Intellectual Disability Affects Case Judgment Differently Depending on Juvenile Race



Connie M. Tang¹ · Narina Nunez² · Victoria Estrada-Reynolds¹

Published online: 5 December 2019 © Society for Police and Criminal Psychology 2019

Abstract

This research investigated how juvenile race and ctual disability affect case judgment involving recanted confession. We recruited 151 participants to serve as mock jurors using a 2 (juvenile race: Black, White) × 2 (intellectual disability: disabled, nondisabled) between-subjects design. We found that participants rendered more guilty verdicts, had higher confidence in the defendants' guilt, and estimated a higher probability of crime commission when the juvenile defendants were White instead of Black. Consistent with the "bend-over-backwards" effect and the expectancy-violation theory, participants judged the nondisabled White juvenile defendants leniently. In addition, intellectual disability was a mitigating factor, but mostly for White juvenile defendants. Black juvenile defendants with intellectual disability were often judged more harshly than Black juvenile defendants without intellectual disability. Finally, juvenile race and intellectual disability interacted to affect the evaluation of confession evidence and case outcome. Overall, the current research extended our understanding of public perception of Black and White juvenile defendants with intellectual disability.

Keywords Juvenile race · Intellectual disability · Recanted confession · Juror decision-making

In the past few decades, several high-profile cases involving Black juvenile delinquents have grasped media attention. For example, in 1996 in Spencer, Ohio, 14-year-old Johnnie Jordan killed his foster mother, Mrs. Jeannette Johnson with a hatchet in an unexplainable fit of rage (Toth 2002). Fast forward to 2012 in Clayton, New Jersey, 15-year-old Justin Robinson, along with his older brother Dante Robinson, killed their 12-year-old neighbor Autumn Pasquale when their bike parts exchange went awry ("Autumn Pasquale Murder," 2013; Romalino 2013. More recently in 2018, Corey Williams was set free after being wrongfully convicted and sentenced to death for robbing and murdering a pizza delivery man in Shreveport, Louisiana in 1998 when he was 16 years old (Berman 2018). In all three cases, there were concerns over the juvenile delinquents' intellectual capacity. In addition, due to the lack of forensic evidence, all three cases hinged heavily on the juveniles' confession to the crime. Despite real-life cases like these, we know little about how the public evaluates

Connie M. Tang connie.tang@stockton.edu

- ¹ Stockton University, Galloway, USA
- ² University of Wyoming, Laramie, USA

confessions tendered by intellectually disabled juvenile defendants, much less juvenile defendants of color.

What is known from previous research (e.g., Goff et al. 2014; Najdowski and Bottoms 2015; Nunez et al. 2007; Redlich et al. 2008; Tang et al. 2009; Tang and Turner 2013) is that juvenile characteristics such as age, gender, race, history of child maltreatment, and intellectual disability influence case judgments. For instance, younger juvenile offenders and juveniles with a history of maltreatment have been found to be judged more leniently (Nunez et al. 2007). Younger juveniles were less likely than older juveniles to be recommended to the adult court, and juveniles with a history of maltreatment received less harsh verdicts than those without maltreatment history. Sometimes juvenile characteristics influence verdict decisions through mock jurors' evaluation of confession evidence (e.g., Najdowski et al. 2009). In the Najdowski et al. (2009) study, mock jurors fully discounted a coerced confession from an intellectually disabled juvenile, but not from a nondisabled juvenile. Specifically, verdicts did not differ between intellectually disabled juveniles who confessed under coercion and those who never confessed. For the nondisabled juveniles, however, mock jurors delivered more guilty verdicts to juveniles who confessed under coercion than those who never confessed. The Najdowski et al. (2009) study thus suggests that mock jurors examine intellectually disabled

juvenile defendants under a more sympathetic light, believing perhaps that an intellectually disabled juvenile defendant is more easily coerced into making a false confession.

Indeed, due to the elevated false confession and false guilty plea rates among juvenile defendants (Malloy et al. 2014; Redlich and Shteynberg 2016), Black suspects (Redlich et al. 2010), and defendants with intellectual disability (Trowbridge 2003), intellectually disabled Black juvenile defendants may face multiple threats, making the problem of false confession especially relevant for this group of defendants.

Confession Evidence

Confession evidence exerts powerful influence on jurors, whether it is true, false, voluntary, or coerced (Kassin and Neumann 1997; Kassin and Sukel 1997; Kassin and Wrightsman 1980, 1981). For the most part, the effect of confession evidence is not significantly diminished even when the confession is later recanted. Redlich et al. (2008) found mock jurors were twice as likely to believe that a juvenile suspect committed a crime when the suspect had confessed and later recanted, compared to when the suspect never confessed. This puts juveniles who falsely confess at a severe disadvantage. Unfortunately, since intellectually disabled Black juvenile defendants are at risk for falsely confessing and/or pleading guilty, recanted confessions are a realistic possibility for these defendants, as in the case of Corey Williams.

As expected, mock jurors do respond to varied circumstances surrounding the recanted confession. For example, mock jurors discounted a confession induced after a threat of punishment (Kassin and Wrightsman 1981). In addition to police interrogation tactics such as threat of punishment, offer of leniency, and the false-evidence ploy (Forrest et al. 2012; Kassin and Wrightsman 1981; Leo and Liu 2009; Woody and Forrest 2009), defendant characteristics also influence the evaluation of recanted confessions. Per Henkel (2008), mock jurors selectively discounted disputed confessions so that a recanted confession blamed on an underlying medical condition was discounted more than one blamed on a psychological disorder, or one blamed on the general stress induced by the interrogation. To expand on the literature discussed thus far, the current research examines two juvenile defendant characteristics that could influence juror judgment of a case involving recanted confession: juvenile race and intellectual disability.

