www.theatlantic.com/politics/archive/2015/09/hurricane-katrin-as-lesson-in-civics/402961/>
- Rose, S. (2013, December 9). Since 9/11, Racism and Islamophobia Remain Intertwined. Retrieved from http://www.huffingtonpost.co.uk/steve-rose/911-racism-islamophobia_b_3908411.html
- Routledge, C., Juhl, J., Vess, M., Cathey, C., & Liao, J. (2013). Who uses groups to transcend the limits of the individual self? Exploring the effects of interdependent self-construal and mortality salience on investment in social groups. *Social Psychological And Personality Science*, *4*(4), 483-491. doi:10.1177/1948550612459770

- Sedgwick, J. (2006, December). *National Crime Victimization Survey: Criminal Victimization in the United States, 2005 Statistical Tables*. Retrieved from <http://www.bjs.gov/content/pub/pdf/cvus05.pdf>
- Shearn, D., Spellman, L., Meirick, J., & Stryker, K. (1999). Empathic blushing in friends and strangers. *Motivation And Emotion*, 23(4), 307-316. doi:10.1023/A:1021342910378
- Shih, M. J., Stotzer, R., & Gutiérrez, A. S. (2013). Perspective-taking and empathy: Generalizing the reduction of group bias towards Asian Americans to general outgroups. *Asian American Journal of Psychology*, 4(2), 79–83.
- Sigall, H., & Page, R. (1971). Current stereotypes: A little fading, a little faking. *Journal Of Personality And Social Psychology*, 18(2), 247-255. doi:10.1037/h0030839
- Smith, A. (2006). Cognitive empathy and emotional empathy in human behavior and evolution. *The Psychological Record*, 56(1), 3–21.
- Smith-McLallen, A., Johnson, B. T., Dovidio, J. F., & Pearson, A. R. (2006). Black and white: The role of color bias in implicit race bias. *Social Cognition*, 24(1), 46–73. <http://doi.org/10.1521/soco.2006.24.1.46>
- Sommers, S. R., Apfelbaum, E. P., Dukes, K. N., Toosi, N., & Wang, E. J. (2006). Race and Media Coverage of Hurricane Katrina: Analysis, Implications, and Future Research Questions. *Analyses of Social Issues and Public Policy (ASAP)*, 6(1), 39–55. <http://doi.org/10.1111/j.1530-2415.2006.00103.x>
- Sonnett, J., Johnson, K. A., & Dolan, M. K. (2015). Priming implicit racism in television news: Visual and verbal limitations on diversity. *Sociological Forum*, 30(2), 328–347. <http://doi.org/10.1111/socf.12165>

- Teding van Berkhout, E., & Malouff, J. M. (2016). The efficacy of empathy training: A meta-analysis of randomized controlled trials. *Journal of Counseling Psychology, 63*(1), 32–41. <http://doi.org/10.1037/cou0000093>
- Unnever, J. D., & Cullen, F. T. (2012). White perceptions of whether African Americans and Hispanics are prone to violence and support for the death penalty. *Journal of Research in Crime and Delinquency, 49*(4), 519–544.
- Van Prooijen, J. (2006). Retributive Reactions to Suspected Offenders: The Importance of Social Categorizations and Guilt Probability. *Personality And Social Psychology Bulletin, 32*(6), 715-726. doi:10.1177/0146167205284964
- Violence in the Media — Psychologists Study TV and Video Game Violence for Potential Harmful Effects. (n.d.). Retrieved April 23, 2016, from www.apa.org website: <http://www.apa.org/action/resources/research-in-action/protect.aspx>
- Voorhees, C. C. W., Vick, J., & Perkins, D. D. (2007). “Came hell and high water”: The intersection of Hurricane Katrina, the news media, race and poverty. *Journal of Community & Applied Social Psychology, 17*(6), 415–429. <http://doi.org/10.1002/casp.945>
- Wilson, T. C. (1996). Cohort and prejudice: Whites’ attitudes toward Blacks, Hispanics, Jews and Asians. *Public Opinion Quarterly, 60*(2), 253–274. <http://doi.org/10.1086/297750>
- Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review, 107*(1), 101–126. <http://doi.org/10.1037/0033-295X.107.1.101>
- Wu, Y. (2014). Race/ethnicity and perceptions of the police: A comparison of White, Black, Asian and Hispanic Americans. *Policing & Society, 24*(2), 135–157. <http://doi.org/10.1080/10439463.2013.784288>

