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The Role of Race in Perceptions of Interrogation and Confession

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Abstract

To date, of the 2,783 individuals who have been exonerated after their convictions have been overturned, 339 (12%) have involved the contributing factor of a false confession; of these individuals 53% were Black. Studies have demonstrated that confession evidence is powerfully incriminating against a defendant. The over-representation of Black defendants who have been convicted following false confessions raises the question: Is race a factor that contributes to the circumstances that result in the acceptance of a false confession? Very little is known about whether the race of the suspect or the race of a potential juror impacts the perceptions of an interrogation and the resulting confession. The current research evaluated participants' perceptions of features of an interrogation and a confession by rating the voluntariness of the suspect's statements, the degree the interrogation was coercive, and the degree to which they felt the suspect was guilty. Participants ($n = 158$) listened to an audio recording of an interrogation that resulted in a confession and completed a survey about their perception of the interrogation; half of the participants were told that the suspect was White and half were told the suspect was Black in a 2 x 2 design that also allowed for comparison of ratings based on the race of the participant. Ratings of voluntariness of the confession and likelihood of the suspects' guilt did not differ by race of the participant or suspect, although ratings of the coerciveness of the interrogation differed by participant race in the White condition. Thus, despite the majority of participants rating the detectives' tactics as coercive, approximately half still judged the suspect as guilty, which is consistent with previous research (Shifton, 2019). Overall, participants' ratings of coerciveness indicate a degree of sensitivity to their in-group members' experiences when interacting with police, which is consistent with previous research (e.g., DeSantis & Kayson, 1997; Hymes et al., 1993; Klein & Creech, 1982).

Keywords: false confession, interrogation, coercion, race

The Role of Race in Perceptions of Interrogation and Confession

Racial disparities in the U.S. criminal justice system are a long-standing, established issue (Donnelly, 2017). People of color make up 40% of the U.S. population (i.e., 13% Black, 18% Hispanic or Latino, and 9% other; U.S. Census Bureau, 2019), yet people of color make up 67% of the prison population (The Sentencing Project, 2019). Of the prison population, Black Americans constitute 38.1% of incarcerated people (Federal Bureau of Prisons, 2020). Overall, Black Americans are more likely to be arrested, compared to White Americans, and are also more likely to be convicted and receive a harsher sentence (Steffensmeier et al., 1998; The Sentencing Project, 2019).

The disproportionate representation of people of color in the criminal justice system is striking, and these numbers are just as striking when examining those individuals who have been wrongfully convicted and later exonerated. Between 1989 and 2021, 2,783 individuals have been exonerated, of which 1384 (50%) are Black. Of the 2,783 exonerees, 339 (12%) have involved the contributing factor of a false confession (National Registry of Exonerations, 2021). Of the 339 exonerees who falsely confessed, 179 (53%) were Black. These numbers raise the question: Is race a factor that contributes to the circumstances that result in a false confession? To date, there is little research that has examined this very critical feature.

In criminal proceedings, confession evidence has been found to be powerfully incriminating against a defendant (Kassin & Neumann, 1997). It has been shown to increase the likelihood of a conviction, even when the confession is seen as coerced (Brimbal & Jones, 2018; Drizin & Leo, 2004; Leo & Ofshe, 1998; Kassin et al., 2010; Kassin & Sukel, 1997). Additionally, for decades, there has been concern about police practices that may result in suspects making false incriminating statements (Kassin et al., 2010).

The police employ a number of tactics to achieve the emotional states associated with making a confession (Kassin et al., 2010). The Reid Technique, named after former Chicago police investigator John Reid, is considered to be the most commonly used interrogation method in America (Leo, 2017). The main goal of the Reid Technique is to elicit a confession (Hartwig et al., 2005). This is achieved through a detailed, guilt-presumptive nine-step procedure that relies on pressure and persuasion, increasing a suspect's anxiety of denial, while decreasing stress linked to a confession. Although the purpose of the interrogation process is to elicit incriminating statements from the person in question, certain people are at a higher risk to falsely confess due to dispositional factors. The two most commonly cited dispositional risk factors for false confessions include the suspect's age (young adults and juveniles are especially susceptible) and mental impairment (e.g., mental illness, intellectual disability; Kassin et al., 2010), although situational factors, such as length of the interrogation and fatigue, have also been found to increase the likelihood of a false confession (e.g., Drizin & Leo, 2004; Shiffton, 2019).

According to the U.S. Constitution, the Sixth Amendment establishes the right of a defendant charged with a crime to a trial by an impartial jury (Anwar et al., 2012; Bradbury & Williams, 2013). Jurors are expected to listen and evaluate evidence presented at trial, deliberate with one another, and render a verdict. Thus, an enormous amount of responsibility relies on a panel of ordinary citizens. It is well known that jurors place substantial weight on confessions when rendering a verdict, and that a false confession may lead to an assumption of guilt, even when the defendant has recanted the confession and/or when there is contrary evidence (Leo & Liu, 2009; Shiffton, 2019). Mock jury studies suggest that even when jurors recognize that interrogators used coercive strategies to elicit a confession, their ultimate judgements of the defendant's guilt do not change (Kassin & Suckel, 1997; Shiffton, 2019).

In an early and often cited study, Kassin and Sukel (1997) suggested the need for research to examine the impact of methods of interrogation (e.g., promises, threats, presentation of false evidence) and situational factors of an interrogation setting (e.g., number of interrogators, length of detention, and availability of food and sleep) on jury perceptions of evidence strength. More recently, Shifon (2019) investigated such factors (i.e., length of interrogation, number of interrogators, and the suspect's fatigue) and their influence on mock jurors' judgments about a confession in two experimental studies. The first study involved 200 undergraduate participants who read a seven-page trial transcript related to a fictional aggravated assault. Shifon utilized a 2 (1 vs. 3 interrogators) x 2 (1 vs 6 hours of interrogation) x 2 (suspect rested: arrested in the morning after having a full night sleep vs highly fatigued: arrested in the morning after having worked an overnight shift) design and postulated that the presence of more interrogators, a long interview, and high fatigue would result in lower perceived strength of the confession but not enough to significantly impact the jurors' verdict. The trial transcript included three witnesses and three pieces of evidence: eyewitness testimony from a neighbor, laboratory blood typing of blood found on the defendant's clothing from the lab technician who performed the analysis, and a summary of the defendant's confession delivered by the police officer who obtained the confession. Shifon (2019) found no differences in respondents' ratings of evidence strength across any of the conditions. It did not appear that participants considered interrogation factors in weighing the strength of the suspect's confession.

To see if the findings generalized to a more heterogeneous sample, Shifon conducted a subsequent study with a sample of 339 non-student adults who participated online. Because of the online presentation, the trial materials were presented in a narrative summary rather than the more complete trial transcript utilized in Study 1. Also, an additional condition was added: An

expert witness testified about how each situational factor generally decreases the reliability of a defendant's confession. Lastly, the longer interrogation was lengthened to 16 hours. In contrast to the findings of Study 1, respondents' ratings differed by condition, in that they placed greater weight on factors such as interrogation length and the suspect's sleep deprivation in evaluating the voluntariness of the confession and the likelihood that the confession was false. Longer interrogations resulted in lower ratings of strength of the confession and lower ratings of the voluntariness of the confession, and higher ratings on perceived likelihood of a false confession. The defendant who was interrogated after working all night also had lower ratings of the perceived strength of the confession. Additionally, as the number of interrogators increased, ratings of confession strength decreased. Last, the verdict (guilty versus not guilty) was influenced by the length of the interrogation (i.e., 35% voted to convict following 16-hour interrogation vs. 55% voted to convict following 1 hour interrogation) and the defendant's fatigue (i.e., there was an increase in the likelihood the confession was false for the defendant who was highly fatigued after working all night). The main predictors of the verdict were perceptions of the strength of the case, and the likelihood of a false confession and voluntary confession.

Shifton's two studies have important implications: The first study suggested that interrogation factors impact the perceived strength of a confession but have little impact on the verdict rendered and the second study identified interrogation length to have the greatest impact on jurors' perception and verdict (Shifton, 2019).