Perceptions of Black Juvenile Defendants

Past research mostly showed either that people were biased against Black defendants (Demuth and Steffensmeier 2004; Feiler and Sheley 1999; Maxwell et al. 2003; Rattan et al.

2012: Stevenson and Bottoms 2009) or that they treat Black and White defendants the same (Cauffman et al. 2007; Franklin and Fearn 2008; Mann 1984; Stalans and Henry 1994). For example, using data from the 1990s, Demuth and Steffensmeier (2004) compared differences in sentencing of offenders in state felony courts. They found Black and Hispanic defendants sentenced similarly, but Black and Hispanic defendants received harsher sentences than White defendants did. Along the same vein, based on telephone interviews of over 200 residents from New Orleans in 1995, Feiler and Sheley (1999) revealed that all things equal, respondents preferred to transfer a juvenile to the adult court when the juvenile was Black. This revelation was consistent with Rattan et al. (2012), who showed that just bringing to mind a Black (vs. White) juvenile offender led participants to view juveniles in general as significantly more similar to adults and to express more support for severe sentencing. Rattan et al.'s (2012) research demonstrated the concept of adultification, where Black boys and girls are perceived as less innocent and more adult-like than White children, thereby receiving more severe punishments for similar infractions (Goff et al. 2014; Tang 2018; Wilson 2017).

Sometimes, this bias against Black defendants is not straightforward. For instance, Maxwell et al. (2003) analyzed a large sample of cases adjudicated in the 1990s from the 75 most populous counties in the USA. As it turned out, defendant race differentially predicted the adjudication decisions in four violent offenses. Even though minority defendants (mostly Blacks and Hispanics) were treated more punitively when charged with assault, robbery, or murder, they were treated more leniently when charged with sexual assault. The researchers attributed the unexpected leniency for minority defendants to the devaluation of female minority victims compared to White victims, as sexual assault was mostly an intraracial crime. This nuanced bias against Black defendants was also evident in Stevenson and Bottoms (2009), who found male (but not female) mock jurors demonstrate the predicted bias against Black juvenile defendants.

Other researchers (e.g., Cauffman et al. 2007; Franklin and Fearn 2008; Mann 1984; Stalans and Henry 1994) revealed few differences between the treatment/perception of Black and White defendants. Cauffman et al. (2007) sampled 1355 juvenile offenders adjudicated of serious criminal offenses in Phoenix and Philadelphia and found juvenile race unrelated to dispositional outcome. Likewise, defendant race was not a predictor of sentencing severity in a nationally representative sample of convicted homicide defendants (Franklin and Fearn 2008). When studying race and sentencing of female felony offenders in Atlanta in 1981, Mann (1984) found superior court judges uninfluenced by the defendant's race when making sentencing recommendations. Finally, in an experiment, Stalans and Henry (1994) found offender race fail to predict

participants' transfer preference when the race of the offender was explicitly identified as either "Black" or "White."

Overall then, even though the research results are mixed, there is the tendency toward more severe judgment of Black compared to White defendants. This may apply in the evaluation of confession evidence as well. Indeed, in three experiments, Ratcliff et al. (2010) found participants rated the confessions tendered by Chinese-American and African-American suspects more voluntary than Caucasian suspects. Also, mock jurors in Pickel et al.' (2013) two experiments judged a recanted confession to be more voluntary, authentic, and incriminating when the defendant was a minority (Arab American in experiment 1 and gay man in experiment 2) rather than a majority group member (White American in experiment 1 and heterosexual man in experiment 2). Black juvenile defendants, being members of a minority, may be judged more harshly in the case of recanted confessions as well. In other words, confessions (even if later recanted) from Black juvenile defendants may be regarded as more voluntary, authentic, and incriminating than those made by White juvenile defendants.

Perceptions of Juvenile Defendants with Intellectual Disability

Similar to perceptions of Black juvenile defendants, perceptions of intellectual disabled juvenile defendants also notably vary. As Trowbridge (2003) pointed out, interrogator trickery can lead to false confessions even among high-functioning individuals, let alone adolescents, and especially adolescents with intellectual disability. Indeed, the public viewed intellectually disabled child witnesses as less able to resist suggestive questioning (Brown and Lewis 2013). Mock jurors also rated the testimony of children with intellectual disability as less credible, although this was largely due to the lack of detail in the children's testimony compared to testimony from typically developing children (Henry et al. 2011). The public recognizes that intellectual disability is a risk factor for falsely confessing (Henkel 2008).

On the other hand, as crime victims, intellectually disabled children have been found to be more credible, more honest, and less likely to make false allegations than child victims of average intelligence (Bottoms et al. 2003). In Bottoms et al. (2003), mock jurors additionally turned this higher victim credibility into more guilty verdicts and higher confidence in the defendant's guilt.

Aside from perhaps a general sympathy for child victims and displeasure toward child perpetrators, this unevenness in perception may also reflect mixed feelings toward intellectually disabled children. Research seems to bear this out. Even as mock jurors rated the testimony of children (Henry et al. 2011) and others (Stobbs and Kebbell 2003) with intellectual disability as less credible, they also judged witnesses with learning disabilities to be fundamentally honest (Stobbs and Kebbell 2003). Still, mock jurors were reluctant to rely on the evidence presented by witnesses with learning disabilities. The public thus view children with intellectual disability as innocent but gullible.