Yamamoto, S., & Takimoto, A. (2012). Empathy and fairness: Psychological mechanisms for eliciting and maintaining prosociality and cooperation in primates. *Social Justice Research*, 25(3), 233–255. <http://doi.org/10.1007/s11211-012-0160-0>

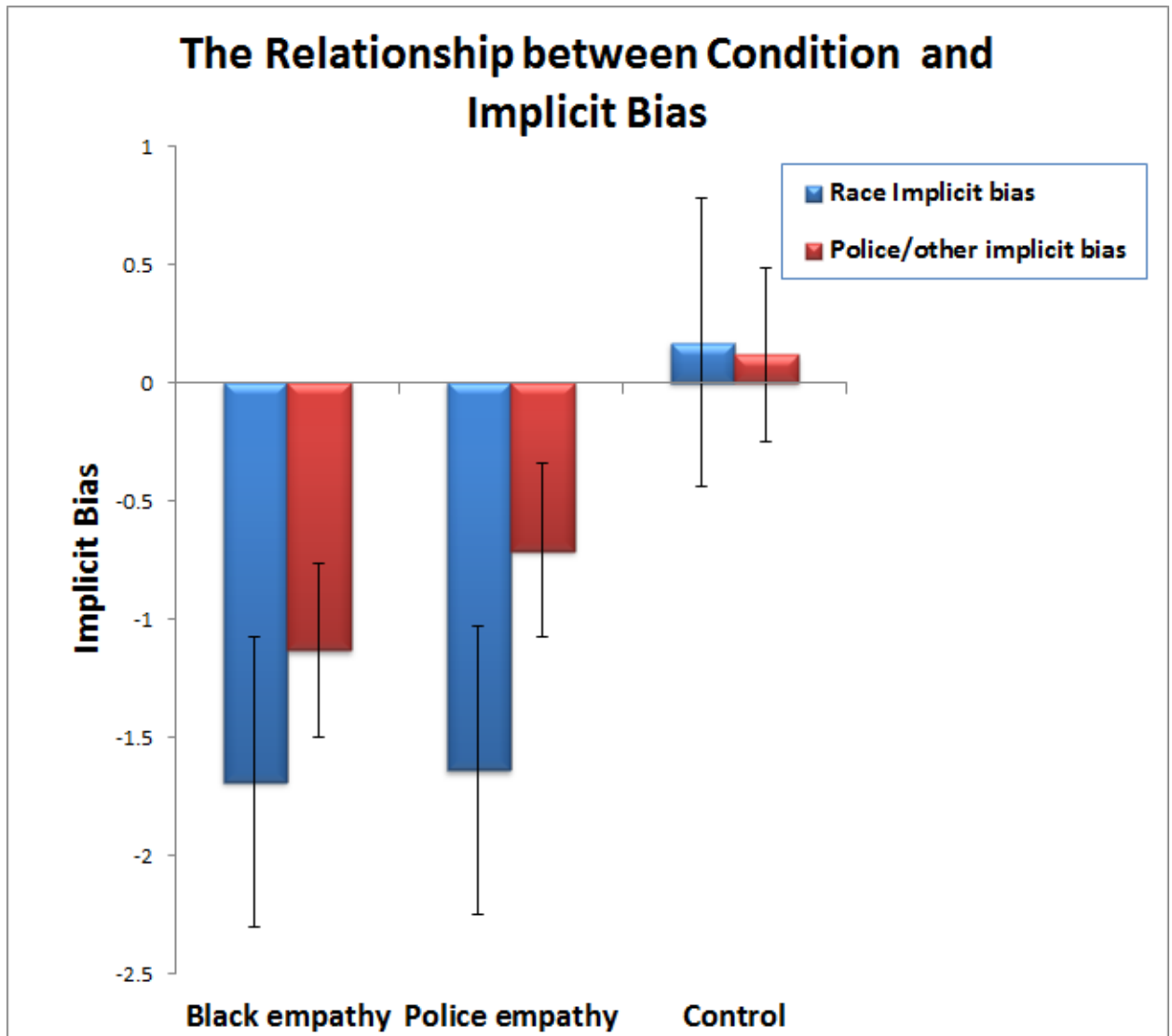


Figure 3. Graph of the relationship between participant’s condition and Race and Police/other implicit biases. Higher numbers for Race implicit bias mean more liking for Blacks. Higher numbers for Police/other implicit bias mean more liking for Police officer. The bars represent standard error.