Since race, in particular, is an important factor that appears to influence legal outcomes, it is worth reviewing the role of race in the criminal prosecution process, especially regarding jury decision making. The impact of defendant race on jury decision-making is complex and has

resulted in inconsistent findings (Sommers, 2007). Over the years, there have been more studies examining the influence of a defendant's race on jurors' decisions, differences observed in the decision-making of jurors of various races, and the effects of jury racial composition on verdicts and deliberations (Sommers, 2007). Empirical studies in this area have involved investigating the influence of defendant's race primarily on White mock jurors' perception of Black defendants in light of the previously described inequities in Black defendant's treatment in the criminal justice system (Sommers, 2007; Sommers & Ellsworth, 2001). Some studies have concluded that a defendant's race has no consistent effect on White jurors' judgments (e.g., McGuire & Bermant, 1977; Skolnick & Shaw, 1997), whereas other studies have found that White jurors are harsher towards same-race (i.e., White) defendants compared to out-group (non-White) defendants (McGowen & King, 1982; Poulson, 1990). However, a larger body of research suggests that White mock jurors' judgments are harsher towards out-group (non-White) defendants compared to in-group (White) defendants (e.g., DeSantis & Kayson, 1997; Hymes et al., 1993; Klein & Creech, 1982).

Although the role of race has been examined in the mock juror literature, there have been very few studies that have explicitly looked at race of the suspect when considering perception of a suspect's guilt and the voluntariness of a suspect's confession (Ratcliff et al., 2010; Smalarz et al., 2018). In fact, all of the studies that have been conducted used simulated interrogation, presented either via videotape or a transcript. These studies have found that race of the suspect had an effect on the judgments about likelihood of guilt (Ratcliff et al., 2010; Smalarz et al., 2018). Specifically, Ratcliff et al. (2010) found that suspects of color who made self-incriminating statements were judged to be more voluntary and to have a higher likelihood of guilt than White suspects who had made the same statements. Similarly, although findings did

not reach significance, Smalarz and colleagues' (2018) results indicated that when the defendant was stereotypic of the crime (e.g., Arab-American accused of a terrorist attack), the presence of the confession increased the perception of the defendant's guilt regardless of the interrogation tactics used to obtain it. Moreover, Shifton (2019) examined participant race in post hoc analyses and found significant differences by participant race on various features of the interrogation. Generally, participants of color (POC) found evidence to be weaker and rated the confession to be more likely false and less voluntary than did White participants. The data suggested that race of participant influenced assignment of guilt, but the small percentage of POC (11%) did not allow for firm conclusions about race as a factor (Shifton, 2019). This finding points to the need for study samples to have larger percentages of people of color.

To date, no studies involving confession evidence have examined both the potential jurors' and the defendant's race in judgments about the voluntariness of a confession, level of perceived guilt, and degree of coercion involved in the interrogation. To further fill a gap in the literature, the current study used a recording of an actual interrogation that resulted in a proven false confession and used a sufficiently large group of POC to allow for examination of potential differences in judgments of a coerced confession. The primary aim was to investigate whether the race of the participant/potential juror or the race of the suspect impacted the participants' ratings of features of an interrogation that resulted in a false confession. Additionally, we aimed to further understand participants' reactions to and judgments about the detective-suspect interaction they heard to provide context for participants' ratings regarding voluntariness of a confession, perceived level of guilt, and degree of coercion used in the interrogation. Last, we asked participants to rate their perception of commonly used tactics police are trained to use

during interrogation. Together, we hoped that understanding this relationship would help shed light on how systemic racism may impact features of criminal prosecution.

Method

Participants

A total of 217 participants completed the study. The demographics of the total sample are located in Table 1. As can be seen, the mean age of participants was 20.12; the majority identified as Female ($n = 170$; 63%) and as White/European American ($n = 114$, 53%). Participants were recruited using three different strategies. The majority of participants were recruited through a participant pool operated by a psychology department in a medium-size university in the Midwest; the remaining participants were recruited through a faculty member at a private university that resided in a more diverse environment or via a snowball sampling method. One of the independent variables of the study was the race of the suspect that was presented in the description for the audio recording. Manipulation checks were used to assure that participants correctly identified the race of the suspect. Participants who did not pass the manipulation check by correctly identifying the suspect's race were eliminated. This resulted in a final sample of 158 participants. The demographic characteristics of the final sample are also presented in Table 1; the initial sample and the final sample did not differ significantly in any of the demographic characteristics.

Stimuli

Participants listened to excerpts of an audio recording of an actual interrogation obtained from a publicly available source. The audio was 4 minutes and 28 seconds in length (see Appendix A). The original audio involved two White detectives questioning a White suspect about the murder of the suspect's aunt and uncle. In the later parts of the interview, the detectives

harshly questioned and accused the suspect of murdering his aunt and uncle; at the end of the session, the suspect confessed to the crime. The actual interrogation lasted for 7-hours and the confession made by the suspect was eventually shown to be false. Prior to hearing the audio recording, participants read a description (see Appendix B) of the circumstances surrounding the questioning, including the nature of the accusation and basic information about the suspect. This description varied only in the race of the suspect; some of the participants read a description in which the suspect is identified as White (see Appendix B, Description 1) and the others read a description in which the suspect is identified as Black (see Appendix B, Description 2). While the audio was playing, a transcription of the interrogation was shown on the screen, to ensure that the participant understood what was being said (see Appendix C). Given the stereotypical associations between an individual's voice and their race, the audio recording for the Black condition (see Appendix A, Audio B) was modified to more closely align with those stereotypes.

The study stimuli were piloted to assess the average length of time required to complete the study, as well as to verify that the manipulated audio recording was believable for the Black condition. This included a total of 11 individuals. Of the 11 individuals, six identified as people of color and five identified as White. Three people were administered the White condition and eight individuals (5 of whom were people of color) listened to the altered audio recording and were told that the suspect was Black. Two of the eight (25%) questioned the race of the suspect and perceived him to be White; the other six believed the race of the suspect and did not question if the audio voice had been manipulated.

Measures

Demographic Information. For all participants recruited through the participant pool and the other private university, demographic information was obtained after participation in the

study using a demographic form (see Appendix D). The demographic information included the participant's current age, education level, major area of study, identified sex, race, ethnicity, current city and state of residence, income, political affiliation and if any immediate or extended family members are employed in law enforcement. Because we were specifically recruiting for POC when we used the snowball recruitment strategy, we moved the demographic questionnaire to the beginning of the study and used that to qualify individuals to complete the study.

Individuals who began the study who indicated a race other than White were allowed to proceed to the rest of the study; individuals who chose "White" or "prefer not to respond" to the question about race were thanked for their willingness to participate but did not have access to the remainder of the study.

Survey. Participants completed an online survey via Qualtrics after listening to the audio recording (see Appendix E). The questions were in four topics: perception of the audio recording, perceptions of the interrogation methods (i.e., coerciveness of tactics used by police during interrogation), perceptions of the relationship between dispositional risk factors and false confessions, and general questions. Survey questions were derived from Mindthoff and colleagues' (2018) supplemental material about perceptions of interrogations and confessions. Many items from this survey were identical to those used by Mindthoff et al. (Qs 11-15, 19-24, 26, 37) but some were modified (Qs 9-10, 16-18, 27, 36) to avoid the use of "charged" words regarding the interrogation (e.g., confronted, manipulated, police, criminal). In addition, we added specific questions related to the audio recording (Qs 1-8; 38-42); these questions were developed by a research team comprised of two graduate students and two undergraduate students, under the direction of a faculty member; general questions were developed regarding the use of coercive techniques and the likelihood a suspect will confess, irrespective of the audio

recording (Qs 28-35). Last, questions were developed capturing attitudes about police behavior and encounters with the police (Qs 43-46). The survey also provided a definition of coerciveness that was adapted from Mindthoff and colleagues' (2018) definition (See Appendix E).