Overall, however, people are sympathetic toward juvenile defendants with intellectual disability. For example, when the juvenile defendant was thought to be guilty but perceived to be intellectually disabled, mock jurors were less likely to vote guilty and less likely to think that the juvenile should be tried as an adult (Najdowski and Bottoms 2012). Additionally, when examining juror perceptions of a juvenile defendant across the different crime types of shoplifting, drug offense, self-defense murder, and aggravated murder, Najdowski et al. (2009) found intellectual disability to be a mitigating factor. Mock jurors in the Najdowski et al. (2009) study were more lenient toward the disabled juvenile defendant, including completely discounting a coerced confession.

Whereas Black juvenile defendants were often treated more harshly than White juvenile defendants (Feiler and Sheley 1999; Rattan et al. 2012; Stevenson and Bottoms 2009), juveniles with intellectual disability were usually given more leniency than juveniles without such a disability (Najdowski and Bottoms 2012; Najdowski et al. 2009). However, extant experimental studies on how intellectual disability affected the evaluation of confession evidence have all portrayed the intellectually disabled juvenile defendant as White (e.g., Najdowski and Bottoms 2012, 2015; Najdowski et al. 2009). We therefore intended to bridge this gap by including both Black and White juvenile defendants in our study.

The following are our research hypotheses and/or research questions: First, we predicted that mock jurors would judge Black juvenile defendants more harshly than White juvenile defendants, consistent with Pickel et al. (2013). Second, we predicted that mock jurors would judge intellectually disabled juveniles more leniently than nondisabled juvenile defendants, in accord with Najdowski and Bottoms (2012) and Najdowski et al. (2009). Third, we were interested in any interactions between juvenile race and intellectual disability. Would mock jurors judge intellectually disabled Black juveniles more harshly than intellectually disabled White juveniles, due to racial prejudice? Would mock jurors instead judge intellectually disabled Black juveniles more leniently, due to the better match to a possible stereotype that Blacks are more likely to be disabled? Poulson (1990) hinted at this second possibility in that when defendants were presented as Black, they were acquitted of Not Guilty by Reason of Insanity more often than when the defendants were presented as White. Finally, we wonder if differences in case judgment would be associated with mock jurors' evaluations of the recanted confession.

Method

Participants

We recruited 151 undergraduate students, ranged in age from 18 to 51 years (M=20.11, SD=3.29), from a public liberal arts university in the East coast of the USA using a research participant pool administered by the psychology program. Students received partial course credits or extra credits for their participation. There were 38 males and 113 females: 68.2% were Caucasian, 9.3% were Black, 7.9% were Asian, 6% were Hispanic, and 8.6% chose the "Other" category. All participants were US citizens and 18 years or older, so that they were jury eligible. The research was approved by our university's Institutional Review Board.

Materials and Procedure

After signing informed consent forms and confirming that they were US citizens and 18 years or older, participants were asked to serve as mock jurors. They individually read and made judgments on one of four versions of an approximately 2000-word trial summary, following the 2 (juvenile race: Black, White) \times 2 (intellectual disability: disabled, nondisabled) between-subjects factorial design. All four versions of the trial summary depicted a first-degree murder case involving a 16-year-old juvenile defendant tried as an adult.

Juvenile race was manipulated by the first name of the defendant as either "Jamal" (Black juvenile) or "Jacob" (White juvenile) and the label used to describe him in the introductory paragraph of the trial summary as either "African American" or "Caucasian." Intellectual disability was manipulated through a short description of the defendant in the same paragraph, modeled after Najdowski and Bottoms (2012, 2015). For the intellectually disabled defendant, the description states that a school psychologist testified that the juvenile defendant had a lower than average IQ and was developmentally delayed, functioning in the mild range of intellectual disability. In addition, the defendant had problems with time management, would forget to do homework if not reminded, had difficulty expressing himself, and lacked social skills. Moreover, despite receiving special education services, the defendant still performed poorly in school, did not have the reasoning abilities of a normal 16-year-old, but functioned at the level of a typically developing 12-year-old. For the nondisabled defendant, the description states that a school psychologist testified that the juvenile defendant was of average intelligence with no major psychological problems. In addition, the defendant had no problem with time management, would remember to do homework without being reminded, had no difficulty expressing himself, and had adequate social skills. Finally, the defendant had no need for special education services, performed well in school, had the reasoning abilities of a normal 16-year-old, and functioned at the level of a typically developing 16-year-old.

The trial summary itself was loosely based on the Taylor (2004) case and included both the prosecution and defense perspectives. The prosecution charged that the juvenile defendant, together with a younger companion, robbed and shot the victim to death during an attempt to steal the victim's bicycle valued at about \$115. Prosecution evidence included three eyewitnesses who somewhat confidently identified the juvenile defendant as the shooter, the younger companion's statement that the defendant was the shooter, and the defendant's own confession. The defense, on the other hand, pointed out that there was no physical evidence linking the defendant to the crime. The defense also challenged much of the eyewitness testimony on grounds of inconsistency. Most of all, the defense described how when the defendant was interrogated for more than two hours, he was given no food and was offered no breaks. Neither was his mother or an attorney present. Therefore, the juvenile defendant's confession was coerced, and the juvenile later recanted the confession. The defense argued that the coercive misconduct of the two interrogating officers rendered the confession involuntary and false. Given that extralegal factors are only or more influential when the strength of the case evidence is ambivalent (Franklin 2010; Meeker et al. 1992), we wrote the trial summaries with an eye toward keeping the evidence balanced between the prosecution and the defense.

