Shooting Deaths of Unarmed Racial Minorities: Understanding the Role of Racial Stereotypes on Decisions to Shoot

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The shootings of Amadou Diallo, Michael Brown, and other unarmed African Americans by police officers propelled social psychological research regarding the influence of racial stereotypes on decisions to shoot. Using the full-cycle model as a frame, we contextualize the shootings of unarmed minorities and the empirical research on how racial stereotypes affect perception and behavior. Focusing on the “shooter bias” phenomenon, we detail what social psychological research knows about decisions to shoot in nonpolice samples and what needs further empirical research. We highlight the complexity and dynamic nature of shooting decisions and the need for more translational research with police officers to fully understand the potential effect. Next, we examine empirical interventions that aim to reduce the applicability of activated stereotypes on shooting behavior. Finally, we finish with a discussion of the practical implications that this research has for police, training, and community relations.

Keywords: race, stereotypes, shooter bias, police, decision making

Shortly after midnight on February 5, 1999, 22-year-old Amadou Diallo was standing outside his home in New York when he was approached by four plain-clothed New York City police officers. Although he was unrelated to the crime, the West African immigrant matched the description of a suspect wanted for robbery and rape. When Diallo reached into his jacket pocket to show identification, the officers mistook his wallet for a gun and fired 41 shots at close range. Nineteen bullets struck and killed Diallo. His death led to widespread protests regarding perceived racial injustice in policing. In the years following, the instances of unarmed Blacks and other racial minorities shot and killed by police have continued to spur racial tensions between racial minorities and law enforcement. Oscar Grant, Michael Brown, and Samuel DuBose are further examples of unarmed racial minorities who were shot and killed by police officers, subsequently becoming symbols of perceived racial bias in policing.

Similar shootings and protests have been noted in the United Kingdom (Moore, 2011) and Canada (Mangione, 2014).

How can scientific researchers help individuals, communities, and police departments understand the complexities involved in police shootings of unarmed racial minorities? What do researchers know—and importantly not yet know—about the role of racial stereotypes on decisions to shoot? The current state of the empirical literature has focused on the psychological processes associated with decisions to shoot among nonpolice populations, leaving an important translational gap when attempting to apply those findings and lessons with police officers.

Scientific research cannot pinpoint the causal role of police officers’ racial bias—either implicit or explicit—in any one specific shooting incident. However, examining these incidents as representative of a broad societal phenomenon and highlighting their potential connection to basic social psychological literature on race and decision making can aid in our knowledge of this multifaceted and dynamic issue. Using the full-cycle model as a frame, we discuss the interplay between social observation, laboratory research, and field research with police officers necessary to produce a thorough understanding of the role of race on shooting decisions.
We begin by examining the existing empirical social psychological literature on the role of racial stereotypes in decisions to shoot, with an emphasis on what we know from laboratory experiments with nonpolice populations and what we do not yet know about how these effects pertain to police officers’ behaviors in the field. In this analysis, we explore the automatic and controlled components (Bargh & Chartrand, 1999) involved in these shooting decisions, emphasizing that shooting decisions are often based on the automatic activation of societal group stereotypes when making quick decisions, rather than on explicit personal prejudice. We then review empirically supported interventions that target decisions to shoot and suggest areas for further development. Finally, we close with a discussion of the practical and policy implications that this research can have for police officers, police training, and community relations.

A Social Psychological Framework for Decisions to Shoot

To the potential surprise of some, there is a dearth of empirical evidence identifying the causal role of suspect race on police behavior (Goff & Kahn, 2012). That is, little empirical research exists that directly ties police officers’ racial attitudes to their behavior with racial minority suspects in the field. Disparity research is prominent, finding differential policing outcomes for minority compared to majority group members (e.g., Ridgeway, 2006). However, disparity rates alone do not necessarily mean that officer racial attitudes were the cause of the disparate outcomes, rather than structural inequalities, biased institutional policies, or the like (for a review, see Goff & Kahn, 2012). Nor is it possible for researchers to retroactively determine what motivated a particular officer’s decision to shoot in any one given situation. What research can aid in is determining the psychological processes through which decisions operate and the factors that can influence the likelihood of mistaken shooting decisions based on race. With this background, we examine what psychological science knows and what needs further research regarding the role of suspect race in shooting decisions.

