

ORIGINAL ARTICLE

Camera Point-of-View Exacerbates Racial Bias in Viewers of Police Use of Force Videos

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The implementation of body-worn cameras (BWC) by policing agencies has received widespread support from many individuals, including citizens and police officers. Despite their increasing prevalence, little is known about how the point-of-view (POV) of these cameras affects perceptions of viewers. In this research, we investigate how POV interacts with skin color of citizens in police use of force videos to affect perceptions of procedural justice. In an experimental study, participants watched eight police use of force videos—half recorded from BWC and half from an onlooker's perspective—in which skin tone of the citizen varied. Results indicate that POV interacts with citizen skin tone such that, compared to the onlooker perspective, the BWC exacerbated viewer racial bias against dark skin tone citizens. Furthermore, identification with the police officer fully mediated this relationship. Results are discussed in relation to media theory and practical implications.

Keywords: Point-of-View, Racial Bias, Police, Use of Force, Procedural Justice, Identification

doi: 10.1093/joc/jqab002

Videos of police–citizen interactions, especially those resulting in brutal use of force against citizens of color, have been influencing perceptions of police and calls for reform for decades. From the 1991 video of Rodney King being brutally beaten by Los Angeles police to smartphone videos taken by onlookers trying to document police actions surfacing almost daily nearly 30 years later, digital technology and social media have dramatically increased the availability of these types of videos, which has

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led to continuous and vigorous outrage, protests, and calls for policing reforms (Lopez, 2016). In 2020, several videos of lethal police violence against Black citizens (e.g., George Floyd) that have been recorded by citizens have led to widespread calls for change in the criminal justice system and a conscious examination of systemic racism woven through the fabric of American society, institutions, and structures.

Videos also are at the heart of widely-supported policing reforms. Body-worn cameras (BWC) videos, which are videos taken by small digital video cameras worn by officers while they are on-duty, are being used in a growing number of policing agencies around the United States (Chapman, 2018; Hyland, 2018) owing to the support they have received from politicians, community leaders, citizens, and even police agencies and officers themselves (Chapman, 2018; White House, 2014). Despite some ethical and privacy concerns, supporters of BWC implementation have argued that the presence of the cameras can foster greater officer and citizen civility, deter breaches of procedural justice, increase transparency within the justice system, improve perceptions of police legitimacy, and reduce complaints against officers (Hedberg, Katz, & Choate, 2017) with the added benefit of the videos providing evidence that may lead to quicker and more just outcomes and training materials that can promote better police preparation (Chapman, 2018). Further, agency adoption of BWCs is often offered as a solution to police violence when it occurs even though evidence does not uniformly support that BWCs are sufficient to reduce inappropriate police use of force (Ariel *et al.*, 2016a, 2016b; Kovera, 2019; Koslicki, Makin, & Willits, 2020).

Thus, videos of police–citizen interactions contribute to perceptions of police (il)legitimacy and facilitate criticism of sociopolitical institutions, as well as lead to more transparency in policing and greater perceptions of procedural justice. In providing the latter, they can also create better circumstances for police–citizen interactions initially as well as potentially provide a less subjective account (e.g., compared to eyewitness statements) of those circumstances after-the-fact. These videos are often used for evidentiary purposes in police use of force investigations and can reveal discrepancies from police and citizen statements. However, the issue of subjectivity of the videos is a concern that rarely is discussed. To the contrary, videos are often touted as the most objective account of these situations that we could obtain (Bakardjiev, 2015). This likely depends on the conditions of the recording, as well as the content and form of the videos. First, videos can only capture what occurred within view of the camera. Further to this point, cameras can be switched off or obstructed, deliberately or inadvertently, leaving elements of context unrecorded (Ariel *et al.*, 2016b). Second, videos cannot provide insight into what the officer, or citizen for that matter, saw and interpreted in the situation due to perceptual distortions and high-stress influences on behaviors and later memories (see Phillips, 2016 for commentary and Brown, 2016 for an example).

Last, and most pertinent to the work presented here, videos are media inherently taken from points-of-view that afford different types of cognition to the viewer owing to the potential for perspective-taking on their contents (Wilson, 1993;

Zettl, 1990). From a growing body of work in communication, we have gained insight into how the point-of-view (POV) of media (e.g., film, video games) alters many psychological processes that are of key importance to evaluating individuals portrayed in them (e.g., Ferchaud & Sanders, 2018; Halfmann et al., 2019; Krcmar & Farrar, 2008, Lim & Reeves, 2009). BWC videos are taken from a first-person POV, which allows viewers to take the perspective of the officer more automatically, due to greater cognitive coupling with the medium (Clark & Chalmers, 1998; Kirsh, 2013). This perspective-taking has implications for the evaluation of both the officer and the citizen in the video (Jones, Crozier, & Strange, 2019; Turner et al., 2019). Videos captured by the devices of onlookers are taken from a third-person perspective, which allows viewers to take a more neutral perspective, potentially creating less cognitive coupling and less direct influence on the evaluations of either party.