Questions that were specific to the audio recording served as the dependent variables in this study. These asked participants to rate the voluntariness of the suspect's confession (Q 4), the suspect's level of guilt (Q 6a), and the degree to which the confession was coerced (Q 7). Another question that was analyzed regarded the coerciveness of tactics used by the detectives in the audio recording (Q 8). Additional questions were analyzed regarding the coerciveness of general interrogation tactics (Qs 9-15) and the degree to which it is permissible for detectives to use coercive tactics (Q 28); these questions were about general interrogation tactics, not with specific reference to the audio confession.

Manipulation check. Participants were asked four questions (see Appendix E; Q 36, 38-40) at the end of the survey about features of the interrogation to provide a general indication of the amount of detail participants attended to and were able to recall. Specifically, they were asked to identify the race and name of the suspect, the number of detectives involved in the interrogation, and how long the interrogation lasted. Of the participants who received the White condition, 79.6% ($n = 74$) correctly identified the suspect as White. Of the participants who received the Black condition, 67.7% ($n = 84$) correctly identified the suspect as Black. Because the suspect's race was an independent variable, participants were eliminated from analyses if they did not correctly identify the suspect's race, yielding a final sample of 158 participants were included in analyses.

Although not used to eliminate participants, of the total sample ($N = 217$), 58% ($n = 126$) correctly identified the suspect's name and 38% ($n = 84$) reported not knowing or that they never

heard a name. Regarding the number of detectives, 87% ($n = 189$) of the total sample correctly identified that two detectives were present during the interrogation and 94% ($n = 204$) correctly identified that the length of the interrogation.

Procedure

Permission for the study was obtained from the Xavier University Institutional Review Board (IRB; see Appendix F). Upon IRB approval, Xavier's students were recruited through typical steps required for the School of Psychology participant pool. The majority of participants ($n = 99$; 62.7%) were recruited through the Xavier University School of Psychology participant pool using the existing online mechanisms of rewarding credit for research participation.

Because it was difficult to recruit a racially diverse sample from Xavier University, recruitment also took place through two additional strategies. A faculty member at a more diverse private university in a large city agreed to distribute a link to the study to students in her courses. They were given the opportunity to participate voluntarily and without compensation of any sort (i.e., no extra credit or research credit), and the faculty member was not informed of their participation.

Last, to recruit the needed number of POC, a snowball recruitment method via a professional networking site was used. Participants who were recruited through this method earned a \$10 amazon gift card for participation. A graduate assistant's personal connections on the networking site that were from two large public universities who potentially met criteria for this study were provided with a description of the study and a link to the survey. Those connections were encouraged to forward the link to any individuals whom they felt might be interested in participating. Based on these connections, the networking site provided recommended connections who were contacted and provided with the study description and

survey. Therefore, although this strategy began by recruiting students at two universities, it likely involved recruiting from other universities. Appendix G provides the message used for this recruitment.

For participants recruited through the universities, participants saw the informed consent first (see Appendix H). After participants provided consent, they read a description (see Appendix B) explaining the content of the study (i.e., listening to an audio recording and completing a survey), including a warning that the audio contained explicit language and description of events that some may find disturbing. Those who chose to continue the study clicked on the link and listened to the 4-minute and 28-second audio (see Appendix A); the transcript of the dialogue in the audio ran on the screen as the audio played (see Appendix C). They could not progress to subsequent pages until the audio played completely. The next page began the 47-question survey (see Appendix E). After completing the survey, participants completed a brief demographic and general information questionnaire (see Appendix D). Finally, participants were debriefed with a form disclosing that the audio recording was a real interrogation that involved a known false confession, as well as informing them that the purpose of the study was to investigate if the perception and judgments of a false confession differed by the participants' and suspect's race (see Appendix I).

The procedure for participants who were recruited via the snowball method proceeded through the study materials in a slightly different manner. In order to avoid additional recruitment of White participants, individuals who responded to the study were first offered the consent form (see Appendix H) and then were presented with the demographic form (see Appendix D). If they identified as people of color, they were allowed to proceed to the audio recording, to the survey, and debriefing information, which then led to an option to enter their

name and email address, so that they could receive the gift card they had been promised. If they indicated that their racial identity was White or preferred to not respond (among the other demographic questions), they were directed to a page that stated that they did not qualify for the study and thanked them for their willingness to participate.

Results

Before running any of the primary analyses, we ran Pearson correlations on the primary dependent variables (i.e., level of voluntariness, degree of coercion, and level of guilt) to determine the degree to which these ratings might overlap. Although the correlations were all significant ($p = .001$), the values of those intercorrelations ranged from $r = .35$ to $.46$. This is well below the suggested criterion of $r = .70$ as an indication of highly redundant items. Therefore, our ratings appear to reflect separate judgments made by the participants.

The overarching aim of the study was to evaluate participants' perceptions of features of the audio interrogation that resulted in a confession by rating the voluntariness and coercion of the confession and rating the degree to which they felt the suspect, who ultimately confessed, was guilty. In these ratings, we compared (1) the perceptions of White participants versus POC (race of participants), (2) the perceptions of participants who rated the White versus Black suspect (race of suspect), and (3) the possible interaction of the race of the participant and race of the suspect on ratings of coercion, voluntariness, and guilt.

Voluntariness of Confession. We used a 2 (race of suspect) x 2 (race of participant) ANOVA to examine the main effects of race of suspect and race of participant and the interaction of race of participant and race of suspect in participants' ratings of the voluntariness of the confession. Specifically, participants rated, "Do you think the suspect's confession was voluntary (i.e., without any detective prompting)?" on a 1-5 Likert scale, 1 indicating "Not at all

Voluntary” and 5 indicating “Completely Voluntary.” The means, standard deviations, and ANOVA results are presented in Tables 2, 3, and 4. There was not a significant interaction for this rating, $F(1, 157) = .03, p = .85$ and no significant main effects for race of the participant $F(1, 157) = .81, p = .37$ or race of the suspect $F(1, 157) = .03, p = .87$.

Level of Guilt. We used a 2 (race of suspect) x 2 (race of participant) ANOVA to examine the main effects of race of suspect and race of participant and the interaction of race of participant and race of suspect in participants’ ratings of the level of guilt of the suspect. Specifically, participants rated, “Imagine you are a juror listening to this recording. What would your verdict be?” on a 1-5 Likert scale, 1 indicating “Definitely Not Guilty” and 5 indicating “Definitely Guilty.” The means, standard deviations, and ANOVA results are presented in Tables 2, 3, and 4. There was not a significant interaction for this rating, $F(1, 157) = .23, p = .60$ and no significant main effects for race of the participant $F(1, 157) = .53, p = .50$ and race of the suspect $F(1, 157) = 2.97, p = .09$.

Degree of Coercion. We used a 2 (race of suspect) x 2 (race of participant) ANOVA to examine the main effects of race of suspect and race of participant and the interaction of race of participant and race of suspect in participants’ ratings of the degree of coercion. Specifically, participants rated, “Was the suspect’s confession coerced?” on a 1-5 Likert scale, 1 indicating “Definitely Not Coerced” and 5 indicating “Definitely Coerced.” The means, standard deviations, and ANOVA results for the main effects and interactions are presented in Tables 2, 3, and 4. There was a significant interaction for this rating, $F(1, 157) = 4.49, p = .036$; however, there were not significant main effects for race of the participant $F(1, 157) = .79, p = .38$ or race of the suspect $F(1, 157) = .61, p = .44$. The significant interaction is presented in Figure 1. Table 2 presents means and standard deviations for all cells. The results of simple effects analyses

indicated that coercion ratings of the White suspect differed significantly by participant race ($p = .049$). Specifically, the White participants rated the White suspect's interrogation as more coerced than did POC ($t = 1.90, p = .049$). Further, ratings of degree of coercion by POC reflected a trend toward a statistically significant difference for suspect race ($t = -1.82, p = .062$), with POC rating the Black suspect's interrogation as more coercive than the White suspect's interrogation. Also, as represented in Figure 1, the POC rated the Black suspect's interrogation as more coercive than the White participants, although this did not reach statistical significance. It is important to note that the mean values of ratings made in all conditions and by both White participants and POC were greater than 4, reflecting a "Likely to be coercive" rating. This mean indicates that the findings, whether significant or not, were in the context of ratings that the nature of the interaction was judged as "likely to be coercive."

