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Does Perceived Harm Depend on the Race of the Agent?

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THE FLORIDA STATE UNIVERSITY

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DOES PERCEIVED HARM DEPEND ON THE RACE OF THE AGENT?

By

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White Americans hold associations linking Black Americans with concepts like negativity, hostility, and physical threat (Wilson et al., 2017; March et al., 2021). Perhaps consequently, classic research has shown that when a Black versus White person is the agent of an ambiguously harmful behavior (i.e., a shove that could be playful or hostile) that action is perceived as more aggressive (Sagar & Schofield, 1980). Because White people perceive Black individuals' ambiguously aggressive behavior as more aggressive, people may anticipate higher levels of harm to result from Black people's behavior, leading to serious implications. Consider that police officers are about 3.5 times more likely to shoot an unarmed Black male versus an unarmed White male (Ross, 2015), perhaps due to heightened expectations of possible harm. This is just one of the likely many consequences that may result from people expecting to be harmed more by the same action from a Black versus White individual. The proposed study tests this idea by exploring whether the perception of harm via an electric shock is greater when the perceived agent of that shock is a Black versus White person and the implications of that for decisions to punish the agent.

The Black-Threat Association and Perceptions of Behavior

White individuals explicitly and implicitly associate Black individuals with many characteristics related to physical threat (Johnson et al., 2012; Wilson et al., 2017). Indeed, non-Black individuals perceive young Black males as taller, heavier, stronger, more muscular, and more capable of causing physical harm than young White men of the same stature (Wilson et al., 2017). These perceptions of Black individuals may be due to a Black-threat association, as White Americans automatically evaluate Black men as physically threatening over and above negativity (March et al., 2021). Thus, White people tend to associate Black people explicitly and implicitly

with physical threat, possibly altering how they perceive Black individuals' ambiguously aggressive behaviors.

Consider that when a behavior is ambiguous, the information provided about the agent may cause people to perceive the same behavior differently (Darley & Gross, 1983). For example, in one study, White and Black sixth-grade males read descriptions where a Black or White male student behaved in an ambiguously aggressive way (e.g., poked a student with a pencil continuously, bumped another student; Sagar & Schofield, 1980). Both Black and White students rated the Black agent as significantly meaner and more threatening. Similarly, in another study, White and Black undergraduates were more likely to perceive an ambiguous push as a violent act when the agent was Black (Duncan, 1976, 1979). Because people tend to perceive Black agents who behave in an ambiguously aggressive way as more threatening and perceive the behavior as more violent, people may assume the result of the Black agent's behavior results in more harm than the White agent's behavior.

In the same light, perceptions are driven by expectations. To the degree that one perceives an agent as more capable of harm than another agent, they may likewise perceive pain delivered by the "more harmful" agent as more painful, even if the harm is objectively identical. In other words, depending on the information given to people about the source of pain, people's pain perceptions may differ. Specifically, when people perceive a source of pain (i.e., the agent of that pain) as more capable of harm, they become more anxious, leading to higher pain expectancy (Wiech, 2009). Research indicates that when an individual is told to expect a higher versus lower level of pain, they classify the pain as more intense and more painful, even when the same objective intensity is experienced (Lim et al., 2020; Linton et al., 2011). Moreover, people who expected higher levels of pain reported experiencing approximately 20% more pain

than those who expected lower levels of pain, even though pain intensity was objectively the same for both groups (Atlas et al., 2010). Consequently, when people believe they will experience more intense pain, they perceive greater pain, regardless of the actual intensity of the pain stimulus. Thus, it is possible that resulting from the associations linking Black people with physical threat, people may expect to experience more harm from a Black versus White person. In turn, when a person is harmed by a Black versus White person, that person may report experiencing greater harm.

Present Research

I expected that White people who experienced pain ostensibly as the result of a Black versus White agent would report more harm. Specifically, in the current study, participants were paired with a Black or White confederate and played a game in which losing a trial resulted in the confederate ostensibly choosing the amplitude of an electric shock that the participant experienced. In reality, participants experienced an electric shock with a predetermined value. I expected that when the partner was Black versus White, White participants would (1) believe their partner chose a greater shock intensity for them to receive and (2) perceive greater harm from the shock, this would in turn (3) lead to more severe punishment when the participant won a trial and was given the chance to choose the shock level their partner would experience.