Immediately after reading the case summary, participants completed a two-page questionnaire. They rendered a verdict and rated their confidence on the verdict on a 0- to 10-point Likert-type scale, with 0 representing "Not at all confident" and 10 for "Completely confident." Participants then estimated the percent likelihood that the defendant committed the crime and proposed a standard of proof for a guilty verdict. The two questions that followed inquired about the police interrogation process. Participants rated whether the defendant was treated fairly ("Yes" or "No") during the interrogation and the amount of pressure police officers exerted on the defendant to confess on a 0- to 10-point scale, with 0 representing "No pressure" and 10 representing "A great deal of pressure." Finally, prior to answering a few demographic questions, participants answered three questions about the recanted confession. They rated on a 0- to 10-point scale how voluntary the defendant's confession was, with 0 for "Not at all voluntary" and 10 for "Completely voluntary." Participants answered whether the defendant's confession was false, and they rated how incriminating the defendant's confession (though recanted) was on a 0- to 10-point scale, with 0 for "Not at all incriminating" and 10 for "Extremely incriminating." As each participant turned in his/her questionnaire, he/she was given a debriefing form that thanked the participant and explained the specific hypotheses of the research.

Results

Verdict

Using logistic regression, we entered both the main effects of juvenile race and intellectual disability, and the interaction between juvenile race and intellectual disability into the equation. There was a significant main effect of juvenile race. Participants found the White defendant (51%) guilty more often than the Black defendant (31%), Wald = 6.29, p = 0.01, OR = 0.42, Cox and Snell $R^2 = 0.07$.

However, the above main effect was qualified by a significant two-way interaction (see Fig. 1) between juvenile race and intellectual disability: Whereas verdicts for disabled Black and White defendants were similar, participants found nondisabled White defendant (61%) guilty more often than nondisabled Black defendant (24%), Wald = 4.50, p = 0.03, OR = 0.23, Cox and Snell $R^2 = 0.07$.

Confidence in the Defendant's Guilt

Before analyzing the study data, we created a more interpretable verdict confidence variable to represent participants' confidence in the defendant's guilt by combining participants'

Fig. 1 Significant two-way interaction between juvenile race and intellectual disability on verdict

verdict with their confidence in the verdict (e.g., Cooper and Neuhaus 2000; Tang and Turner 2013; Wiley and Bottoms 2009). The resultant variable could range from 1 (not guilty, completely confident) to 22 (guilty, completely confident).

We conducted a 2 (juvenile race: Black, White) × 2 (intellectual disability: disabled, nondisabled) between-subjects ANOVA on this variable and revealed a pattern of findings similar to those on verdict. There was a significant main effect of juvenile race. Participants had higher confidence in the White (M = 11.67, SD = 7.53) than the Black (M = 8.83, SD = 7.25) defendant's guilt, F(1, 147) = 5.80, p = 0.02, $\eta_p^2 = 0.04$.

However, the above main effect was qualified by a significant interaction (see Fig. 2) between juvenile race and intellectual disability, F(1, 147) = 5.88, p = 0.02, $\eta_p^2 = 0.04$. Simple effects analyses revealed that whereas ratings for disabled Black and White defendants were similar, participants had higher confidence in the nondisabled White defendant's guilt (M = 13.08, SD = 7.49) than in the nondisabled Black defendant's guilt (M = 7.34, SD = 6.68), F(1, 147) = 11.60, p = 0.001, $\eta_p^2 = 0.07$.

Probability of Crime Commission

A 2 (juvenile race: Black, White) \times 2 (intellectual disability: disabled, nondisabled) between-subjects ANOVA did not find any main effects on the probability of crime commission ratings. However, juvenile race and intellectual disability



Fig. 2 Significant two-way interaction between juvenile race and intellectual disability on confidence in the defendant's guilt ratings



interacted (Fig. 3) to influence participant perception on the probability that the defendant committed the charged crime, F(1, 148) = 4.65, p = 0.03, $\eta_p^2 = 0.04$. Simple effects analyses revealed that even though participants rated disabled Black and White juvenile defendants similarly, they estimated a higher probability of crime commission for the nondisabled White defendant (M = 63.42, SD = 27.22) than for the nondisabled Black defendant (M = 47.45, SD = 25.25), F(1, 148) = 7.32, p = 0.008, $\eta_p^2 = 0.05$.

Voluntariness of the Confession

We conducted the same 2 (juvenile race: Black, White) × 2 (intellectual disability: disabled, nondisabled) betweensubjects ANOVA on perceived voluntariness of the confession. There was a main effect of intellectual disability. Participants rated the confession made by the nondisabled defendant (M=4.07, SD=2.36) more voluntary than that made by the disabled defendant (M=3.22, SD=2.26), F(1,148)=5.02, p=0.03, η_p^2 =0.03.

There was also a significant interaction (Fig. 4) between juvenile race and intellectual disability, F(1, 148) = 4.91, p = 0.03, $\eta_p^2 = 0.03$. Even though participants did not rate the voluntariness of the confession any differently between disabled and nondisabled Black juvenile defendants, they rated the confession made by the nondisabled White defendant (M = 4.47, SD = 2.20) more voluntary than that made by the disabled White defendant (M = 2.82, SD = 2.27), F(1, 148) = 10.06, p = 0.002, $\eta_p^2 = 0.06$.

Perception of the Confession Being False

We entered both the main effects of juvenile race and intellectual disability and the interactive effect between the two into a logistic regression equation. There was a significant interactive effect (see Fig. 5) between juvenile race and intellectual disability on participants' opinion regarding whether the confession was false or not. Simple effects analyses uncovered a cross-over effect. For the Black juvenile defendant, more participants believed that the nondisabled defendant (79%) made a false confession than the disabled defendant (57%); for the White defendant, however, more participants believed that the disabled defendant (67%) falsely confessed than the nondisabled defendant (43%), Wald = 8.22, p = 0.004, OR = 7.5, Cox and Snell $R^2 = 0.07$. There were no other significant main effects or interactions.