We frame our examination of decisions to shoot through the lens of the full-cycle model, which provides a framework for the psychological investigation of social issues (Mortensen & Cialdini, 2010). The full-cycle model recommends utilizing naturalistic observation, theory, and lab experimentation and moving cyclically between these methods to fully understand a social phenomenon. The process begins with the observation of important social phenomena in the natural environment. Researchers then theorize and test for causality and mediating processes in a laboratory. From here, they must return to the field to assess the match between the phenomena as it naturally occurs and how it occurs in the lab. Controlled properties of the lab allow for the systematic investigation of the issue, while the return to the natural environment both corroborates laboratory findings and bolsters external validity.

Applying the full-cycle model to shooting decisions can help us to critically examine the existing literature and highlight limitations of what is currently known about this timely social justice issue. Starting with naturalistic observation as the first step in the full-cycle model, the shooting death of Amadou Diallo acted as an initial social observation and catalyst for psychological researchers to study the role of suspect race on decisions to shoot. Moving next to theory development through controlled laboratory research, extensive laboratory studies, primarily with nonpolice populations, afforded researchers a level of control impossible in the real world to test for mediating and moderating effects, which we describe below. Having informed and built basic theory, a few translational investigations testing these processes with police officers have been conducted, but much more research is needed. The basic knowledge gained has been used to inform interventions to reduce the potential for racial disparities in policing. In this article, we review the present state of the literature in light of the full-cycle model and suggest the need to develop its full implementation by focusing more on translational research with police officers.

We begin with what psychological research has revealed about decisions to shoot. To understand the impact of stereotypes on decision making, we must first recognize how the brain processes social stimuli. Dual-processing models describe automatic and controlled processes (Bargh & Chartrand, 1999; Devine, 1989; Smith & DeCoster, 2000). Automatic process-
ing is quick, effortless, and does not require intention. Controlled processing is more deliberative, effortful, and slower, necessitating both cognitive capacity and motivation by the individual. Relatedly, implicit attitudes are automatic evaluations of social stimuli beneath an individual’s conscious awareness, whereas explicit attitudes are the consciously accessible and deliberative evaluations of social categories (Fazio & Olson, 2003; Greenwald & Banaji, 1995).

Within the policing context, a police officer may hold explicitly biased beliefs about a racial group and consciously use those beliefs when deciding to shoot a minority suspect. Although this example may exist in police departments, a more automatic and subtle process can also affect decisions to shoot. As we will see in our review of “shooter bias” (i.e., stereotype consistent decisions to shoot) below, these shooting decisions can be affected by automatic processes involving stereotypic associations between racial groups and criminality and aggression. Importantly, this route does not require one to hold explicitly biased attitudes or beliefs to produce racially biased shooting patterns. Indeed, explicit racial bias has become less frequently endorsed within society over the past 50 years, whereas implicit bias has become more prevalent and pervasive (Dovidio, Glick, & Rudman, 2005). Although we do not discount the existence and importance of explicit racial attitudes negatively influencing police behavior, psychological research can also speak to the significance of less conscious attitudes on decisions to shoot.

Taking Social Phenomena Into the Lab: Empirical Laboratory Investigations With Nonpolice Samples

Responding to the death of Amadou Diallo, social psychologists investigated how racial stereotypes affect decision making using controlled experiments with nonpolice samples in a variety of paradigms, including weapon misidentification and shooter bias (Correll, Park, Judd, & Wittenbrink, 2002; Greenwald, Oakes, & Hoffman, 2003; Payne, 2001). These initial studies utilize undergraduate students or local community members as their participants. An overarching theme in these empirical studies is the automatic stereotypic association between Blacks and criminality as the mechanism through which racially biased shooting decisions can occur.