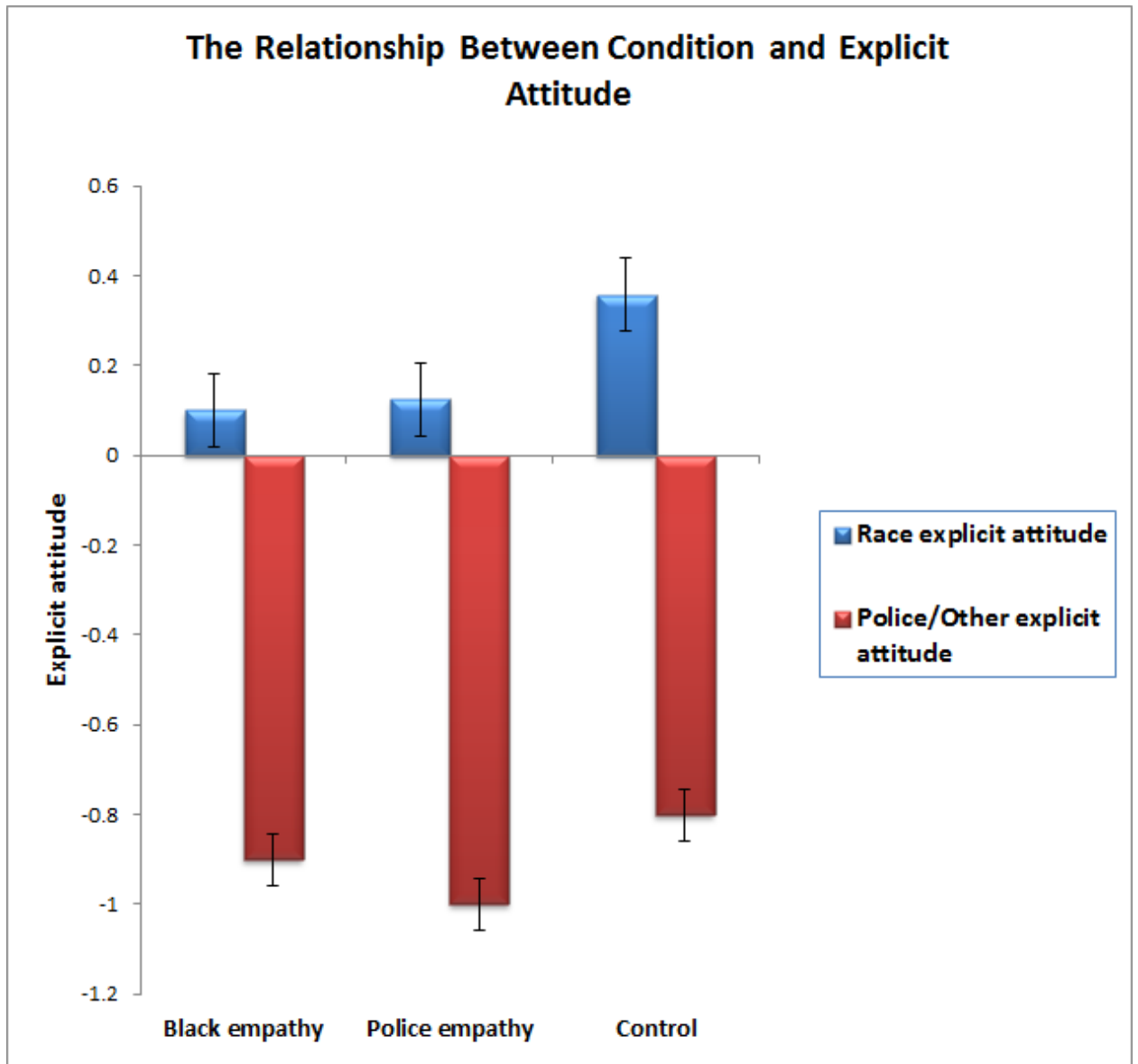


Figure 4. Graph of the relationship between participant’s condition and racial explicit attitude and explicit attitude towards Police. Higher numbers indicate preference for Blacks and preference for Police. The bars represent standard error.