Mediational Analyses

To understand how juvenile race and intellectual disability may influence verdict through participant perception of the recanted confession, we conducted mediational analyses using the Preacher and Hayes bootstrapping method (Preacher and Hayes 2004; Preacher et al. 2007). Specifically, we used conditional process modeling Fig. 3 Significant two-way interaction between juvenile race and intellectual disability on probability of crime commission ratings



(corresponding to Model 7 in Hayes 2013) with the PROCESS macro. We tested to see if juvenile race moderated the relationships among intellectual disability, the perceived voluntariness of the confession, and verdict.

As Fig. 6 illustrates, the index for this moderated mediation was significant as the 95% confidence interval did not include 0, $\beta = 0.59$ (0.34), 95% CI [0.06, 1.39]. This means that the indirect effect of intellectual disability was moderated by



Fig. 4 Significant two-way interaction between juvenile race and intellectual disability on voluntariness of the confession ratings

Fig. 5 Significant two-way interaction between juvenile race and intellectual disability on perception of the confession as false



juvenile race. When juvenile race was at a higher level (i.e., White juvenile per our coding), the conditional indirect effect of intellectual disability on verdict via perceived voluntariness of the confession was significant in a positive direction, $\beta =$ 0.59 (0.26), 95% CI [0.19, 1.19]. In contrast, when juvenile race was at a low level (i.e., Black juvenile per our coding), the effect was not significant, $\beta = 0.00$ (0.20), 95% CI [-0.44, 0.38]. Moreover, the direct effect of intellectual disability on verdict was not significant, $\beta = -0.19$ (0.36), p = 0.59, 95% CI [-0.90, 0.52]. Therefore, this model was a full mediation model. Overall then, juvenile race was a moderator for the



Indirect effect / White juvenile: .59 (.26), 95% CI [.19, 1.19]

Fig. 6 Moderated mediating effect of the perceived voluntariness of the confession

positive pathway from intellectual disability through perceived voluntariness of the confession to verdict. For White juveniles, the lack of intellectual disability was linked to higher perceived voluntariness of the confession, which predicted more guilty verdicts.

Discussion

We set out to answer four research questions. We wanted to know if mock jurors would judge Black juvenile defendants more harshly than White juvenile defendants; we predicted that mock jurors would judge intellectually disabled juveniles more leniently than nondisabled juvenile defendants; we were curious to find out if juvenile race and intellectual disability interact to affect decision-making; we wondered whether differences in case judgment would be associated with mock jurors' evaluation of the recanted confession.

Indeed, juvenile race influenced verdict and confidence in the defendant's guilt, but in a direction that was opposite to our prediction. Participants found White juveniles guilty more often than Black juveniles, and participants had higher confidence in the White than in the Black defendants' guilt. This finding was not the norm, but it was revealed in the occasional study or two. For example, after analyzing 68,188 juvenile court referrals, Peck and Jennings (2016) found White juveniles adjudicated at a higher rate than Black juveniles. Also, mock jurors in Pica et al. (2017) delivered more guilty verdicts to White than to Black defendants. It would seem that juvenile race impacts case judgment differently depending on other factors, as past research has generated null findings (e.g., Stalans and Henry 1994), found Black (e.g., Rattan et al. 2012; Stevenson and Bottoms 2009) or White (Peck and Jennings 2016; Pica et al. 2017) juvenile defendants judged more harshly. It is difficult to pinpoint the exact combinations of factors that led juvenile race to impact case judgment in such divergent ways.

One explanation for our counterintuitive finding on juvenile race can be gleaned from the modern racism literature. Modern racism theory proposes that modern racists are more likely to discriminate when a non-race justification exists, or the appropriate response is not apparent (McConahay 1983). For example, Black and White job applicants are hired at equal rates when they are both highly qualified. However, when they both have equally low qualifications, the Black applicant is less likely to be hired, because the low qualifications now serve as a non-race justification not to hire the Black applicant (Brief et al. 2000; McConahay 1983). In our study, the trial summary was constructed to maintain balance of evidence between the prosecution and the defense. Presumably, mock jurors in our study did not have a non-race related justification to convict or acquit; that is, the evidence did not lean strongly toward guilt or acquittal. Thus, the nondisabled Black defendant was not discriminated against. Further, mock jurors seem to have overcorrected their bias toward the nondisabled Black defendant compared to the nondisabled White defendant, known as a "bend-over-backward" effect. Previous research (e.g., Olson and Fazio 2004; Pica et al. 2017) has found that individuals will overcorrect for bias and act in a more positive manner toward Black individuals in an effort to appear non-prejudiced.

Another explanation can be found when considering that the main effect of juvenile race on verdict and confidence in the defendant's guilt was restricted to nondisabled juvenile defendants. In the process of operationalizing intellectual disability, we also described the "normally developing" aspects of juvenile defendants without intellectual disability. It was likely that these "normal" qualities such as managing time well, completing homework voluntarily, having adequate social skills, and performing well in school have combined to depict a nondisabled juvenile who seemed well adjusted. Participants might have thus judged the nondisabled White juvenile harshly but the nondisabled Black juvenile leniently in accord with the expectancy-violation theory (Jussim et al. 1987). This theory states that when stereotype-inconsistent information is presented about a target, the target will be evaluated more extremely in the direction of the violated expectancy. For example, Jackson et al. (1993) found that stereotype-inconsistent target (i.e., Black persons with superior qualifications, or White persons with inferior qualifications) was judged more extremely in the direction of the inconsistency. Specifically, strong Black persons were evaluated more favorably than strong White persons while weak White persons were evaluated less favorably than weak Black persons.