Methods

Participants

White undergraduate students were recruited via the Florida State University SONA System to participate in the study in exchange for course credit. There were 62 total White female participants, but 2 were deleted due to not correctly identifying the race or gender of their partner (i.e., the Confederate), resulting in a total of 60 usable White female participants. 23

participants were randomly assigned to the White confederate condition and 37 participants were randomly assigned to the Black confederate condition. Participant's ages varied from 18 to 23 ($M = 19.15$, $SD = 1.19$).

Procedure

Participants were assigned to the Black or White confederate condition based on when they signed up for the study and the confederate assigned to that timeslot. In both conditions, participants began in a waiting room where the confederate was already waiting. Participants and the confederate were led to two abutting rooms with outside entry doors. The participant was quickly introduced to the confederate and told that the confederate was the participant with whom they would be completing the task, but that they would complete the task in separate rooms.

Once consent was obtained, participants were hooked up to the Biopac STIMSOLA with two electrodes on their left forearm. Researchers then calibrated the shock, so that the electric shock participants received in the study was rated a seven out of ten based on uncomfortableness. Experimenters started at 50V increasing by 5 until the participant rated the shock as a seven out of ten. All shocks were administered for 2ms. As a result, shock intensity varied based on the participant's idiosyncratic thresholds. The shock portion of the study was run through the software E-Prime.

Participants then engaged in a reaction-time task where they were told that if they "lost" (i.e., reacted slower than the other participant (i.e., the confederate)), they would receive a shock of which the intensity was set by the other participant. If they "won" (i.e., reacted faster than the other participant), they would have to choose the shock intensity the other participant would receive.

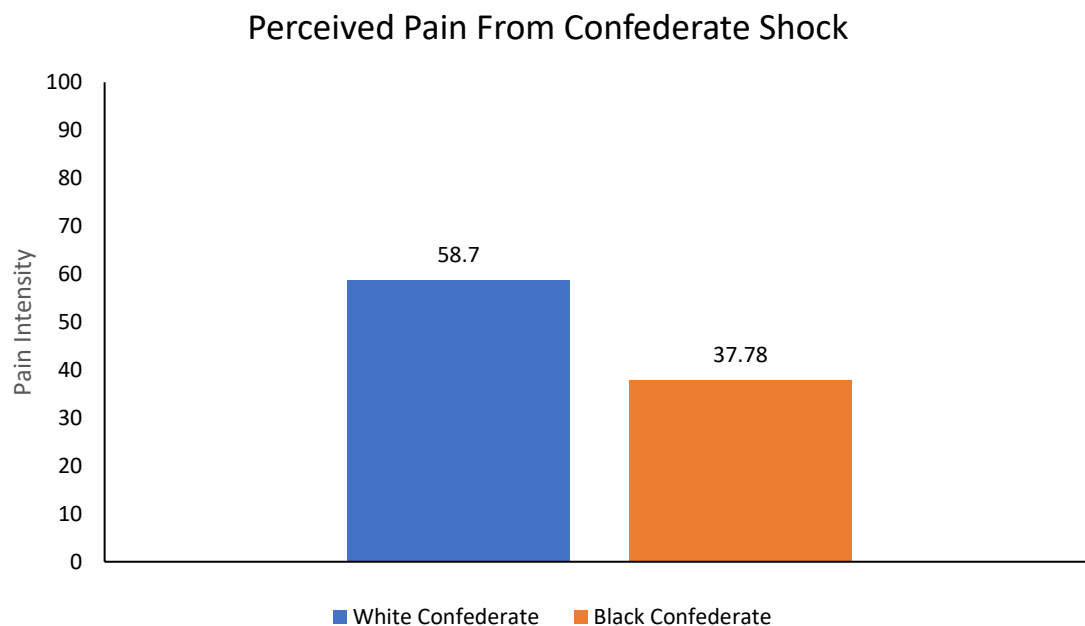
In the reaction-time task, participants were asked to categorize a fruit or vegetable as a fruit or vegetable as quickly as possible. The program was predetermined such that the participants “lost” the first trial. Participants were then shocked at the same intensity they labeled a seven on the one to ten uncomfortableness scale during the calibration stage. After participants received the shock they believe the other participant chose, they were asked about the perceived harm (i.e., *Please indicate how harmful the shock you just experienced was*) on a 0-100 scale (0 = *not harmful at all*, 100 = *very harmful*) and perceived shock intensity (i.e., *Please indicate the estimated shock level you believe the other participant selected for you to receive.*) on a 1-10 scale. On trial 2, all participants were told they won and must choose the shock intensity that the other participant would receive (i.e., *Please indicate the shock intensity you would like to shock your partner, using the scale below.*) on a 1-10 scale.