Exploratory Analyses. We conducted exploratory analyses to further understand participants' reactions to and judgments about the detective-suspect interaction they heard. These data primarily are descriptive in nature and are used to provide context for the results of the other analyses. First, we examined the percentage of participants who rated the detectives in the video as engaging in coercive techniques, expecting that the majority (more than 50%) would rate the coercion item with a 4 (mostly coercive) or 5 (clearly coercive) irrespective of the suspect's race. In fact, 82.3% of participants (130/158) rated the detectives' tactics as mostly or clearly coercive. Examining the frequency of the ratings by race of participant resulted in similar proportions; of those whose ratings were 4 or 5, 45.6% were White and 36.7% were POC.

Second, we examined the ratings of specific questioning tactics that are commonly used by police during questioning, expecting that the majority (more than 50%) of participants would give ratings of 4 (somewhat coercive) or 5 (extremely coercive) on these items (see Appendix E;

Qs 9-15). Results indicated that 74.1% of participants rated a detective presenting a suspect with false evidence of guilt as extremely coercive (e.g., providing false information regarding forensic evidence or eyewitness evidence) and 88% of participants rated threatening or using physical harm during questioning as extremely coercive. However, only 50.6% of participants rated detectives bluffing about evidence (e.g., pretending to have evidence, but not explicitly stating that this evidence confirms the suspect's guilt), 38.6% as rejecting the suspect's denials (e.g., repeated accusations, cutting off denials of guilt), and 46.2% as promising leniency (e.g., suggesting/implying suspect will receive a lenient charge and/or sentence for confession) as extremely coercive. Last, only 7.6% of participants rated the presentation of true evidence of guilt (e.g., providing accurate information regarding forensic evidence) and 12.7% of participants rated building rapport with the suspect (e.g., being nice/friendly to the suspect, finding commonalities with the suspect, treating the suspect with respect) as extremely coercive tactics.

The final exploratory analysis involved examining the level to which participants agree with the use of coercive techniques to obtain a confession. I expected the majority (more than 50%) of participants to strongly disagree or somewhat disagree (rating of 1 or 2) with using coercive techniques to obtain a confession. In fact, 72.8% of participants strongly or somewhat disagreed with using coercive tactics (e.g., provided a rating of 1 or 2).

Discussion

In the United States, concerns regarding equity and justice in the criminal justice system are under a microscope, and this has come to the forefront since the death of George Floyd in May 2020. The aim of this study was to examine whether race of the participant/potential juror and/or the race of the suspect impacts the participants' perceptions of an interrogation that

resulted in a confession. To the best of our knowledge, no studies involving an interrogation and confession evidence have examined both the potential jurors' and suspect's race and the role that plays when people are asked to make judgments about the degree of coercion used in the interrogation, the voluntariness of a confession, and the likelihood of the suspect's guilt.

Research from a related area, mock jury studies, has found conflicting effects of mock juror and defendant race. Thus, to fill the gap in the literature, we examined the role of race regarding college students' perceptions of coercion in an interrogation and voluntariness of the confession, as well as judgments about the suspect's level of guilt. We hypothesized that POC would reach different conclusions and judgments about these features than their White counterparts. We also hypothesized that race of the suspect would result in different ratings in these areas.

Contrary to expectation, there were no differences in ratings regarding voluntariness of confession, or ratings of the suspect's guilt when comparing race of participant or race of the suspect nor were there interactions between race of participant and race of the suspect in any of these ratings. However, whereas there were no main effect findings for race of the suspect and race of the participant, there was a statistically significant interaction between race of participant and race of the suspect in ratings of the degree of coercion used in the interrogation. The results of simple effects analyses indicated that coercion ratings of the White suspect differed significantly by participant race ($p = .049$). Specifically, the White participants rated the White suspect's interrogation as more coerced compared to POC who rated the White suspect's interrogation as less coercive. These ratings may reflect a greater degree of sensitivity to their in-group members' experiences when judging an interaction with police. Previous research further supports these findings. Specifically, research has found that White mock jurors' judgments are

harsher towards out-group (non-White) defendants compared to in-group (White) defendants (e.g., DeSantis & Kayson, 1997; Hymes et al., 1993; Klein & Creech, 1982).

Although two of the three variables did not result in statistically significant differences, features of the ratings themselves are notable. The mean ratings for voluntariness of the confession ranged from 1.94 ($SD = 1.05$) to 2.12, indicating a “not at all” or “not likely” voluntary rating. Further analysis of this rating finds that the majority of respondents (82.3%), regardless of condition, rated the confession as “not at all” or “not likely” voluntary. This pattern of response option choice continued in the ratings of degree of coercion, for which the mean ratings ranged from 4.07 ($SD = 0.95$) to 4.44, thus reflecting the “likely to be coerced” option. Examining the specific options chosen, the majority (88.6%) of respondents indicated that the confession was “likely to be coerced” or “definitely coerced.” Together, these responses indicate that the majority of participants judged the detectives’ questioning to be coercive and the confession to have not been voluntary. Similarly, when asked to rate the suspect’s likelihood of being guilty on scale of 1-5, the mean rating ranged from 2.82 ($SD = 1.04$) to 3.25 which reflects the “unlikely to be guilty” or “equally likely to be guilty and not guilty” option. However, in contrast to coercion and voluntariness where the majority of the sample responded in the same direction, there was much less agreement on the ratings of guilt. A very small portion of the sample chose the most definitive ratings of “definitely guilty” (9.5%) and “definitely not guilty” (3.8%). Whereas the mean rating ($M = 3.08$) would seem to indicate that the rating of “equally likely to be guilty and not guilty” was typical, only 21.5% chose that as their option. Instead, 65% of the sample was fairly equally divided, 34.2% and 31.0%, in choosing “unlikely to be guilty” and “likely to be guilty,” respectively.

To further understand these ratings, we analyzed participants' responses to a subsequent question that required them to make a determination of guilty versus not guilty, as opposed to a rating of likelihood of guilt. Using separate chi-square tests of independence for POC and White participants, the guilty versus not guilty judgments did not differ by suspect race for White participants, $\chi^2(1, n = 83) = .008$, n.s. (see Table 5). In fact, the proportion of guilty versus not guilty judgments are nearly equally divided in each race condition. In contrast, there was a trend toward statistical significance in the proportion of POC who reached a judgment of guilty vs. not guilty by suspect race, $\chi^2(1, n = 75) = 3.197$, $p = .060$ (see Table 5). Specifically, of the POC, 57.1% (24/42) judged the White suspect as guilty compared to 42.9% (18/42) who felt the White suspect was not guilty. When reaching a judgment about the Black suspect, about one-third of POC (36.4%; 12/33) judged him as guilty compared to two-thirds (63.6%; 21/33) who felt he was not guilty. We did not examine the factors that contributed to participants' decision to render a guilty or not guilty verdict, so we do not have specific information to interpret what appears to be an assumption of not guilty by POC when they are considering the fate of a suspect of color, and a higher likelihood to determine that a White suspect is guilty. Similar to previous findings, these results may indicate a greater degree of sensitivity to their in-group members' experience, in that the POC were more likely to judge the White suspect as guilty and the Black suspect as not guilty. Our findings appear to stand in contrast to previous studies, such as Anwar and colleagues (2012) who examined the impact of jury composition on trial outcomes using a data set of felony trials in Florida between 2000 and 2010. They found that all White jury pools convicted Black defendants significantly more often (by 16% points) than White defendants; however, this gap in conviction rates was entirely eliminated when the jury pool includes at least one Black member.

In conclusion, we did not find differences in ratings on voluntariness of the confession and judgments about the level of guilt by race of the suspect or participant. However, there were differences in the ratings made by POC when considering the (lower) level of coercion exerted on the White suspect relative to the Black suspect, and in the judgement of guilty versus not guilty by POC. Further, although most participants rated the detectives' tactics as coercive, approximately half still judged the suspect as guilty, which is consistent with previous research in demonstrating the power of confession evidence (Shifton, 2019).

