



Experimental Research on Shooter Bias: Ready (or Relevant) for Application in the Courtroom?☆



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Police officers are charged with protecting the public, and they must make difficult life-or-death decisions in tense circumstances. High-profile instances of officers shooting innocent Black people led to a flurry of shooter bias research, which examines how race influences split-second shooting decisions. We give an overview of the evidence in this literature to date, to evaluate the robustness of the evidence related to shooter bias and police officers. The extant experimental evidence from police officer samples is mixed, and does not allow us to make any strong inferences about the role of race in officers' shooting decisions. We then discuss whether the questions asked by shooter bias research are even relevant to the decisions jurors must during cases of officer-involved shootings.

Keywords: Police officers, Race, Shooter Bias, Robustness, Law, Courtroom

The tragic deaths of Black men and women at the hands of police officers, which led to considerable public outcry and accusations of bias on the part of police officers, motivated a flurry of experimental research examining the influence of race on split-second shooting decisions (e.g., Correll, Park, Judd, & Wittenbrink, 2002; Cox, Devine, Plant, & Schwartz, 2014; Plant, Peruche, & Butz, 2005). Precisely because it is not possible to know in any given instance whether the race of a suspect influences decisions to shoot or not, scientists have designed experimental studies to carefully manipulate suspect race and whether suspects are holding dangerous objects (e.g., guns) to explore the possibility that race could influence shooting decisions. Could the race of the suspect affect the likelihood of shooting whether or not dangerous objects are present? Careful consideration of this growing literature reveals that these issues are complex, and at present, the literature yields no easy, straightforward answers about the role race plays in split-second shooting decisions. We will review some of the complexities of this research, and argue that caution should be exercised in applying this work in the courtroom.

Shooter Bias Evidence is Mixed

Experimental research in this area builds on a paradigm first developed by Correll et al. (2002), and typically involves participants completing a computer simulation in which they make “shoot” or “don't shoot” decisions in response to pictures or videos of Black or White male “suspects.” These are sequential decisions, in which a single “suspect” appears on the screen at a time, holding either a gun or a non-threatening object, such as a wallet or cell phone. For each suspect, the participant must quickly decide whether to “shoot” or “not shoot”, based on whether a gun is present. Across many of these trials, participants see several of every possible combination of suspect race and object (i.e., Black suspect with gun, White suspect with gun, Black suspect with neutral object, and White suspect with neutral object). These paradigms are set up, therefore, to examine the extent to which suspect race influences shooting decisions and shooting errors. Interest centers on two primary outcomes: the speed with which decisions are made, and the patterns of errors. For these outcomes, respectively, “shooter bias” is

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manifested in (1) quicker correct “shoot” decisions for Black than White suspects holding guns, and (2) more shooting errors for unarmed Black than White suspects.

Early research in this area, conducted with lay samples (e.g., college students and community members), regularly obtained the shooter bias patterns (e.g., Correll et al., 2002; Plant et al., 2005). The findings from these studies received a great deal of attention and raised concerns that race may unduly bias shooting decisions. Sensibly, questions arose as to whether the findings with lay samples would generalize to police officers, the population most relevant for issues of application and evaluating whether a bias exists for shooting decisions. Officers differ from lay samples in the extent to which they have relevant training and the extent to which they would likely ever encounter the need to make such split second shooting decisions.

Two aspects of the findings with police officers are noteworthy. First, the findings from research conducted with police officers are decidedly more mixed than the findings with lay samples. In some studies, officers show shooter bias patterns on reaction times and errors (Ma et al., 2013; Plant & Peruche, 2005; Sim, Correll, & Sadler, 2013); in other studies, however, officers show no racial bias in their errors (Correll et al., 2007; Cox et al., 2014; Sim et al., 2013) or show a *reverse* shooter bias pattern, whereby the officers fail to shoot armed targets (James, James, & Ryan, 2016; James, Vila, & Daratha, 2013). The source of the discrepancies among studies with officers is uncertain and may reflect methodological differences (e.g., different studies use very different shooter simulation procedures, see Cox et al., 2014 for further review of these variations). The second important insight from these studies is that whenever officer and lay samples have been compared, officers display less bias in their shooting decisions than do the lay samples. This latter point stands in stark contrast to some public discourse that often implies or directly states that police officers are especially racist or biased—at least in shooter bias simulations, they display *less* bias than non-officers (for further review, see Cox et al., 2014).