One consideration is that previous work indicates that White participants fear higher levels of retaliation when their opponent is Black. Consequently, participants may choose to lower their chosen intensity if they worry about future loss trials. Thus, participants were also asked about whether they feared that their partner would retaliate (i.e., *Please rate the degree to which you are fearful of the other participant retaliating during the next round.*) on a 1-7 scale (1 = *not fearful at all*, 7 = *very fearful*) and how much that fear of retaliation impacted the shock intensity they chose for the other partner to receive (i.e., *Please rate the degree to which your fear of the other participant retaliating during the next round impacted the shock intensity you chose for the other participant.*) on a 1-7 scale (1 = *did not impact my decision at all*, 7 = *impacted my decision a lot*). Although we recorded their response, this data is secondary and exploratory and not discussed in the current document.

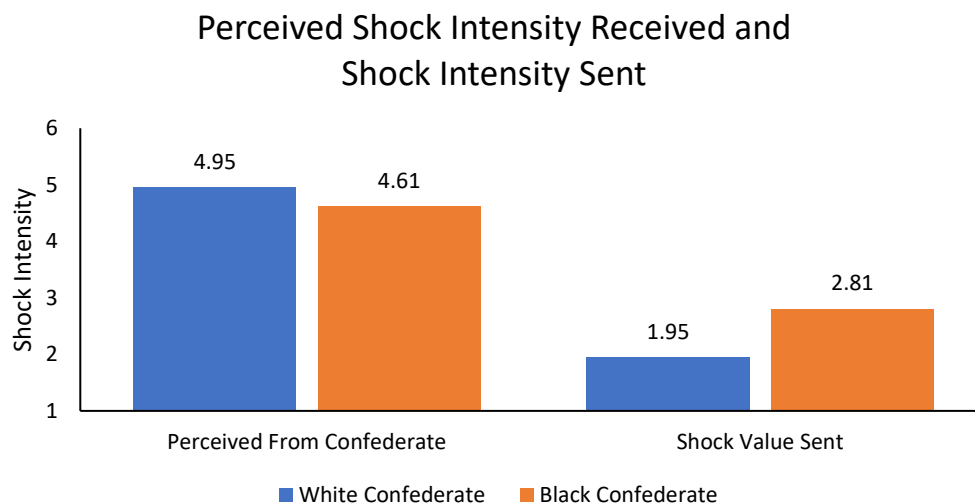
After the reaction-timed task, participants completed the Pain Sensitivity Questionnaire (see Appendix A; Ruscheweyh et al., 2009) to account of personal pain tolerance and the confederate questionnaire (see Appendix B) to account for potential explicit perceptions of the confederate (e.g., kindness, dangerousness) that could impact the variables of interest. Participants were also asked about their experiences to gauge their suspicions about the study. Finally, participants completed the Race/Ethnicity Expectations of Pain Questionnaire (see Appendix C; Wandner et al., 2012), as people tend to misperceive Black people as having a higher pain tolerance than White people (Hoffman et al., 2016).