Limitations. There are several factors to consider when interpreting the findings of the current study. First, in order to produce a recording that varied only by the race of the suspect, we manipulated the voice to make it sound less stereotypically White. Pilot testing indicated that the majority of individuals did not know the suspect's voice was altered and did not question the race of the suspect; however, we do not know whether or to what extent that manipulation influenced people's perceptions. This study also utilized a college sample, so it reflects the judgments made by a relatively educated portion of American society. Further, a large portion of the participants were students at a private, religiously affiliated institution that has social justice at the core of its educational philosophy; this exposure, particularly given that the data was collected during a period of significant attention to issues of race in the justice system, may have resulted in findings that do not reflect a broader segment of society. Additionally, there are some demographic differences in the samples recruited through different sources; whereas 20% of the POC were students at a private university, 80% came from the other institutions, the vast majority of which were large, public institutions. We do not know to what extent the nature of the educational institution might have influenced participants' views of the scenario.

It is also worth noting when data collection occurred for this study: fall to winter 2020-21. In addition to a polarized election, this country was reacting to the death of George Floyd, a Black man who died while being arrested from a “cardiopulmonary arrest complicating law enforcement subdual, restraint, and neck compression,” according to Floyd’s death certificate. Following this event, protests brought national attention to racial injustices in the criminal justice system. Thus, the results of this study may have been impacted by that increased awareness.

Future direction. Future studies should continue to seek to determine the role of race on individuals’ perceptions of an interrogation that results in a confession. Gathering data from a non-college sample would extend the generalizability of this study’s findings. Extending the questions to address features of the participants’ decision-making and to provide a forced choice regarding the perception of coercion and voluntariness might be considered and is justified. This forced choice question may further help explain contributing factors to participants’ determination of guilt. Additionally, the findings regarding the judgment of guilty versus not guilty suggests that POC respond differently when making a determination about White versus Black suspects, with significantly more participants rendering a determination of guilty when the suspect was White than when the suspect was Black, even in the face of the same objective information about the case. Future research should consider what mechanisms contribute to this difference in the ultimate judgment. For example, do these differences in judgment reflect greater suspicion about the treatment of Black versus White suspects, such that statements by a White suspect, who may have received better treatment by the police, are seen as indicative of guilt, whereas a Black suspect is assumed to be not guilty after less fair treatment? To help answer this question, future studies might include open-ended questions to elicit the participants’ decision-making and their weighing of the information provided.

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Table 1*Demographics of the Initial Sample and Final Sample*

Characteristics	Initial Sample		Final Sample ^a	
	<i>n</i>	%	<i>n</i>	%
Race				
White/European American	114	52.5	83	52.5
Black/ African American	64	29.5	49	31.0
Latinx	14	6.5	6	3.8
Multiracial	13	6.0	9	5.7
Asian	7	3.2	7	4.4
Hawaiian or Pacific Islander	2	0.9	1	0.6
Native American	1	0.5	1	0.6
Other	2	0.9	2	1.3
Gender Identity				
Female	170	78.3	129	81.6
Male	42	19.4	24	15.2
Gender Non-Conforming	4	1.8	4	2.5
Transgender Female to Male	1	0.5	1	0.6
Current Level of Education				
High School	6	2.8	3	1.9
Undergraduate	141	65	105	66.4
Some College	50	23.0	36	22.8
Bachelor's Degree	15	6.9	10	6.3
Associates Degree	3	1.4	2	1.3
Master's Degree	2	0.9	2	1.3

Political Affiliation ^b				
Democrat	107	49.3	75	47.5
Republican	18	8.3	11	7.0
Independent	52	24.0	42	26.6
Other	11	5.1	9	5.7
Prefer not to Respond	26	12.0	21	13.3
Income Class ^c				
Very Low	2	0.9	2	1.3
Low	35	16.1	25	15.8
Middle	98	45.2	70	44.3
Upper Middle	72	33.2	55	34.8
Upper	7	3.2	6	3.8
Family in Law Enforcement ^d				
Yes	58	26.7	42	26.6
No	156	71.9	116	73.4

Note. $N = 217$. Participants were on average 20.12 years old ($SD = 2.69$). $n = 158$ Participants were on average 20.17 years old ($SD = 2.91$).

^a The participants who correctly identified the suspect's race in the manipulation check ($n = 158$).

^{b, c, d} Reflects a total of 214 participants who completed this item

Table 2

Means, Standard Deviations, and Two-Way ANOVA Interaction Effect for Race of Participant (PR) and Race of Suspect (SR) for Study Ratings

Variable	Race of Participant	Race of Suspect				ANOVA			
		White		Black		<i>Effect</i>	<i>F</i>	<i>p</i>	η^2
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
LoV	White	1.94	1.05	1.94	.88	PR x SR	0.03	.853	.000
	POC	2.12	.99	2.06	1.27				
LoG	White	3.25	1.16	3.04	1.08	PR x SR	0.28	.599	.002
	POC	3.21	1.07	2.82	1.04				
DoC	White	4.44	.62	4.27	.70	PR x SR	4.49	.036*	.028
	POC	4.07	.95	4.42	.66				

Note. $N = 158$. ANOVA = analysis of variance; LoV = Level of Voluntariness; LoG = Level of Guilt; DoC = Degree of Coercion; POC = participants of color; PR = Race of Participant; SR = Race of Suspect

* $p < .05$

Table 3*Means, Standard Deviations, and ANOVA Main Effect for Race of Suspect for Study Ratings*

Variable	Race of Suspect				<i>F</i>	<i>p</i>	η^2
	White		Black				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
LoV	1.94	0.94	2.09	1.12	0.03	.870	.000
LoG	3.12	1.11	3.04	1.07	2.97	.087	.019
DoC	4.34	0.67	4.23	0.85	0.61	.437	.004

Note. *N* = 158. ANOVA = Analysis of Variance; LoV = Level of Voluntariness; LoG = Level of Guilt; DoC = Degree of Coercion

Table 4*Means, Standard Deviations, and ANOVA Main Effect for Race of Participant for Study Ratings*

Variable	Race of Participant				<i>F</i>	<i>p</i>	η^2
	White		POC				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
LoV	2.04	1.01	1.99	1.05	.81	.371	.005
LoG	3.23	1.11	2.95	1.06	.53	.467	.003
DoC	4.23	.84	4.33	.68	.79	.375	.028

Note. *N* = 158. ANOVA = Analysis of Variance; POC = Participants of Color; LoV = Level of Voluntariness; LoG = Level of Guilt; DoC = Degree of Coercion