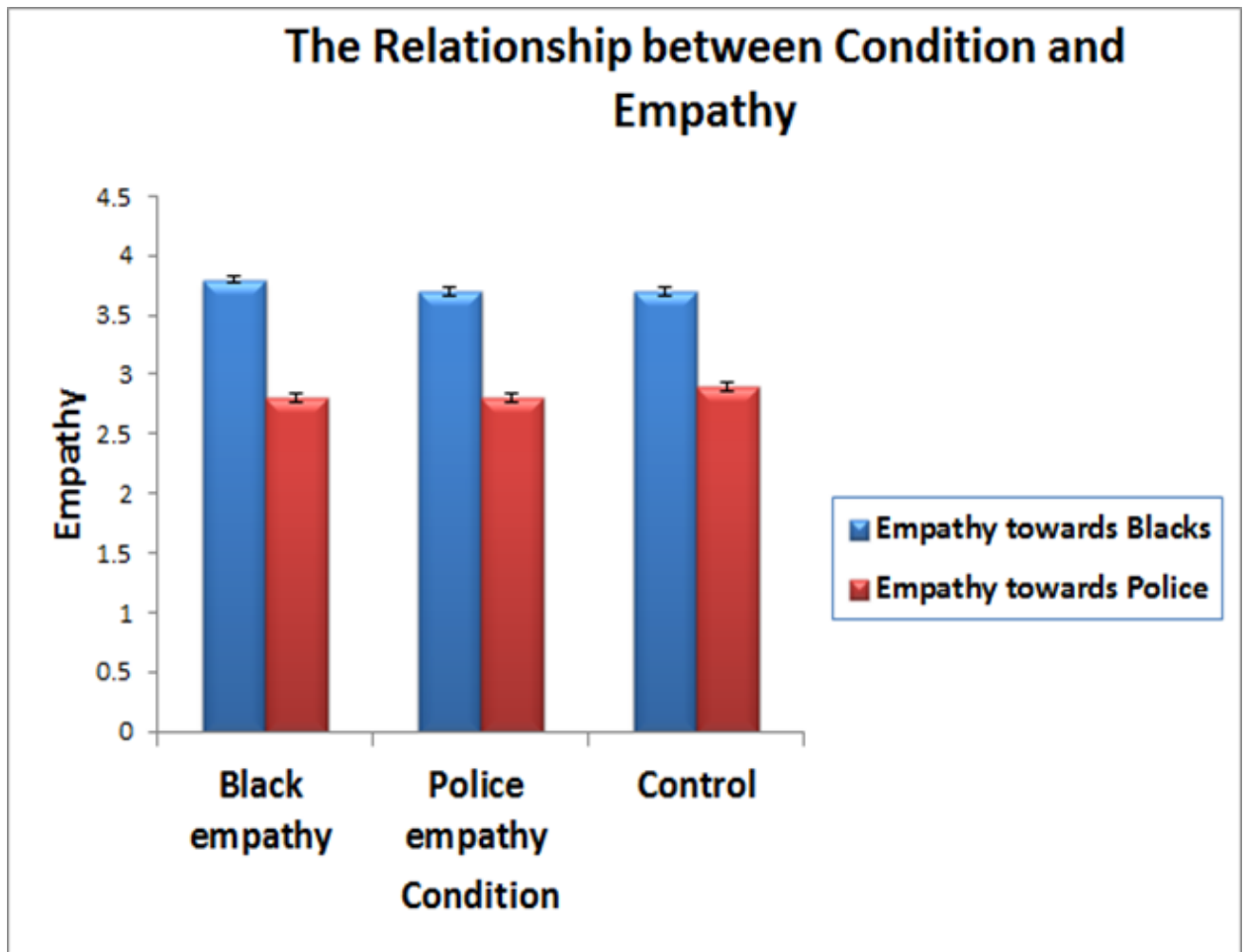


Figure 5. Graph of the relationship between participant's condition and their empathy towards Blacks and Police officers. Higher numbers indicate more empathy towards Blacks and Police. The bars represent standard error.