In our study, nondisabled, well-adjusted Black juvenile defendants may have been stereotype-inconsistent (e.g., going against the stereotype of a problematic Black delinquent with low IQ) in a positive manner, but nondisabled, well-adjusted White juvenile defendants may have been stereotypeinconsistent (i.e., going against the stereotype of a lawabiding White juvenile) in a negative manner. This would cohere with the finding that nondisabled White juvenile defendants were estimated to have a higher probability of crime commission than nondisabled Black juvenile defendants, even though disabled Black and White juvenile defendants were rated similarly. Even though disabled White juvenile defendants in our study also violated the law-abiding White juvenile stereotype, their intellectual disability may have mitigated participants' propensity toward harsh judgment.

In fact, intellectual disability was a mitigating factor in our study, in that participants rated the confession made by the nondisabled juvenile defendant more voluntary than that made by the disabled juvenile defendant. This confirmed past research (Najdowski and Bottoms 2012; Najdowski et al. 2009) and demonstrated the public's understanding that juveniles with intellectual disability are less able to resist suggestions and are more at risk for falsely confessing (Brown and Lewis 2013; Henkel 2008).

Further, the current research extended past studies by showing that this leniency toward intellectually disabled juveniles may be restricted to White juvenile defendants. It should be noted here that Pica et al. (2017) did not find such an interaction, although our research methods are quite different. Pica et al. (2017) studied juveniles with developmental delay (which includes intellectual disability AND physical disabilities) and they used a case of aggravated assault (whereas ours was first-degree murder). In our study, participants did not differentially rate the voluntariness of the confession between disabled and nondisabled Black defendants, but they rated the confession made by the nondisabled White defendant more voluntary than that made by the disabled White defendant. Across all dependent variables where significant findings emerged, Black juvenile defendants with intellectual disability were not once judged more leniently than Black juvenile defendants without intellectual disability. Black juvenile defendants with intellectual disability were actually treated less sympathetically than Black juvenile defendants without intellectual disability as their coerced confession was judged less likely to be false. Conversely, coerced confessions tendered by White juvenile defendants with intellectual disability were deemed more likely to be false than that given by nondisabled

White juvenile defendants. In short, our research showed that disabled Black juveniles are at risk of being treated in a biased way, lending support to the consideration of juvenile race when examining public perception of juvenile defendants with intellectual disability.

Finally, juvenile race and intellectual disability interacted to influence verdict decisions through participant evaluation of how voluntary the confession was. Our moderated mediational analyses revealed that for White juveniles only, the more voluntary the confession, the more likely the guilty verdict. Thus, from the prosecutor standpoint, our study demonstrated that it was not enough just to obtain a confession from suspects; it is important that the confession be voluntary as well.

There were a number of study limitations. Our sample size was moderate and there were more female than male participants. However, supporting several of our research hypotheses even using a moderate sample spoke to the strengths of our findings. To ensure a more equal number of male and female study participants, future research endeavors should employ a diverse set of recruitment strategies, going beyond the psychology participant pool to the community, and using traditional as well as online data collection methods.

Overall, we began to fill a void in extant experimental research about how intellectual disability affects the evaluation of confession evidence by including both Black and White juvenile defendants with intellectual disability, extending the work of Najdowski and her collaborators (e.g., Najdowski and Bottoms 2012, 2015; Najdowski et al. 2009). Sadly, even though intellectually disabled Black juvenile defendants are at high risk for falsely confessing (e.g., Malloy et al. 2014; Trowbridge 2003), our research suggests that the public may not recognize this vulnerability.

Therefore, despite their intellectual disability, Black juvenile defendants the likes of Johnnie Jordan, Justin Robinson, and Corey Williams are unlikely to be judged leniently because of their disabilities. If an intellectually disabled Black juvenile defendant made a false confession and later recanted, the confession could still hold sway. Future research should build upon the current research to confirm that intellectual disability affects case judgment differently depending on juvenile race, and to increase public understanding of the impact of intellectual disability on coerced confession for juvenile defendants of all demographic persuasions.

Compliance with Ethical Standards

All procedures performed in this study were in accordance with the ethical standards of the IRB of Stockton University and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Finally, informed consent was obtained from all participants included in the study.

Conflict of interest The authors declare that they have no conflict of interest.