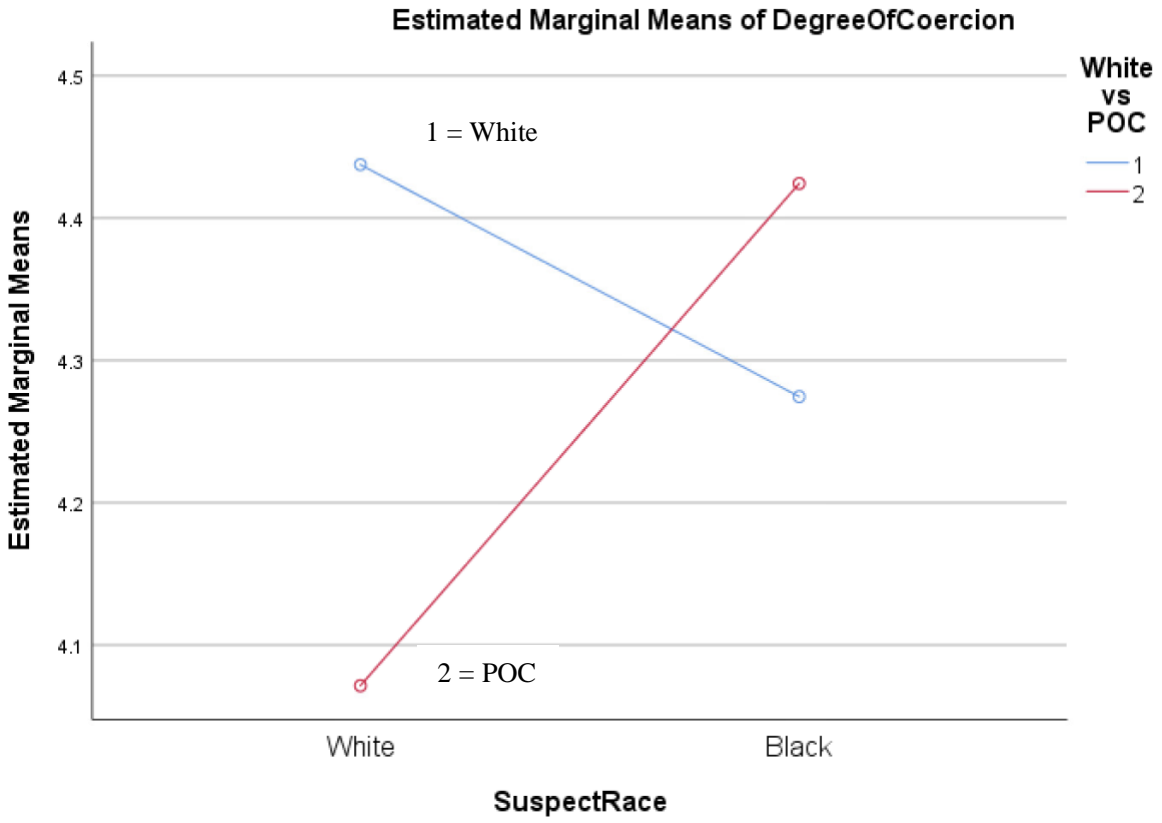
Table 5*Frequencies and Chi-Square Results*

Judgments by Participants of Color				
		Guilty	Not Guilty	$\chi^2(2)$
		<i>n (%)</i>	<i>n (%)</i>	
Suspect Race	White	24 (57.1)	18 (42.9)	3.197 *
	Black	12 (36.4)	21 (63.6)	
Judgments by White Participants				
Suspect Race	White	16 (50.0)	16 (50.0)	.008
	Black	26 (50.6)	25 (49.4)	

*Fisher's exact test = .060

Figure 1

Estimated Marginal Means of Degree of Coercion



$p = .05$

Appendix A

Links to Audio Recording

The content of the audio recordings contains proprietary material. To obtain access to the recordings please contact the first author at Abramsm2@xavier.edu.

Appendix B

Study Descriptions

Description 1

Imagine that you are a juror. In that role, a court asks you to consider evidence that is presented to you to make judgments about a defendant's guilt. In a moment, you will listen to an audio recording from a real case, in which two detectives are questioning a suspect. Although the clip you will listen to is four and half minutes long, it was compiled from a single interrogation session that lasted for a period of 7 hours. The suspect is a 25-year-old White male named Matt, who is being questioned about the murder of his aunt and uncle. While listening to the audio recording, a transcript of the recording will appear on your screen, to ensure you can understand what is being said. Following the recording, you will be asked several questions about the case, including making a determination about whether or not Matt committed the crime he is accused of. You will also be asked to answer general questions about the strategies the detective used during questioning.

***Note: Explicit language and description of events that some may find disturbing is present in this recording. Please exit the study now, or at any time during the study, if you no longer wish to participate.**

Description 2

Imagine that you are a juror. In that role, a court asks you to consider evidence that is presented to you to make judgments about a defendant's guilt. In a moment, you will listen to an audio recording from a real case, in which two detectives are questioning a suspect. Although the clip you will listen to is four and a half minutes long, it was compiled from a single interrogation session that lasted for a period of 7 hours. The suspect is a 25-year-old Black male named Matt,

who is being questioned about the murder of his aunt and uncle. While listening to the audio recording, a transcript of the recording will appear on your screen, to ensure you can understand what is being said. Following the recording, you will be asked several questions about the case, including making a determination about whether Matt committed the crime he is accused of. You will also be asked to answer general questions about the strategies the detective used during questioning.

***Note: Explicit language and description of events that some may find disturbing is present in this recording. Please exit the study now, or at any time during the study, if you no longer wish to participate.**

Appendix C

Transcript of Audio Recording

D1 = Detective 1

D2 = Detective 2

S = Suspect

D1: This is considered a non-custodial interview. You're free to leave at any time.

S: Well, I'm here to cooperate with you gentlemen.

D1: Okay, and that's just for the record, so you don't think that you're trapped here. And if at any time, you go, "I'm not happy and I don't want to be here," you can leave.

S: Okay.

D1: What kind of person do you think goes into someone's house and shoots somebody and takes their life?

S: A sicko. A sick person. That's what I think. But I don't know. I mean, it's -- We're like you.

We want to know the who, what, when, why and how and who.

[Time passes]

S: I didn't have anything to do with this.

D1: You did.

S: I did not.

D1: You did.

S: I did not.

D1: You did.

S: No, I didn't.

D1: I'm sorry, you did.

D1 and D2: Come on, Matt. - Come on, Matt. You're thinking too hard. You've got your mind spinning, going, "I'm trying to get out of this. What do I say to these guys?" We've had so many people sitting in that chair, okay, that think that they're smarter than us, and you're not.

S: No.

D1: Okay

S: No, I'm dumb as a brick.

D1 and D2: No, you're not dumb as a brick, okay? You made a mistake. You fucked up. You did. You fucked up, and now you've got to pay for it.

D1: Do you consider yourself a man? Then stand up. No, stand up and be a man, okay? Own up. Own up for what you've done. Do you understand? You shake your head at me and you look at me. I just want to make sure you understand.

S: I'm trying to.

D1: Okay, then speak up and tell us. If you don't admit to me exactly what you've done, I'm gonna walk out that door, and I'm gonna do my living best to hang your ass from the highest tree. You're done. I'll go after the death penalty. I'll push, I'll push and I'll push until I get everything I need to make sure you go down hard for this. There is no second chance 'cause I'll look at you and go piss on you.

7 hours of questioning continue...

D1: Let's take this in baby steps, all right? Let's try to make this as simple as possible. Where did you get the shotgun from?

S: The only one I have is locked up in my dad's gun safe, and I don't even know where the keys are for it.

D1: Man, I'm trying to help you piece this together 'cause we already know the truth, man. Baby steps. Start to finish. The truth is you got a gun. Right or wrong?

S: Right.

D1: And you took that gun back to your Uncle Wayne and Aunt Sharmon's house, right? Right or wrong? Come on, man.

S: Right.

D1: And you walked upstairs in their house after hours. - Right or wrong?

S: Right.

D1: And you walked in with that shotgun and you saw they were laying in bed. Right or wrong?

S: Right, I guess. Right.

D1 and D2: Right. And you fired a shot - at your Uncle Wayne.

S: Right.

D1: What happened next? I want you to tell me.

S: (inaudible)... Don't remember.

D1: You don't remember? But you got pretty close to Aunt Sharmon, didn't you?

S: Right, I guess. I don't know, um -

D1: All that rage running through you. -

S: Right.

D1: And you fired a shot to shut her up. Is that right? I need you to say it out loud, buddy.

S: Yes, sir.

D1: It's all right, buddy. You started to say it. Come on, let it go.

S: Then I pulled that trigger and shot her. And then she screamed more. And then I just—

D1: You just what, buddy?

S: Put the gun to her face and blew it away. –

D1: Okay.

S: And then as I headed out, I just stuck it to him and blew him away.

D1: Now tell me how you feel.

S: Like shit.

D1: You're breathing a little easier than you were before.

S: Yeah. Doesn't make anything...

D1: No, it doesn't make it better.

S: No.

D1: It ain't gonna bring 'em back.

S: No. I fucked up.