Appendix A- sample Police/African American explicit scale

1. How do you feel towards White people?

Very Warm	Warm	Neutral	Cold	Very Cold
1	2	3	4	5

2. How do you feel towards Black people?

Very Warm	Warm	Neutral	Cold	Very Cold
1	2	3	4	5

3. How do you feel towards police?

Very Warm	Warm	Neutral	Cold	Very Cold
1	2	3	4	5

4. How do you feel towards other professions?

Very Warm	Warm	Neutral	Cold	Very Cold
1	2	3	4	5

5. I prefer black people to white people

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

6. I prefer police officers to other professions

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

7. I like black people

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

8. I like white people

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

9. I like police officers

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

10. I like other professions

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

Appendix B: African American Empathy

Tamika Williams paused at her mother's casket, gently touching her mother's body as tears streamed down her face. Family and friends were mourning Mary Williams, the 55-year-old African-American mother of five, who had been shot more than a week prior by a police officer. After viewing her mother's body at the visitation, Tamika Williams told reporters that her feeling of pain and loss was not ebbing. "It's so hard," Williams said.

Mary Williams' death added to the mounting tension in a city whose police department faced scrutiny in the aftermath of a series of police-involved shootings. Within hours of her death, police acknowledged that Williams was killed by an officer who was responding to a disturbance involving her neighbor. Her neighbor was holding a baseball bat when the officer arrived at the scene and the officer opened fire, killing them both. During the preparation for the funeral, family and friends expressed frustration about the scant details that officials released about the shooting. The acting head of the Independent Police Review Authority (IPRA) confirmed some details about calls prior to the shooting, but declined to discuss the investigation in detail. "We're getting so little information," said the senior pastor of the church where Williams worshiped. "We have no reason to trust this so-called Independent Police Review Authority." City officials declined to release "static" evidence, such as 911 dispatch calls, or formally acknowledge if any police or security video from neighboring homes captured footage of the shooting.

Williams, who was a grandmother to nine, had been working at a bakery at the time of her death. "She was absolutely loved and adored her family and children; I have been left without a mother and my kids without a grandmother. She was only 55, she still had a life to live" Tamika said. "She was full of life and personality."

"We will not rest until we find out what really happened to Mary," Tamika said. "We will celebrate her life, even though we have a lot of unanswered questions."

Quotes taken from USAtoday

Appendix C- Police Officer Empathy

John Lewis had dreamt about becoming a police officer since he was a young boy. He came from an Irish-American family with a long tradition of service in the police force. Lewis was always passionate about helping people and trying to make a difference in his community. When he wasn't working, he was at a community outreach program that he led for at risk youths.

Lewis's world turned upside down one morning. The day began like any other – after getting ready for work, Officer Lewis stopped by the outreach center since it was on his way to work and spoke with some of the teenagers who were busy doing their homework before school. He arrived at work and about an hour into his day he and his partner decided to go and make rounds of the neighborhoods they patrol. They arrived at one of the neighborhoods that was well-known for gang violence and were at a stop sign when they noticed two well-known gang members approach them. Before they could drive away, the gang members pulled out guns and shot them “execution style.” Officer Lewis and his partner were pronounced dead at the scene.

Their captain gave a press conference the following day and he said, "When a police officer is murdered, it tears at the foundation of our society. It is an attack on all of us, when they are attacked; it is an attack on the very concept of decency." While in tears, he continued to speak, "I unconditionally condemn today's murder of two police officers. Two brave men won't be going home to their loved ones tonight, and for that, there is no justification.

"The officers who serve and protect our communities risk their own safety for ours every single day — and they deserve our respect and our gratitude every single day.

"Tonight, I ask people to reject violence and words that harm, and turn to words that heal — prayer, patient dialogue, and sympathy for the friends and family of the fallen.”

Quotes taken from USATODAY.COM

Appendix D- Neutral Passage

Violent encounters are common among animals in the wild. Sometimes the battles are epic. In a recent incident, a starving lion was cast out by his pride, and was forced to confront a fully-grown buffalo in a desperate bid to survive.

The lion had camped himself next to a watering hole hoping to attack unsuspecting buffalo, and pounced on this buffalo. The lion savagely bit and clawed at the buffalo's mouth, the big cat's face smeared with blood from where he'd been gored by his heavier and larger opponent's horns. The buffalo managed to shake the lion off himself, and then the animals stared at each other, too exhausted to move away from the threat. After a few minutes of rest the lion then attacked the buffalo again, and another ten-minute battle ensued. Once again the buffalo managed to shake himself free. This continued over and over for an hour until both animals were completely spent and could no longer move. This brutal battle left both animals bloodied, exhausted, and with fatal wounds. The rest of the herd of buffalo, who had come to the water to drink, was watching from a distance while the fight carried on. A member of the buffalo's herd came to its aid and delivered a deadly blow.