References

- Autumn Pasquale murder: Judge sentences Justin Robinson to 17 years. (2013). NJ.Com. Retrieved from http://www.nj.com/gloucester.county/ index.ssf/2013/09/autumn_pasquale_judge_sentences_her_killer_ justin robinson to 17 years.html. Accessed 12 Sept 2013.
- Berman, M. (2018). He was 16 when Louisiana charged him with murder. The Washington Post. Retrieved from https://www.washingtonpost. com/news/post-nation/wp/2018/05/22/he-was-16-when-louisianacharged-him-with-murder-two-decades-later-hes-free/?utm_term=. 65bd82d4b468. Accessed 22 May 2018.
- Bottoms BL, Nysse-Carris KL, Harris T, Tyda K (2003) Jurors' perceptions of adolescent sexual assault victims who have intellectual disabilities. Law Hum Behav 27(2):205–227. https://doi.org/10.1023/ A:1022551314668
- Brief AP, Dietz J, Cohen RR, Pugh SD, Vaslow JB (2000) Just doing business: modern racism and obedience to authority as explanations for employment discrimination. Organ Behav Hum Decis Process 81(1):72–97. https://doi.org/10.1006/obhd.1999.2867
- Brown DA, Lewis CN (2013) Competence is in the eye of the beholder: perceptions of intellectually disabled child witnesses. Int J Disabil Dev Educ 60(1):3–17. https://doi.org/10.1080/1034912X.2013. 757132
- Cauffman E, Piquero AR, Kimonis E, Steinberg L, Chassin L, Fagan J (2007) Legal, individual, and environmental predictors of court disposition in a sample of serious adolescent offenders. Law Hum Behav 31(6):519–535. https://doi.org/10.1007/s10979-006-9076-2
- Cooper J, Neuhaus IM (2000) The 'hired gun' effect: assessing the effect of pay, frequency of testifying, and credentials on the perception of expert testimony. Law Hum Behav 24(2):149–171. https://doi.org/ 10.1023/A:1005476618435
- Demuth S, Steffensmeier D (2004) Ethnicity effects on sentence outcomes in large urban courts: comparisons among white, black, and Hispanic defendants. Soc Sci Q 85(4):994–1011. https://doi.org/10. 1111/j.0038-4941.2004.00255.x
- Feiler SM, Sheley JF (1999) Legal and racial elements of public willingness to transfer juvenile offenders to adult court. J Crim Just 27(1): 55–64. https://doi.org/10.1016/S0047-2352(98)00036-1
- Franklin CA, Fearn NE (2008) Gender, race, and formal court decisionmaking outcomes: chivalry/paternalism, conflict theory or gender conflict? J Crim Just 36(3):279–290. https://doi.org/10.1016/j. jcrimjus.2008.04.009
- Franklin TW (2010) The intersection of defendants' race, gender, and age in prosecutorialdecision making. J Crim Just 38(2):185–192. https:// doi.org/10.1016/j.jcrimjus.2009.12.001
- Forrest KD, Woody W, Brady SE, Batterman KC, Stastny BJ, Bruns JA (2012) False-evidence ploys and interrogations: mock jurors' perceptions of false-evidence ploy type, deception, coercion, and justification. Behav Sci Law 30(3):342–364. https://doi.org/10.1002/bsl. 1999
- Goff PA, Jackson MC, Di Leone BAL, Culotta CM, DiTomasso NA (2014) The essence of innocence: consequences of dehumanizing Black children. J Pers Soc Psychol 106(4):526–545 https://doi.org/ 10.1037/a0035663
- Hayes AF (2013) Introduction to mediation, moderation, and conditional process analysis: a regression based approach. Guilford Press, New York

- Henkel LA (2008) Jurors' reactions to recanted confessions: do the defendant's personal and dispositional characteristics play a role? *Psychology.* Crim Law Forum 14(6):565–578
- Henry LL, Ridley AA, Perry JJ, Crane LL (2011) Perceived credibility and eyewitness testimony of children with intellectual disabilities. J Intellect Disabil Res 55(4):385–391. https://doi.org/10.1111/j.1365-2788.2011.01383.x
- Jackson LA, Sullivan LA, Hodge CN (1993) Stereotype effects of attributions, predictions, and evaluations: no two social judgments are quite alike. J Pers Soc Psychol 65(1):69–84
- Jussim L, Coleman LM, Lerch L (1987) The nature of stereotypes: a comparison and integration of three theories. J Pers Soc Psychol 52(3):536–546. https://doi.org/10.1037/0022-3514.52.3.536
- Kassin SM, Neumann K (1997) On the power of confession evidence: an experimental test of the fundamental difference hypothesis. Law Hum Behav 21(5):469–484. https://doi.org/10.1023/A: 1024871622490
- Kassin SM, Sukel H (1997) Coerced confessions and the jury: an experimental test of the 'harmless error' rule. Law Hum Behav 21(1):27– 46. https://doi.org/10.1023/A:1024814009769
- Kassin SM, Wrightsman LS (1980) Prior confessions and mock juror verdicts. J Appl Soc Psychol 10(2):133–146. https://doi.org/10. 1111/j.1559-1816.1980.tb00698.x
- Kassin SM, Wrightsman LS (1981) Coerced confessions, judicial instruction, and mock juror verdicts. J Appl Soc Psychol 11(6):489–506. https://doi.org/10.1111/j.1559-1816.1981.tb00838.x
- Leo RA, Liu B (2009) What do potential jurors know about police interrogation techniques and false confessions? Behav Sci Law 27(3): 381–399. https://doi.org/10.1002/bsl.872
- Malloy LC, Shulman EP, Cauffman E (2014) Interrogations, confessions, and guilty pleas among serious adolescent offenders. Law Hum Behav 38(2):181–193. https://doi.org/10.1037/lhb0000065
- Mann CR (1984) Race and sentencing of female felons: a field study. Int J Women's Stud 7(2):160–172
- Maxwell CD, Robinson AL, Post LA (2003) The impact of race on the adjudication of sexual assault and other violent crimes. J Crim Just 31(6):523–538. https://doi.org/10.1016/j.jcrimjus.2003.08.005
- McConahay JB (1983) Modern racism and modern discrimination: the effects of race, racial attitudes, and context on simulated hiring decisions. Personal Soc Psychol Bull 9(4):551–558. https://doi.org/10. 1177/0146167283094004
- Meeker JW, Jesilow P, Aranda J (1992) Bias in sentencing: a preliminary analysis of community service sentences. Behav Sci Law 10(2): 197–206. https://doi.org/10.1002/bsl.2370100205
- Najdowski CJ, Bottoms BL (2012) Understanding jurors' judgments in cases involving juvenile defendants: effects of confession evidence and intellectual disability. Psychol Public Policy Law 18(2):297– 337. https://doi.org/10.1037/a0025786
- Najdowski CJ, Bottoms BL (2015) Effects of jurors' gender and attitudes toward intellectual disability on judgments in cases involving disabled juvenile defendants. *J Forensic Psychiatry Psychol 26*(3): 407–424. https://doi.org/10.1080/14789949.2015.1017592
- Najdowski CJ, Bottoms BL, Vargas MC (2009) Jurors' perceptions of juvenile defendants: the influence of intellectual disability, abuse history, and confession evidence. Behav Sci Law 27(3):401–430. https://doi.org/10.1002/bsl.873
- Nunez N, Dahl MJ, Tang CM, Jensen BL (2007) Trial venue decisions in juvenile cases: mitigating and extralegal factors matter. Leg Criminol Psychol 12(1):21–39
- Olson MA, Fazio RH (2004) Trait inferences as a function of automatically activated racial attitudes and motivation to control prejudiced reactions. Basic Appl Soc Psychol 26(1):1–11. https://doi.org/10. 1207/s15324834basp2601_1
- Peck JH, Jennings WG (2016) A critical examination of 'being Black' in the juvenile justice system. Law Hum Behav 40(3):219–232. https:// doi.org/10.1037/lbb0000180