Appendix D

Demographic Form and General Information Questionnaire

1. Age
 - a. Write in: _____
2. Assigned sex at birth:
 - a. Male
 - b. Female
 - c. Prefer not to respond
3. Current gender identity:
 - a. Male
 - b. Female
 - c. Transgender male to female
 - d. Transgender female to male
 - e. Gender non-conforming
 - f. Write in: _____
 - g. Prefer not to respond
4. What is your race/ethnicity?
 - a. American Indian
 - b. Asian
 - c. Black/African American
 - d. Hispanic American or Latino/a
 - e. Native Hawaiian or Pacific Islander
 - f. White/European American

- g. Multiracial: _____
 - h. Write in: _____
 - i. Prefer not to respond
5. Current Year in College
- a. 1st year
 - b. 2nd year
 - c. 3rd year
 - d. 4th year
 - e. Graduate School
6. Major Area of Study
- a. Write in: _____
7. Do you have any immediate or extended family members who are employed in law enforcement?
- a. Yes
 - i. If yes, in what area? _____
 - b. No
8. Do you want to work in criminal justice/law enforcement?
- a. Yes
 - b. No
 - c. If yes, in what capacity?
9. What political affiliation best describes you?
- a. Democratic
 - b. Republican

- c. Independent
 - d. Other: _____
 - e. Prefer not to respond
10. How would you describe the income level of your family of origin?
- a. Very low
 - b. Low
 - c. Middle
 - d. Upper-Middle
 - e. Upper

Snowball Sample Demographic Form and General Information Questionnaire

1. Age
 - a. Write in: _____
2. Assigned sex at birth:
 - a. Male
 - b. Female
 - c. Prefer not to respond
3. Current gender identity:
 - a. Male
 - b. Female
 - c. Transgender male to female
 - d. Transgender female to male
 - e. Gender non-conforming

- f. Write in: _____
 - g. Prefer not to respond
4. Highest Level of Education
- a. HS
 - b. GED
 - c. Some College
 - d. Associate's Degree
 - e. Bachelor's Degree
 - f. Master's Degree
 - g. Doctorate Degree
 - h. Other: _____
5. Major Area of Study
- a. Write in: _____
6. What is your race/ethnicity?
- a. American Indian
 - b. Asian
 - c. Black/African American
 - d. Hispanic American or Latino/a
 - e. Native Hawaiian or Pacific Islander
 - f. White/European American
 - g. Multiracial: _____
 - h. Write in: _____
 - i. Prefer not to respond

Appendix E

Survey

Below are items that were originally developed for this study. However, the content of the full survey contains proprietary material. To obtain access to the full survey please contact the first author at Abramsm2@xavier.edu.

Section I:

Considering the questioning you heard in the audio recording, rate the following items:

The way the detectives are talking with the suspect is standard procedure. (About detective behavior)

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

The detectives would treat me this way if I were brought into questioning.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

The detectives would treat *anyone* this way if they were brought into questioning.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

Do you think the suspect’s confession was voluntary (i.e., without any detective prompting)? (Voluntariness; Ho1, 2, 3)

1	2	3	4	5
Not at all Voluntary	Not likely Voluntary	Neither Voluntary nor Involuntary	Probably Voluntary	Completely Voluntary

How confident are you that the suspect committed the crime he confessed to?

1	2	3	4	5
Not at all Confident	Somewhat Confident	Neither Confident nor Unconfident	Mostly Confident	Very Confident

Imagine you are a juror listening to this recording. What would your verdict be? (About Guilt; Ho1, 2, 3)

1	2	3	4	5
Definitely Not Guilty	Unlikely to be Guilty	Equally likely to be Guilty and Not Guilty	Likely to be Guilty	Definitely Guilty

As a juror, after

listening to this recording, you would have to make a decision. What would your verdict?

1	5
Not Guilty	Guilty

*Some strategies that detectives use when questioning people have been called **coercive**. Something is considered coercive if it tends to remove an individual's perception of their freedom to make a meaningful choice. In other words, the less a suspect feels she/he has choice in how to respond to what is being asked (i.e., confess) the more coercive the method is.*

Was the suspect's confession coerced? (About Coercion; Ho1, 2, 3)

1	2	3	4	5
Definitely Not Coerced	Unlikely to be Coerced	Equally likely to be Coerced or not Coerced	Likely to be Coerced	Definitely Coerced

Do you think the detectives' tactics were coercive? (Coerciveness; expectation 1)

1	2	3	4	5
Not at all Coercive	Somewhat Coercive	Unable to Determine	Mostly Coercive	Clearly Coercive

Section IV:

General Questions:

Have you watched any of the following productions?

Making a Murderer (Netflix)

1	2	3
No	Some of it	All of it

When They See Us (Netflix)

1	2	3
No	Some of it	All of it

Confession Tapes (Netflix)

1	2	3
No	Some of it	All of it

For the following statements please rate your agreement with the following statements.

Detectives should use coercive techniques to obtain a confession. (About coerciveness; expectation 3)

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

Coercive techniques are an effective way to obtain a true confession.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

A white suspect is more likely to falsely confess compared to a black suspect.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

A black suspect is more likely to falsely confess compared to a white suspect.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

A black detective is more likely to use coercive techniques with a white suspect to obtain a confession.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

A black detective is more likely to use coercive techniques with a black suspect to obtain a confession.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

A white detective is more likely to use coercive techniques with a white suspect to obtain a confession.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

A white detective is more likely to use coercive techniques with a black suspect to obtain a confession.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

Thinking back to the audio recording:

In the description you read, what was suspect’s race described as? (Write Response)

What was the name of the suspect in the audio recording?

- a) I don’t know
- b) John
- c) Matt
- d) I never heard a name

How many detectives questioned the suspect in the audio recording?

- a) 1
- b) 2
- c) 3

How long was the questioning?

- a) 2 hours
- b) 5 hours
- c) 7 hours

You listened to an audio interrogation earlier, do you think it was real interrogation?

1	2
Yes – I believe it was an actual case	No – I believe it was made up

If no, what didn't seem real? Briefly describe below:

The events of summer 2020, sparked by George Floyd's death, have made me think differently about police behavior.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

Whether or not your opinion has changed, explain your thoughts about police behavior. Briefly describe below:

Have you ever had an official encounter with the police, such as being pulled over for a traffic violation (e.g., speeding)?

1	2
Yes	No

If yes, how safe did you feel?

1	2	3	4	5
Not safe	A Little Safe	Neutral	Somewhat Safe	Completely Safe

In this experiment, half of you heard an audio recording, where the voice was manipulated to be consistent with the race presented in the study description. Before this question, did you have any suspicion regarding either the voice or the race described.

1	2	3
Not at all Suspicious	A Little Suspicious	Very Suspicious

Appendix F

Institutional Review Board Approval

August 26, 2020

Marissa Abrams

Dear Ms. Abrams:

The IRB has completed the review of your protocol #20-009, *The Role of Race in Perceptions of Interrogation and Confession* using expedited review procedures. We appreciate your thorough treatment of the issues raised and your timely response. Your study is approved in the Expedited category under Federal Regulation 45CFR46.

Approval expires August 25, 2021. A progress report, available on our [website](#), is due by that date. If the IRB has not received a progress report from you before MIDNIGHT on the study's expiration date, we will AUTOMATICALLY set your study's status to "Closed". **No further data collection is allowed at that point, and if you wish to re-commence data collection, you will be required to submit a new application, along with all relevant materials, to our office.**

Although we will endeavor to send you a reminder, it is **your responsibility** as the researcher to ensure that your progress report and any request for an extension of data collection is submitted to our office before your approval expires.

If you wish to modify your study, including any changes to the approved Informed Consent form, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

If you have any questions, please contact the IRB office at 745-2870. We wish you success with your research!

Sincerely,

Tammy L. Sonnentag, PhD.
Chair, Institutional Review Board
Xavier University

Institutional Review Board Approval

November 12, 2020

Marissa Abrams

Re: Protocol #20-009, *The Role of Race in Perceptions of Interrogation and Confession*

Dear Ms. Abrams:

The IRB has reviewed the request to modify your study, referenced above. We understand that you have added qualifying questions and changed a demographics question. We are able to continue to approve your study based on the information you provided. Therefore, your above-referenced study, as modified, continues to be approved in the Expedited category under Federal Guidelines 45CFR46. Your approval expires on August **25, 2021** and a Progress Report is due by that date. The form can be found online at www.xavier.edu/irb/forms

Please note that if you wish to further modify your study, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

We truly appreciate your efforts and attention to compliance within the spirit of human subject's protection. We wish you great success with your research.