Weapon Misidentification

Early investigations using the weapon misidentification paradigm examined the incorrect perception of benign objects (e.g., a wallet) as weapons when primed to think of racial minorities. Payne (2001) developed a task assessing race-based bias in weapon identification based on the knowledge that individuals will respond faster and more accurately to stereotype-congruent information (e.g., Black and gun) compared to stereotype-incongruent information (e.g., Black and tool). In the task, participants were shown a Black or White face prime, which they were told to ignore, followed by an image of an object that was a tool or a gun. Participants’ task was to indicate whether the presented object was a tool or a gun as quickly and accurately as possible. As expected, participants were faster to identify the object as a gun if they were primed with a Black face compared to a White face (Payne, 2001). The Black face primed the Black criminal stereotype, which made the stereotype consistent gun easier and faster to identify. Further, under time pressure, which facilitates more automatic processing, participants were more likely to mistakenly identify tools as guns when they were primed with a Black face. As demonstrated by these results, Black and gun were conceptually linked in participants’ minds.

Examining the automatic and controlled components involved in the decision-making process can help to understand the cause of weapon misidentification. The errors (i.e., when individuals incorrectly identified a tool as a gun) under time pressure in the weapon identification task were consistent with the executive failure hypothesis (Payne, 2005), which states that it is an individual’s inability to control his or her automatic responses, rather than an incorrect perception, which leads to error in decision making. Because controlled processing is slower than automatic processing, individuals are unable to control biased error responses under time pressure but can when time is not a factor (Payne, 2005; Payne, Shimizu, & Jacoby, 2005).
Shooter Bias

Building off the weapon misidentification task, investigations into “shooter bias” more directly examined the role of racial stereotypes on decisions to shoot with nonpolice samples, involving a similar focus on automatic and controlled components. Correll et al. (2002) developed a quick shoot/do not shoot videogame to simulate these police shooting decisions, while experimentally manipulating suspect race and object type. During each trial in the simulation, a series of city backgrounds were presented until a Black or White male target appeared. The target held either a nonthreatening object (e.g., a cell phone or wallet) or a gun. Participants quickly decided to shoot or do not shoot the target based on the object type.

Participants’ decisions were examined for “shooter bias,” which refers to a racially disparate decision pattern in the shooting context. Shooter bias is operationalized in two ways: (a) response latencies, which reflect the speed with which participants make the correct decision, and (b) error rates, or the number of trials in which participants make an incorrect decision. In an analysis of correct decision response latencies, participants correctly fired at the armed targets more quickly when they were Black than when they were White—that is, the group stereotype facilitated the correct shooting response for armed Black targets. They correctly decided to not shoot unarmed targets more quickly when they were White than Black. When time pressure was heightened by a shortened response window, the bias shifted into error rates (shooting an unarmed target or failing to shoot an armed target). With unarmed targets, participants correctly fired at the armed targets more quickly when they were Black than when they were White—that is, the group stereotype facilitated the correct shooting response for armed Black targets. They correctly decided to not shoot unarmed targets more quickly when they were White than Black. When time pressure was heightened by a shortened response window, the bias shifted into error rates (shooting an unarmed target or failing to shoot an armed target). With unarmed targets, participants were more likely to mistakenly shoot when the target was Black than when they were White. Consistently, they were also more likely to fail to shoot an armed White than an armed Black target (Correll et al., 2002).

Signal detection analyses were run to examine participants’ responses patterns in four categories: correct hits (correctly shooting an armed target), false alarms (incorrectly shooting an unarmed target), correct rejections (correctly not shooting an unarmed target), and misses (incorrectly shooting an armed target). These analyses indicated that participants’ decision criterion, or the threshold at which shoot/do not shoot decisions were made, was lower for the decision to shoot Black targets than White targets, resulting in more “false alarms,” or shots fired at unarmed targets (Correll et al., 2002). They required less certainty before deciding to shoot Black targets, producing the pattern of increased false alarms and misses compared to Whites.

Similar patterns of racially influenced responses were found using another shooter task that introduced additional complexity and context in the lab (Greenwald et al., 2003). Targets in this simulation belonged to one of three groups: police officers and criminals (both holding guns) or citizens (holding harmless objects). In one version, Blacks were police officers and Whites were criminals, and in a second version, the roles were reversed. Citizens were a mix of both races in both versions. Consistent with Correll et al.’s (2002) shooter bias effect, participants correctly identified guns more quickly for Blacks than Whites and had more difficulty differentiating weapons from nonweapons for Blacks, no matter the role of the Black subject (e.g., police or criminal). The increased complexity and consistent findings in response times and error rates point to the robustness of shooter bias in the lab with nonpolice samples.