The feline was tossed around in the air as he attempted to mount his adversary and was finally finished off when the other buffalo arrived on the scene to deliver a lethal blow. That seemed to give the cow the opportunity it needed to escape and along with the rest of the herd moved off. Both animals were covered in blood. Two days later the lion succumbed to his injuries, while the buffalo's carcass was found two weeks later having failed to fight off infection.

Appendix E- Empathy Check

1. It is hard for me to see why some things upset African Americans so much.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

2. I find it easy to put myself in an African American's "shoes".

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

3. I get upset if I see African Americans suffering on news programmes.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

4. I empathize with African Americans.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

5. It is hard for me to see why some things upset Police Officers so much.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

6. I find it easy to put myself in a Police Officer's "shoes".

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

7. I get upset if I see Police Officers suffering on news programmes.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

8. I empathize with Police Officers.

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	2	3	4	5

Appendix F- Race IAT/ Police IAT

The paper IAT measures how many correct pairings a participant can make when sorting words into grouped categories. In each experimental trial, four categories are presented in two columns (two categories in each column). In the case of the Race IAT, the categories are black/white or good/bad. In the beginning trial, white may be paired with good on the left column and black may be paired with bad. Participants are given 20 seconds to sort words into either the “black or white” category or the “good or bad”. The category pairings are then switched and the procedure is repeated (i.e. “black or good” in the left column and “white or bad” in the right). A greater number correct in the “black or bad” column indicates that the participant more strongly associates black with bad.

Participants will be given verbal instructions and be timed by the experimenter.

Example of race IAT

Black		White
good		bad
<input type="radio"/>	Malik	<input type="radio"/>
<input type="radio"/>	Daniel	<input type="radio"/>
<input type="radio"/>	awesome	<input type="radio"/>
<input type="radio"/>	evil	<input type="radio"/>

Example of police IAT

Police		Other
good		bad
<input type="radio"/>	cop	<input type="radio"/>
<input type="radio"/>	awesome	<input type="radio"/>
<input type="radio"/>	engineer	<input type="radio"/>
<input type="radio"/>	evil	<input type="radio"/>

Sample Stimuli Category:

Good: awesome

Bad: evil, terrible, awful

Black: Jamal, Malik, Sharise

White: Daniel, John, Kelly

Police: cop, patrol, sheriff

Other profession: accountant, engineer, firefights

Appendix G- Consent Form**INFORMED CONSENT AGREEMENT**

Thank you for participating in this research study!

Background. The current study explores implicit bias in relation to empathy.

What you will do in this study. If you agree to participate in this study, you will complete a questionnaire, read a passage and complete measures assessing feelings and beliefs. The study will take approximately 15 minutes.

Risks and Benefits. Some people may find these passages upsetting but it has been very rare in previous studies and should not be more upsetting than what can be read on social media site.

Benefits. At the end of the session, you will be provided with information regarding the study background and predicted results. Any questions or concerns can be directed to the primary researcher, Chelsea Beckford, cb9969@bard.edu.

Compensation. In exchange for participating in the experiment, you will receive a candy bar of your choice. Your name will also be entered into a raffle with the chance to win a \$75 Amazon gift card.

Your rights as a participant. Your participation is completely voluntary. You may leave the experiment at any time with no questions asked and still receive compensation.

The experimenter will give you more information regarding the study after the session has ended. Any questions or concerns can be directed to the primary researcher, Chelsea Beckford.

Confidentiality. Your results will remain confidential. It is important to note that your answers to the questionnaires and IAT will be associated with your email address. Once we contact you about your status on the Amazon gift card raffle, all addresses will be deleted from the data set. All materials will be kept in the Bard Social Psychology Lab. You must be 18 years of age or older to participate.

If you have questions, concerns or would like to know more about the study and feel free to contact the primary researcher, Chelsea Beckford, cb9969@bard.edu. If you have any questions, you can reach Associate Professor Kristin Lane, advisor to this project, at lane@bard.edu. If you have questions about your rights as a research participant, please contact the Bard College Institutional Review Board: irb@bard.edu.

Name _____

Date _____

Appendix H- Verbal Consent Script

Hello! Thank You for participating in this study.

You must be 18 or older to participate in this study. Are you 18 or older?

If participant is not 18:

I'm so sorry; you cannot participate in this study today. Please be sure to sign up for experiments when you turn 18!

If participant is 18:

Great!