Sincerely,

Tammy L. Sonnentag, PhD.
Chair, Institutional Review Board
Xavier University

TLS/sb

enclosure: stamped informed consent

Appendix G

Snowball Recruitment Message

The recruitment message stated, *“We are conducting a study regarding police questioning that will take approximately 30 minutes of your time if you qualify to participate. We are looking for people who meet very specific characteristics. If you decide to see if you qualify for the study, follow the link below. You will answer a few questions about yourself (such as age and education). If you do not qualify, you will be thanked for considering our study, and you will answer no further questions. If you qualify, you will be taken to the informed consent document for the full study which will provide more information about the nature of the study and what you will be asked to do. Upon completion of the study, you will receive a \$10 gift card. At any point in this process (during the qualification phase or during the study itself), you will have the option to stop your participation without any negative repercussions.”*

If you know of any other undergraduates who might be interested in participating, please send them the entire message and link I sent you! If you choose to do so, I just ask you don't share any information with them about the study.

Appendix H

Informed Consent Form

My name is Marissa M. Abrams and I'm a graduate student in Psychology in the School of Psychology. I'm offering you the opportunity to volunteer to participate in a project conducted through Xavier University that will serve as my doctoral dissertation. The purpose of this study is to investigate perceptions of questioning strategies used by the police. Participants in this study will be asked to listen to a brief audio recording of detectives questioning a suspect, completing a brief survey regarding your judgment about questioning techniques and providing basic demographic information. The study should take approximately 30 minutes for you to complete. There are minimal foreseeable risks or discomforts related to your participation in this study. However, in the audio that you will hear, there is explicit language and a description of events that some may find disturbing. If at any time you feel uncomfortable or wish to leave the study, you may do so without penalty. There are no direct benefits to you for your participation in this study.

Nature and Purpose of the Project

The purpose of this study is to investigate perceptions of questioning strategies used by the police. This study will be conducted online, via Qualtrics. It will involve listening to a brief audio recording of detectives talking to a suspect, completing a survey regarding your judgments about the questioning techniques used in the audiotape and providing basic demographic information. The total time to complete this study is approximately 30 minutes.

Why You Were Invited to Take Part

You were invited to participate because you are currently enrollment in an academic program.

Study Requirements

Participants must be 18 years of age or older and fluent in English.

Anticipate Discomforts/Risks

There are minimal foreseeable risks or discomforts related to your participation in this study. However, in audio that you will hear, there is explicit language and a description of events that some may find disturbing. If at any time you feel uncomfortable or wish to leave the study, you may do so without penalty. Refusal to participate in this study will have no effect on any future services to which you may be entitled from Xavier University. You are under no obligation to participate in this study, and you are free to withdraw at any time without penalty.

Anonymity

Any information you provide will remain completely anonymous; your name will not be recorded on any materials or linked to your responses. Responses will be reported in a summary and no individual answer will be reported in the dissertation document. The highest security setting in Qualtrics will be used, ensuring no collection of private information, including IP addresses and geo-location. In addition, any demographic information provided will not be used for identification purposes and will only be reported on an aggregated basis.

Compensation

Refusal to participate in this study will have NO EFFECT ON ANY FUTURE SERVICES you may be entitled to from the University. You are FREE TO WITHDRAW FROM THE STUDY AT ANY TIME WITHOUT PENALTY.

If you have any questions at any time during the study, you may contact the researcher, Marissa Abrams at Abramsm2@xavier.edu or the research supervisor, Dr. Kathleen Hart at hartk@xavier.edu. Questions about your rights as a research participant should be directed to Xavier University's Institutional Review Board at 513-745-2870, or irb@xavier.edu.

You may print a copy of this form, or contact Marissa Abrams at Abramsm2@xavier.edu to request a copy be sent to you.

I have been given information about this research study and its risks and benefits and have had the opportunity to contact the researcher with any questions, and to have those questions answered to my satisfaction. By completing the elements of the study as previously described to me, I understand that I am giving my informed consent to participate in this research study.

THE DATE APPROVAL STAMP ON THIS CONSENT FORM INDICATES THAT THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY XAVIER UNIVERSITY'S INSTITUTIONAL REVIEW BOARD.

Appendix I

Debriefing Form

Thank you for your participation in this study. Please keep the purpose of this study confidential and do not disclose any information about this study to other potential participants.

The audio recording you listened to was a real interrogation that involved a known false confession. The purpose of this study was to investigate if the perception and judgments of a false confession differed by the participant's and suspect's race.

Your responses to the questionnaires are, and will remain, anonymous.

If you have questions or concerns about this study, or if you wish to inquire about the results, you may contact the principal investigator, Marissa Abrams, at abramsm2@xavier.edu, or her dissertation chair, Dr. Kathleen Hart, at hartk@xavier.edu.

Please keep the purpose of this study confidential and do not disclose any information about this study to other potential participants. We are still in the process of collecting data and the details we've provided here could alter our findings.

Summary

Title. The Role of Race in Perceptions of Interrogation and Confession

Problem. There are no doubts that many factors contribute to racial inequalities in the criminal justice system, and it is clear that people of color, particularly Black people, are overrepresented in this system. There is increasing attention to those who have been wrongfully convicted, including those who have falsely confessed. Despite the psychological pressures and coercive techniques involved in interrogations, confessions—even those made by innocent suspects—are routinely trusted and considered as conclusive evidence of guilt. Although the exact number of false confessions is unknown, it is known that 12% of people falsely confess to crimes they did not commit, as a result of both dispositional and situational factors (The National Registry of Exonerations, 2020). To understand systemic racism and racial bias that is apparent in the criminal justice system, there are many areas that would benefit from systematic research. This includes examining what occurs in the social interaction of interrogation by police and interpretation of the statements made by suspects during those interrogations.

Method. Participants were recruited via a participant pool, a private university, and a snowball method. After participants provided consent, they read a description explaining the content of the study (i.e., listening to an audio recording and completing a survey), including a warning that the audio contained explicit language and description of events that some may find disturbing. They listened to a 4-minute and 28-second audio with the transcript of the dialogue in the audio on the screen as the audio played. Then they answered a 47-question survey. After completing the survey, participants completed a brief demographic and general information questionnaire. Finally, participants were debriefed with a form disclosing that the audio recording was a real interrogation that involved a known false confession, as well as informing them that the purpose

of the study was to investigate if the perception and judgments of a false confession differed by the participants' and suspect's race. The primary statistical analyses was a 2 (race of suspect) x 2 (race of participant) ANOVA to examine the main effects of race of suspect and race of participant and the interaction of race of participant and race of suspect in participants' ratings of the degree of coercion, ratings of voluntariness, and likelihood of guilt.

Findings. Regarding ratings of the voluntariness of the confession, there was not a significant interaction for this rating, $F(1, 157) = .03, p = .85$ and no significant main effects for race of the participant $F(1, 157) = .81, p = .37$ or race of the suspect $F(1, 157) = .03, p = .87$. Regarding the likelihood of guilt, there was not a significant interaction for this rating, $F(1, 157) = .23, p = .60$ and no significant main effects for race of the participant $F(1, 157) = .53, p = .50$ and race of the suspect $F(1, 157) = 2.97, p = .09$. However, considering the degree of coercion, there was a significant interaction for this rating, $F(1, 157) = 4.49, p = .036$; yet, there were not significant main effects for race of the participant $F(1, 157) = .79, p = .38$ or race of the suspect $F(1, 157) = .61, p = .44$. The significant interaction is presented in Figure 1. Table 2 presents means and standard deviations for all cells. The results of simple effects analyses indicated that coercion ratings of the White suspect differed significantly by participant race ($p = .049$).

Implications. The significant findings suggest that participants may have a greater degree of sensitivity to their in-group members' experiences when judging an interaction with police. Future studies should continue to seek to determine the role of race on individuals' perceptions of an interrogation that results in a confession. Gathering more data from a non-college sample is warranted to verify if this study's findings are generalizable. Future research should consider what mechanisms are impacting or contributing to the participants' decision making and judgments.