Results

To determine whether harm perception differed depending on the confederate's race, I regressed harm perception onto the confederate's race. The results indicated that harm perception differed significantly based on confederate race, $F(1,57) = 8.51, p = .005$, such that participants perceived greater harm from White ($M = 58.7, SD = 23.07$) than Black ($M = 37.78, SD = 28.99$) confederates (see Figure 1).



However, participants perceived shock intensity received from the confederate did not significantly differ based on the confederate's race, $F(1,57) = 0.32, p = .575$ (see Figure 2). Lastly, I examined whether the race of the confederate differentially impacted the shock intensity chosen by the participant for the confederate to receive. To do so, I regressed selected shock intensity for confederates on confederate race, which indicated a trending effect, $F(1,57) = 2.71, p = .105$, such that participants chose a slightly higher shock intensity for the Black ($M = 2.81, SD = 2.32$) versus the White ($M = 1.96, SD = 1.07$) confederate to receive (see Figure 2).



Discussion

The current study explores the interaction between perceived harm and the race of the agent. Results indicated that there was a significant difference in the harm perceived by participants based on the race of the agent but in the opposite direction as hypothesized. Participants perceived the shock from the White versus Black confederate as more harmful. However, contrary to my hypothesis, there was a nonsignificant difference in the perceived shock intensity based on the confederate's race. Ingroup harm (i.e., the shock from the White confederate) may be perceived as more harmful than the perceived equally intense outgroup

harm (i.e., the shock from the Black confederate). Individuals may hold expectations, such as not harming ingroup members, thus perceiving ingroup harm as less appropriate and more harmful. Future research should explore the possibility.

Lastly, exploratory analyses indicated that there was a trending effect, such that participants chose to punish the Black versus White confederate with a more intense shock. While more research is needed, this could indicate a higher willingness to inflict harm on Black individuals, as previous research illustrates that ingroup favoritism enables discriminatory action (Greenwald & Pettigrew, 2014). This effect has severe implications in many contexts, such as police-civilian interactions. It may also be that people perceive Black individuals to experience less pain than White individuals (Hoffman et al., 2016). Indeed, participants in the current work indicated via the Race/Ethnicity Expectations of Pain Questionnaire that they expect Black individuals to experience less pain than White individuals. Consequently, participants may assume (either implicitly or explicitly) that higher intensity shocks are necessary to create the same amount of harm as with a White partner.

Although the current work is the first to my knowledge to explore whether the race of the agent impacts perceptions of physical harm to the self, there are a few limitations that future work can address. First, the sample was only 60 participants and only included White women. Knowing that pain perception varies by gender results could be different if men were included in the sample (Weisenfeld-Hallin, 2005). The study was also limited by the fact that the confederates used were only female. Further investigation related to these effects would benefit from a more diverse sample, which would allow for the results to be more generalizable to other ethnic/racial groups as well as both genders. Further, participants were in a separate room from the confederate. The lack of face-to-face exposure while the harm was inflicted could have

impacted results, as a more direct event may have made participants more likely to access racial stereotypes.

These findings underscore the complex nature of racial biases and highlight the need for research to disentangle the underlying mechanics that shape how these biases are accessed as well as presented. A deeper understanding of the way these biases present themselves as they relate to the perception of pain would allow for a greater ability to develop interventions aimed at reducing racial disparities.

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Appendix A: Pain Tolerance Questionnaire

This questionnaire contains a series of questions in which you should imagine yourself in certain situations. You should then decide if these situations would be painful for you and if yes, how painful they would be. Let 0 stand for no pain; 1 is an only just noticeable pain and 10 the most severe pain that you can imagine or consider possible. Please mark the scale with a cross on the number that is most true for you. Keep in mind that there are no “right” or “wrong” answers; only your personal assessment of the situation counts. Please try as much as possible not to allow your fear or aversion of the imagined situations affect your assessment of painfulness.