Before we begin, you should know that your participation in this study is completely voluntary. If you are ever uncomfortable for any reason you have the right to leave. There will be no questions asked and you will still receive a candy bar and have your name entered to win the gift card.

Your results will remain confidential. It is important to note that your answers will be associated with your email address. Once we contact you about your status on the Amazon gift card raffle, all addresses will be deleted from the data set. All materials will be kept in the Bard Social Psychology Lab where they can only be accessed by the primary researcher, academic advisor, and members of the advanced methodology lab.

Hand participant the packet

The following passage is based on a true story, you will have two minutes to read it carefully

Today, you will be completing a series of categorization tasks that will take 20 seconds each. As you can see, one side has the categories FLOWER and GOOD, and the other side has the categories INSECT and BAD. In 20 seconds, go down the list on the left column as fast as possible by checking which side the words in the middle belong to. If it is a Flower word like tulip or a Good word like happy, check the circle to the left. If it is an Insect word like mosquito

or a Bad word like murder, check the circle to the right. You don't have to fill in the circles, just check it. If you made an error, do not worry about it and just keep going down the list. If you finish the left column, just move on to the right column. Take a moment to look at the words that belong to each category here at the top. [Take a moment]. Okay. Please start and stop when I say so.

START. 20 SECONDS. STOP.

Alright, as you can see here in the next page, the categories have now switched. Now you have to categorize words that are FLOWER or BAD on the left side and words that are INSECT or GOOD on the right side. Take a moment to look at the words that belong to each category here at the top. [Take a moment]. Okay. Please start and stop when I say so.

START. 20 SECONDS. STOP.

Please turn to the next page. Take a moment to look at the words that belong to each category here at the top. [Take a moment]. Okay. Please start and stop when I say so.

START. 20 SECONDS. STOP. [X 6]

Please complete the questionnaires

Take packet when participant is finished

Thank you for your participation in this study. The following form will inform you of the details of this study.

Please feel free to take a piece of candy on your way out.

Appendix I- Debriefing Form

Thank you for participating!

The primary goal of this study was to determine the effects of empathy on race and police officer implicit bias. This study stemmed from my interest of how the media covers incidents of police brutality that occurred in Ferguson and is still occurring today.

What is empathy?

Empathy is the experience of understanding another person's condition from their perspective. You place yourself in their shoes and feel what they are feeling. Empathy is known to increase prosocial (helping) behaviors. (psychologytoday.com)

What about implicit bias?

Implicit bias is the bias in judgment and/or behavior that results from subtle cognitive processes (e.g., implicit attitudes and implicit stereotypes) that often operate at a level below conscious awareness. In this study, you were either in the police empathy, African American empathy or control condition. We hypothesized that being exposed to a paragraph that will illicit feelings of empathy would cause negative implicit bias to decrease for a certain group.

What is the IAT?

The Implicit Association Test, or IAT measures less conscious associations between words pairings. If you would like try some computerized IATs or learn more about how this works just visit https://implicit.harvard.edu/implicit_

What about the other measurements?

You filled out a questionnaire rating your explicit bias towards African Americans and Police Officers. Here we were interested in whether or not participants are explicitly biased towards either group. We also expect that participants exposed to the empathy paragraphs would express more or less implicit bias towards either group than rated in the questionnaire. This would suggest that empathy may have a significant effect on participants' implicit bias regardless of their explicit bias. You also filled out an empathy check scale to confirm that the paragraphs did affect your feelings of empathy towards either group.

If you have any questions, concerns or would like to learn more about the study and it's results, contact Chelsea Beckford at cb9969@bard.edu, If you have any questions about your rights as a participant, contact the Chair of the Institutional Review Board, Bard College, irb@bard.edu.

Appendix J- IRB Approval letter

Date: December 7, 2015

To: Chelsea Beckford

Cc: Kristin Lane, Megan Karcher

From: Pavlina R. Tcherneva, IRB Chair

Re: November 2015 Proposal revisions

DECISION: APPROVED

Dear Chelsea,

The Bard Institutional Review Board reviewed the revisions to your proposal. Your proposal is approved through December 7, 2016. Your case number is 2015DEC7-BEC.

Once you determine who your assistant will be, please forward us his/her human subject's certification.

Please notify the IRB if your methodology changes or unexpected events arise.

We wish you the best of luck with your research.

Pavlina R. Tcherneva
tchernev@bard.edu
IRB Chair