What Causes Shooter Bias?

One of the benefits of the laboratory approach to investigate decisions to shoot is the ability to identify the mechanisms by which shooter bias occurs, with a focus on the automatic and controlled processing components involved. Perhaps surprisingly to some, shooter bias is not related to participants’ levels of explicit prejudice (Correll et al., 2002). Instead, stereotype accessibility—particularly the stereotype that links Blacks with criminality—appears to be the key driver of the effect (Correll et al., 2002; Correll, Park, Judd, & Wittenbrink, 2007). The basic process unfolds as the Black suspect activates and primes the Black racial group stereotype and its connected features in the mind of the shooter, which includes perceptions of criminality. This facilitates stereotype-consistent responses (e.g., shooting an armed Black suspect) and speeds up processing in those situations. However, it also makes stereotype-consistent errors more likely, as the predisposition to act in line with the stereotype influences behavior. Enough time and cognitive capacity...
are thus required to override the stereotype-consistent response (Correll, Urland, & Ito, 2006). Controlled processing can override the automatically activated stereotype, but when time is limited, it is less likely to do so.

Factors that increase the saliency or strength of the stereotypic connection between a racial group and criminality can affect the strength of shooter bias. In one experimental demonstration, participants who read articles about armed robberies committed by Black men subsequently set a lower criterion for the decision to shoot Black, but not White, targets (Correll, Park, Judd, & Wittenbrink, 2007). When the shooter task was manipulated to include a greater percentage of Black targets with guns than with nonweapons, the magnitude of shooter bias grew as the accessibility of the stereotype of Blacks as violent increased. Furthermore, because Black males are more strongly stereotyped as dangerous and aggressive within the United States than Black females, shooter bias is directed at Black men more than Black women (Plant, Goplen, & Males, 2006). That is, the more individuals have associated violent stereotypes and would be perceived as an outgroup by Whites. White participants high in beliefs about interpersonal danger mistakenly shot unarmed Asian and Black targets more often than White targets, although Blacks were the most likely to be mistakenly shot. Although cultural stereotypes about violence may exacerbate shooter bias, shooter bias may also involve a response to outgroup threat for some individuals.

Social–cognitive neuroscience research has also shed light on the automatic and controlled processing involved in shooter bias. One investigation examined threat and cognitive control as possible mechanisms by measuring event-related potentials (ERPs), or fluctuations in electrical activity of the brain in response to stimuli (Correll et al., 2006). Separate components of ERPs responded differently to the Black and White targets: the P200, which indexes threat perception, was larger (i.e., more strongly associated), whereas the N200, which is linked to cognitive control process such as the decision not to shoot, was smaller (i.e., less strongly associated) with the Black targets relative to the White. Strikingly, unarmed Blacks were processed more similarly in the brain to armed Blacks and armed Whites. These responses in the P200 and N200 predicted participants’ degree of shooter bias and mediated the relationship between their cultural stereotypes and their biased shooting behavior (Correll et al., 2006). That is, the more individuals have higher P200s and lower N200s when viewing Black compared to White targets, the greater amount of shooter bias they displayed in their responses. Furthermore, the stronger the participants endorsed the cultural stereotype, the
more they showed this P200 and N200 pattern, which influenced their shooting decisions. Again, the strength and accessibility of stereotypes affect how the brain processes Black targets and drives the decisions to shoot.

Role of Context in Decisions to Shoot

Shootings do not occur devoid of context in the real world, making investigations into the role of environmental context on shooter bias essential. In one test of contextual effects on shooter bias, the backgrounds used in the shooter task video game were manipulated to appear dangerous or neutral (Correll, Wittenbrink, Park, Judd, & Goyle, 2011). When the backgrounds were neutral, the original shooter bias effects from Correll et al. (2002) were replicated. However, when the backgrounds conveyed a more dangerous environment, shooter bias—that is, the difference in shooting rates between Blacks and Whites—was not present. However, this is because Whites were being mistakenly shot more in the dangerous context, similar to Blacks. Although the decision criterion for shooting Blacks was lower than for Whites in neutral environments, the criteria for shooting White suspects in dangerous environments were lowered so as to be roughly the same as the criteria for shooting Black suspects. The threat associated with the dangerous context reduced the racial differences in decisions to shoot by making participants shoot more at all targets.