- Poulson RL (1990) Mock juror attribution of criminal responsibility: effects of race and the Guilty But Mentally III (GBMI) verdict option. *J Appl Soc Psychol* 20(19, Pt 1):1596–1611. https://doi.org/10. 1111/j.1559-1816.1990.tb01495.x
- Preacher KJ, Hayes AF (2004) SPSS and SAS procedures for estimating indirect effects in simple mediation models. Behav Res Methods Instrum Comput 36(4):717–731. https://doi.org/10.3758/ BF03206553
- Preacher KJ, Rucker DD, Hayes AF (2007) Addressing moderated mediation hypotheses: theory, methods, and prescriptions. Multivar Behav Res 42(1):185–227. https://doi.org/10.1080/ 00273170701341316
- Pica E, Pettalia J, Pozzulo J (2017) The influence of a defendant's chronological age, developmental age, and race on mock juror decision making. J Police Crim Psychol 32(1):66–76. https://doi.org/10. 1007/s11896-016-9201-1
- Pickel KL, Warner TC, Miller TJ, Barnes ZT (2013) Conceptualizing defendants as minorities leads mock jurors to make biased evaluations in retracted confession cases. Psychol Public Policy Law 19(1): 56–69. https://doi.org/10.1037/a0029308
- Ratcliff JJ, Lassiter GD, Jager VM, Lindberg MJ, Elek JK, Hasinski AE (2010) The hidden consequences of racial salience in videotaped interrogations and confessions. Psychol Public Policy Law 16(2): 200–218 https://doi.org/10.1037/a0018482
- Rattan A, Levine CS, Dweck CS, Eberhardt JL (2012) Race and the fragility of the legal distinction between juveniles and adults. PLoS One 7(5). https://doi.org/10.1371/journal.pone.0036680
- Redlich AD, Ghetti S, Quas JA (2008) Perceptions of children during a police interview: a comparison of alleged victims and suspects. J Appl Soc Psychol 38(3):705–735
- Redlich AD, Shteynberg RV (2016) To plead or not to plead: a comparison of juvenile and adult true and false plea decisions. Law Hum Behav 40(6):611–625 https://doi.org/10.1037/lbb0000205
- Redlich AD, Summers A, Hoover S (2010) Self-reported false confessions and false guilty pleas among offenders with mental illness. Law Hum Behav 34(1):79–90 https://doi.org/10.1007/s10979-009-9194-8
- Romalino, C. Q. (2013). Autumn Pasquale murder: Clayton brother pleads guilty in adult court. NJ.Com. Retrieved from http://www. nj.com/gloucestercounty/index.ssf/2013/08/breaking_clayton_ brother_pleads_guilty_in_adult_court_to_autumn_pasquale_kiling. Hhtml. Accessed 8 Oct 2019.
- Stalans LJ, Henry GT (1994) Societal views of justice for adolescents accused of murder: inconsistency between community sentiment and automatic legislative transfers. Law Hum Behav 18(6):675– 696. https://doi.org/10.1007/BF01499331
- Stevenson MC, Bottoms BL (2009) Race shapes perceptions of juvenile offenders in criminal court. J Appl Soc Psychol 39(7):1660–1689. https://doi.org/10.1111/j.1559-1816.2009.00499.x
- Stobbs G, Kebbell M (2003) Jurors' perception of witnesses with intellectual disabilities and the influence of expert evidence. J Appl Res Intellect Disabil 16(2):107–114. https://doi.org/10.1046/j.1468-3148.2003.00151.x
- Tang CM (2018) Children and crime. Rowman & Littlefield, Lanham
- Tang CM, Nunez N, Bourgeois M (2009) Effects of trial venue and pretrial bias on the evaluation of juvenile defendants. Crim Justice Rev 34(2):210–225
- Tang CM, Turner K (2013) Defendant age, pretrial bias, and crime severity influence the judgment of juvenile waiver cases. Am J Forensic Psychol 31(4):5–25
- Taylor V (2004) Maddox, 366 F.3d 992 (9th Cir. 2004)
- Toth J (2002) What happened to Johnnie Jordan? The story of a child turning violent. The Free Press, New York
- Trowbridge BC (2003) Suggestibility and confessions. Am J Forensic Psychol 21(1):5–23

- Wiley TA, Bottoms BL (2009) Effects of defendant sexual orientation on jurors' perceptions of child sexual assault. Law Hum Behav 33(1): 46–60. https://doi.org/10.1007/s10979-008-9131-2
- Wilson C (2017), Study: "Adultification" has black girls facing harsher punishments. ABA J, 20
- Woody W, Forrest KD (2009) Effects of false-evidence ploys and expert testimony on jurors' verdicts, recommended sentences, and

perceptions of confession evidence. Behav Sci Law 27(3):333–360. https://doi.org/10.1002/bsl.8

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.