Shooter Bias Research and the Courtroom

What are the implications of these findings with regard to the courtroom? Lacking a robust, consistent pattern, more work would be needed before one could confidently take steps to apply the work broadly within the criminal justice system. Further, it is not clear how shooter bias research corresponds to the specific decisions juries are asked to make. The key question posed by shooter bias researchers reflects the public outcry surrounding officer-involved shootings of innocent Black people: Does race unduly influence officers’ shooting decisions? Even if we had a clear answer to this question in the experimental literature, that answer may not be relevant in the courtroom. As we review next, in cases of officer-involved shootings, the criminal justice system is not tasked with determining whether race played a role in a shooting mistake.¹

When a police officer is involved in a fatal shooting incident, the district attorney (DA) must decide whether to press criminal charges, a determination that is primarily procedural. This determination centers on whether the use of deadly force was reasonable based on the circumstances, and whether the officer’s actions followed standard police procedures in the escalation of force. Often, any legal involvement in an officer-involved shooting ends at this initial stage, with no criminal proceedings—although there may have been a deadly, tragic shooting, it may have fallen within the standard procedures.

If, however, criminal charges are brought, the charge will most likely be reckless, negligent, or intentional homicide. We will set aside intentional homicide because shooter bias research, by definition, examines shooting *mistakes* (i.e., unintentional errors). For reckless or negligent homicide, the jury decides whether the officer’s conduct was reckless or negligent. These jury decisions will be closely connected to whether the officers followed standard police procedures, as with the DA’s determination above. For example, a shooting mistake may occur after an officer recklessly entered a dangerous situation alone, when procedure says that they should have waited for backup to arrive. In that case, the jury must decide whether the officer’s behavior was reckless or if it was somehow justified (e.g., if they had to enter the situation without backup because waiting would have put someone else at risk). Of key importance here, however, is that knowing race does (or does not) bias officers’ decisions cannot tell us about *whether* the officer was reckless. Perhaps suspect race made the officer more likely to be reckless, more likely to violate procedure, or more likely to make a shooting mistake. In any of these cases, however, knowing the likely influence of race does not inform *whether* the officer was reckless or violated procedure. In fact, shooter bias research, as it exists so far, does not examine whether race influences officers’ likelihood of violating procedures; it assesses how race influences shooting mistakes. But, in a court case, it is already known that a mistake was made. Whether race influenced that mistake, as shooter bias research currently seeks to understand, is irrelevant for the court case. Juries simply are never asked to determine whether race plays a role in an officer-involved shooting. A robust shooter bias literature could provide insights into *why* an officer violated procedure or behaved recklessly or negligently, but the key decisions—*whether* procedure was violated, *whether* the officer was reckless or negligent—cannot be informed by shooter bias research.

How Can Shooter Bias Inform the Public?

As researchers and as a society, shooter bias research can be used to help make sense of shooting tragedies, as we work toward a deeper understanding of the social and psychological factors that contribute to shooting mistakes. In our view, rather than informing courtroom decisions, shooter bias research is better used to inform public programs or better police training to prevent shooting incidents, to promote better police–citizen

¹ We are not lawyers. We have worked with police departments for many years, and during the preparation of this article, we consulted with police officers as well

as criminal defense and prosecution attorneys. The analysis we offer represents our best understanding of the issues and legal proceedings.

interactions, and to effect institutional and societal changes. The relatively robust patterns of shooter bias shown in lay samples can illustrate how stereotypes and unintentional biases can unduly influence behavior, in opposition to one's conscious values (Devine, 1989). Indeed, research with lay samples is often geared not toward direct application, but toward understanding cognitive mechanisms and testing theoretical assumptions about race and split-second decisions (e.g., Correll, Wittenbrink, Park, Judd, & Goyle, 2011; Plant et al., 2005). This work can serve to motivate people to work harder for personal and institutional change and to combat stereotypes and biases in themselves and in society (Amodio, Devine, & Harmon-Jones, 2007; Devine, 1989; Devine, Monteith, Zuwerink, & Elliot, 1991; Devine, Forscher, Austin, & Cox, 2012; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002; Monteith, 1993; Plant & Devine, 1998).

It is deeply unsettling that the color of someone's skin could lead to them dying at the hands of a law enforcement officer. When such tragedies happen, we as a society want justice, and those devoted to fighting for social justice point to these tragedies as evidence of the deep-seated racial issues in the United States. For these reasons, it often seems readily apparent that shooter bias research should, of course, be applied in the courtroom—the place where justice is served. Shooter bias research, however, does not yet display a robustness and consistency necessary to make any confident claims related to police officers' vulnerability to showing patterns of shooter bias. Further, the legal and procedural considerations, as they currently stand, are orthogonal to the considerations addressed in shooter bias experiments. Although this work may not be appropriate for courtroom application, that makes it no less important as we, as a society, strive to understand and overcome systemic racism and prejudice, and work to promote justice for all.

Author Contributions

W.T.L. Cox organized the ideas, consulted with experts, and wrote the initial draft of the paper, which was then refined with P.G. Devine.

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