Individual Differences in Biased Decisions to Shoot

Laboratory studies have also investigated if certain types of people are more likely to display shooter bias in their decision making. In one investigation, White participants who reported a higher racial ingroup identity showed a stronger tendency to shoot unarmed Black targets, whereas the decision to shoot White targets was unaffected (Kenworthy, Barden, Diamond, & del Carmen, 2011). Relatedly, racial categories can interact with other social identities to influence shooting decisions. Black suspects in the shooter game who shared another common social identity with the participants (e.g., same university membership) experienced less shooter bias than when that other social identity was another outgroup (e.g., rival university membership; Kahn & Davies, 2013). The shared social identity membership between targets and participants reduced the overall levels of shooter bias. The connection between implicit stereotypes and shooter bias is also strongest for those who have strong implicit associations between themselves and prejudice (i.e., implicitly seeing themselves as prejudiced) but no implicit negative attitudes about prejudice (i.e., not implicitly believing prejudice is bad; Glaser & Knowles, 2008; Park, Glaser, & Knowles, 2008). For these individuals, stereotype-consistent shooting decisions were in line with implicit beliefs.

Summary

Fifteen years of social psychological research has confirmed the existence of shooter bias in nonpolice undergraduate and community samples. This bias results not from explicit racist attitudes but from the unconscious activation of stereotypes linking a particular group to danger, which facilitates stereotype-consistent responses unless the individual has the cognitive capacity and time to counteract it. Laboratory work has also uncovered important moderators of this effect, such as phenotypic stereotypicality of suspects, environmental context, and individual beliefs about outgroup threats. In keeping with the full-cycle model, these results from the laboratory should now be brought into the field with police officers for corroboration.

Translating Lab Research to Police in the Field: What We Know and What We Do Not Know

As suggested by the full-cycle model, the key translational issue for shooter bias research is whether police officers themselves demonstrate shooter bias in the same ways as these community samples. Here, again perhaps surprisingly, evidence is both limited and mixed. Plant and Peruche (2005) sampled officers from Florida and found that, before a training intervention program, the officers were more likely to mistakenly shoot unarmed Black targets than unarmed White targets, consistent with Correll et al.’s (2002) undergraduate participants. Officers who had more negative interactions with Blacks and who held more negative attitudes about
them were more prone to this bias (Peruche & Plant, 2006). Similar research with police officers in live-action interactive video simulations has shown that officers used more deadly force against Blacks than Whites (see Goff & Kahn, 2012). Relatedly, police stereotype Blacks as criminals, particularly Blacks whose facial features are highly stereotypical (Eberhardt et al., 2004), and suspect phenotypic racial stereotypicality predicts police officer use of force in the field (Kahn, Goff, & Lee, 2015). Research from the Center for Policing Equity finds that officer psychological attitudes predict their behavior, including use of force, with minority suspects in the field (Goff & Martin, 2012; Goff, Martin, & Smiedt, 2012).

However, not all studies with police officers have confirmed the existence of shooter bias with this highly relevant population. Relative to a community sample, police officers made correct responses faster, were better at differentiating armed and unarmed suspects, set a higher decision criterion for shooting Black targets, and did not show shooter bias in error rates (Correll, Park, Judd, Wittenbrink, et al., 2007). Officers were similar to the community sample in that both demonstrated longer response latencies when reacting to stereotype-inconsistent targets (Whites with guns and Blacks with non-weapons), but police officers ultimately made more correct decisions. Officers who worked in urban, high-crime, minority-dominated districts showed a greater bias in their response latencies than those who worked in less populated, low-crime areas. This pattern of finding bias by police officers only in response times, but not in actual mistaken shooting decisions, has been replicated in other samples (Cox, Devine, Plant, & Schwartz, 2014; Sim, Correll, & Sadler, 2013). Police officers may hold similar racial bias at the implicit level, influencing their differential reaction times, but may be better at controlling the ultimate decision being made than a community sample.