1. Imagine you bump your shin badly on a hard edge, for example, on the edge of a glass coffee table. How painful would that be for you?
2. Imagine you burn your tongue on a very hot drink. How painful would that be for you?
3. Imagine your muscles are slightly sore as the result of physical activity. How painful would that be for you?
4. Imagine you trap your finger in a drawer. How painful would that be for you?
5. Imagine you take a shower with lukewarm water. How painful would that be for you?
6. Imagine you have mild sunburn on your shoulders. How painful would that be for you?
7. Imagine you grazed your knee falling off your bicycle. How painful would that be for you?
8. Imagine you accidentally bite your tongue or cheek badly while eating. How painful would that be for you?
9. Imagine walking across a cool tiled floor with bare feet. How painful would that be for you?

10. Imagine you have a minor cut on your finger and inadvertently get lemon juice in the wound. How painful would that be for you?
11. Imagine you prick your fingertip on the thorn of a rose. How painful would that be for you?
12. Imagine you stick your bare hands in the snow for a couple of minutes or bring your hands in contact with snow for some time, for example, while making snowballs. How painful would that be for you?
13. Imagine you shake hands with someone who has a normal grip. How painful would that be for you?
14. Imagine you shake hands with someone who has a very strong grip. How painful would that be for you?
15. Imagine you pick up a hot pot by inadvertently grabbing its equally hot handles. How painful would that be for you?
16. Imagine you are wearing sandals and someone with heavy boots steps on your foot. How painful would that be for you?
17. Imagine you bump your elbow on the edge of a table (“funny bone”). How painful would that be for you?

Appendix B: Partner Questionnaire

1. Please rate the degree to which you believe the participant you completed the task with is kind and/or mean.
 - a. 1 = not kind 7 = very mean
2. Please rate the degree to which you believe the participant you completed the task with is dangerous.
 - a. 1 = not dangerous 7 = very dangerous
3. Please describe how likely you are to trust the participant you completed the task with in a future interaction.
 - a. 1 = not likely 7 = very unlikely
4. Please rate the degree to which you would feel uncomfortable if you had to interact with the participant you completed the task with in a face-to-face interaction.
 - a. 1 = not comfortable 7 = very uncomfortable
5. Please rate the degree to which you believe the participant you completed the task with is moral.
 - a. 1 = not moral 7 = very immoral
6. Please rate the degree to which you believe the participant you completed the task with is aggressive.
 - a. 1 = not aggressive 7 = very aggressive
7. Please rate the degree to which you would want to be paired with the same participant if given the opportunity to engage in the same task.
 - a. 1 = not at all 7 = very much

8. Please rate the degree to which you would want to be paired with the same participant if given the opportunity to engage in a different task.
 - a. 1 = not at all 7 = very much
9. Please rate the degree to which you would avoid the participant if you saw them outside of this study.
 - a. 1 = not likely 7 = very likely
10. Please rate the degree to which you would want to be friends with the participant you completed the task with.
 - a. 1 = I definitely want to be friends 7 = I definitely do not want to be friends
11. Please provide what you believe is the other participant's political orientation.
 - a. 1 = Extremely Liberal 7 = Extremely Conservative
12. Please provide what you believe is the other participant's college GPA, ranging from 0.00 to 4.00.
13. Please provide what gender you believe the participant who completed the task with identifies as.
 - a. Male, Female
14. Please provide what race you believe the participant who completed the task with identifies as.
 - a. Black or African American, White or European American
15. Please provide an estimate of the other participant's height in inches. The scale ranges from 60 inches (5ft) to 78 inches (6ft 6in)
16. Please provide an estimate of the other participant's weight in pounds.

17. Please rate the degree to which you find the other participant attractive.

a. 1 = extremely unattractive 7 = extremely attractive

Appendix C: Race/Ethnicity Expectations of Pain Questionnaire (Wandner et al., 2012)

1. What is the typical Black person's sensitivity to pain?
 - a. 0 = not at all sensitive, 100 = most sensitive imaginable
2. What is the typical White person's sensitivity to pain?
 - a. 0 = not at all sensitive, 100 = most sensitive imaginable
3. What is the typical Black person's willingness to report pain?
 - a. 0 = not at all willing, 100 = most willing imaginable
4. What is the typical White person's willingness to report pain?
 - a. 0 = not at all willing, 100 = most willing imaginable