Other studies with police officers have examined the interaction of contextual variables and race on shooting decisions. In one study, officer race interacted with neighborhood race (either predominately Black or White) but did not interact with suspect race to influence decision making. Specifically, Cox et al. (2014) found that officers made more incorrect decisions in other-race neighborhoods (i.e., opposite race as the officer) than in same-race neighborhoods. Other researchers observing police activity in the field with suspects concluded that neighborhood socioeconomic status, rather than suspect race, explain racially disparate police force decisions (Terrill & Reisig, 2003). Combined with laboratory studies (Correll et al., 2011), these results suggest that contextual cues, rather than suspect race, may also be activating threat and affecting police behavior. Furthermore, a study employing high-quality video to increase realism found that officers were slower to shoot armed Black suspects and were less likely to mistakenly shoot Black suspects, suggesting a reverse shooter bias pattern (James, Vila, & Daratha, 2013).

How does one interpret these mixed results with police officers regarding the presence and form of shooter bias? The real-world examples of shootings seem to stand in contrast to the inconsistent empirical results. One explanation is the few studies that directly test shooter bias with police officers, primarily due to a lack of access. As Goff and Kahn (2012) describe, there has been a historical lack of trust and access between academic researchers and police departments, which has limited the amount of research on racial bias in policing. With a small number of direct samples and conflicting results, it is imperative that more translational field research be done directly with police officers regarding the role of race, context, and individual differences in shooting decisions. Only by further elaboration on this component of the full-cycle model can we hope to fully understand this important social issue.

Like other members of society, we suggest that police officers are not immune to forming negative implicit attitudes as a result of their experiences and the culture in which they are embedded (Rudman, 2004), suggesting they may hold comparable levels of implicit bias and stereotypes that have the potential to affect decisions to shoot. Therefore, much of the laboratory, nonpolice research on shooter bias can be useful for learning about and counteracting any bias that does exist with this population. However, as intriguingly suggested by Sim et al. (2013), there may be aspects of police training that, for some individuals, counteract automatically activated stereotypes and inhibit incorrect decision making.
What’s Next? The Next Needed Phase of Shooter Bias Research

As highlighted by the full-cycle model, there is a dire need for more translational research on decisions to shoot with police officers. What is missing is a thorough and exhaustive evaluation of shooter bias with police to examine the role of training and experience on decisions to shoot. Only from research with this population will researchers be able to both better understand the role of stereotypes on decisions to shoot, as well as design empirically grounded interventions to promote equitable policing. We also suggest the need to more thoroughly examine police behavior across the range of use of force, rather than a focus only on decisions to shoot. Although decisions to shoot are a highly significant outcome, knowledge can be gained from an examination across the range of use of force with regards to race in policing. As these decisions are complex and multiply determined, there needs to be increased research on factors that can interact with racial stereotypes to influence decisions to shoot, rather than a focus on race in isolation. In particular, we suggest increased investigation into the role of neighborhood context and individual motivations that alter decisions to shoot. These additional nonracial factors may produce perceptions of threat that are independent of and interact with suspect race to influence police behavior. Understanding complex situational factors on decisions to shoot is one of the most pressing areas for translational research but is by no means the only one.

Interventions on Decisions to Shoot

A key step in the full-cycle model is using the knowledge gained from experimentally controlled laboratory studies and translational field research to inform interventions. As research has illuminated, it is the activation of stereotypes and automatic processing that results in shooter bias, rather than an individual’s explicit prejudices. Although more research needs to be done with police samples to explicate the mixed evidence in this population, some researchers have used existing evidence to inform interventions. A common theme in these interventions is breaking activation or applicability of automatically activated stereotypes and their link to behavior. Many of the interventions focusing on counteracting shooter bias have centered on the role of training to reduce its negative impacts on decision making. Training involving practice on the shooter bias task in which suspect race is unrelated to object type reduced shooter bias in undergraduate samples (Plant, Peruche, & Butz, 2005). Similarly, police officers who initially showed bias in decisions to shoot saw that bias eliminated after extensive training that emphasized that race was nondiagnostic of correct decision making (Plant & Peruche, 2005). Training repeatedly invalidates the utility of the stereotype for decision making, which breaks down its impact on behavior. How long lasting these effects are or whether they generalize beyond computer tasks for measuring decisions to shoot has yet to be determined.

In another intervention, police officers who were given training on the shooter task showed no bias in decision making, even with a manipulation increasing the accessibility of the Black-criminal stereotype (Sim et al., 2013). Ironically, routine job experiences may have deleterious effects when it comes to shooter bias. Experiences or training that reinforces the diagnostic nature of race and criminality, such as officers serving on drug or gang enforcement teams that might overly encounter racial minorities, can potentially reinforce bias by increasing stereotype accessibility. For these officers, shooter bias training did not reduce racially biased decision making (Sim et al., 2013). Instead, the racial cues were seen as task relevant and thus were not affected by the intervention. This finding relates to our earlier point on clarifying the effect of officer training on shooter bias to precisely target mechanisms for reducing bias, as job experience may increase bias for some while decreasing bias for others.

These interventions may succeed in reducing biased decision making by teaching individuals to inhibit the activation of racial stereotypes, such that they no longer affect decision making, or by helping them to focus on the objects at hand, irrespective of target race (Sim et al., 2013). Current evidence points to another possibility, in which training assists police officers and individuals by increasing cognitive control. That is, training helps officers enact cognitive control in their decision making despite the activated racial stereotypes (Sim et al., 2013). More targeted intervention research can help to
further tease apart these possibilities and test them empirically against each other to develop empirically grounded intervention strategies. In sum, these interventions aim to reduce the applicability of activated stereotypes on behavior. In order to be most successful, we suggest that police officers should have more opportunities to engage in cognitive control in the face of automatically activated stereotypes in low-stakes settings. Cognitive control should be treated similar to a muscle (Muraven & Baumeister, 2000) that needs training and exercise to be effective. These trainings should occur in waves, as they progressively increase to complex “high-stakes” environments that approximate dangerous encounters with suspects in the real world. If the officer holds less biased explicit attitudes, this increased controlled processing will be able to influence decision making to produce unbiased outcomes.

Practical and Policy Implications

As the full-cycle model suggests, by combining tightly controlled laboratory studies, in which individual factors can be isolated and causality determined, with applied research with police officers, progress can be made into understanding potentially biased shooting decisions. Shootings of unarmed minorities occur in complex and dynamic environments, with multiple people, actions, and responses involved, each imparting influence on police behavior. Partnerships between social science researchers and police departments should continue to foster this translational research with high priority. Recent partnerships through the Center for Policing Equity (www.policingequity.org) can provide a successful model for conducting highly scientific basic research in police departments around equity issues.

From a practical standpoint, despite the mixed translational results with police officers, police departments should be proactive in addressing the issue of race in policing. Police departments should engage their officers in continued training on the effects of racial stereotypes on decision making, focusing on the role of implicit and nonconscious bias. Officers should have the opportunity to develop and engage in cognitive control in the face of automatically activated stereotypes in low-stakes training settings, which then become gradually more complex. The more this cognitive control is practiced, the more likely that results will translate into the field. Although shooter bias interventions in the lab have promising initial results, we need more long-term follow-ups to see how long these training benefits last. Policies at the departmental, city, state, and national levels should support this training and encourage its implementation.

The participation and engagement of police departments in equity research should be effectively communicated to the community. Publicizing these programs to address potential racial bias demonstrates that police departments are being proactive rather than reactive to important issues. Communicating this message has the potential benefits of increasing public trust and perceptions of police legitimacy with the minority community, which often hold low levels of trust in the police (Tyler & Huo, 2002). Furthermore, holding community workshops on race and police behavior can increase the community’s voice and open dialog into these matters.

The effect of racial stereotypes on behavior is not only a policing issue but also a reflection of the larger phenomenon of automatic stereotyping that occurs across domains in society. Addressing bias within policing is imperative due to its highly salient and potentially deadly outcomes. Although empirical research can never make up for policing deaths of unarmed minorities, it is through translational research that unnecessary deaths may be prevented.

References


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