Thus, the POV of videos capturing police–citizen interactions impacts how viewers evaluate officers and the citizens within them. Additionally, the content of these videos will play a role in these evaluations, directly and in interaction with their media form characteristics. Of particular import in this context, content related to race is likely to play a crucial role in these evaluations as racial ingroup and outgroup identification can heavily influence psychological processes pertinent to the evaluation of others (Hewstone, Rubin, & Willis, 2002). In general, members of racial groups with darker skin tones are perceived more negatively (Maddox & Gray, 2002) as well as less trustworthy and more culpable for potential wrongdoing, especially when the evaluator does not identify as a member of the same racial group (Blair, Judd, & Chapleau, 2004a; Blair, Judd, & Fallman, 2004b; Sommers & Ellsworth, 2000). Individuals with darker skin tones are also killed in police shootings at a higher rate (Crutchfield, Fisher, & Webb, 2017). Because Black citizens are disproportionately the victims of police violence (Kovera, 2019), it is critical to consider the role of racial bias when examining psychological responses to police use of force videos. The study presented here investigates how these two factors relating to content and form—skin tone of the citizen being harmed by police and POV of the video—interact to influence how viewers evaluate perceptions of procedural justice in the interactions of officers and citizens in videos capturing police lethal use of force.

Racial bias in policing and the promise of body-worn cameras

Racial bias in policing is endemic and long documented. For example, police are more likely to stop (Baumgartner, Epp, & Shoub, 2018; Gelman, Fagan, & Kiss, 2007; Kovera, 2019; Langton & Durose, 2013; Pierson et al., 2017) and search (Baumgartner et al., 2018; Fagan et al., 2016; Langton & Durose, 2013). Black compared to White citizens, despite evidence that, of those searched, White citizens are more likely to possess weapons or contraband (Baumgartner et al., 2018; Ross et al., 2017). Police also are more likely to use both lethal and nonlethal force against Black than White citizens (Goff et al., 2016; Kramer & Remster, 2018;

Morrow, White, & Fradella, 2017; Nix et al., 2017; Ross, 2015; Scott et al., 2017) and this relationship holds after controlling for participation in violent crime (Goff et al., 2016). Unarmed Black Americans are 3.5 times more likely to be killed by police officers than are unarmed White Americans (Ross, 2015). Racial disparities are pervasive in the criminal justice system as indicated by inequities in rates of arrest, imprisonment, wrongful convictions, and even jury selection (Kovera, 2019).

Some posit that BWCs may serve to mitigate some of these racial inequities (Kramer et al., 2020). For example, knowledge that one is being observed has been shown to reduce *shooter bias*—an increased likelihood to incorrectly identify a Black target as armed and decide to “shoot” more often—in a computer simulation (Kramer et al., 2020). BWCs have also been used to reveal bias in police–citizen interactions. For example, BWC footage indicates that police use less respectful language with Black, compared to White, citizens during traffic stops (Dixon et al., 2008; Voigt et al., 2017)—and that this behavior is widespread (Voigt et al., 2017). Scholars suggest officer training by utilizing such footage and the interactions they contain may reduce racial bias in policing, including use of force (Makin et al., 2019). Despite these possibilities, a meta-analysis reveals that BWCs do not necessarily result in decreased use of force by police officers (Ariel et al., 2016b)—the main issue being that police officers can selectively turn off their cameras during interactions (Ariel et al., 2016a). Accordingly, scholars propose that use of BWCs must not be discretionary if they are to help reduce racial biases (Bakardjiev, 2015; Kovera, 2019). Further, scholars suggest (Goldsmith, 2010; Thompson, 2005) that the willingness and capability of citizen onlookers to be media-producers capturing and distributing police–citizen interactions may lead to higher standards of police accountability. Some research indicates that the possibility of being recorded and viewed on social media is of top-of-mind for police officers, which may reduce use of force specifically (Brown, 2016).

Despite BWC initiatives being commonly introduced, racial bias in policing persists (Murphy, 2019; Voigt et al., 2017). Although we have increasing knowledge of the role of BWC and onlooker videos on police attitudes and behavior, less empirical research has examined the effects of these videos (either in content or in form) have on audiences’ perceptions of the individuals portrayed in them and perceptions of procedural justice. The theory of procedural justice argues that people’s perceptions of legal authorities are shaped by evaluations of the fairness and equitability of procedures and their application (Tyler, 2003). When perceptions of procedural justice are high, cooperation with, trust of, and evaluations of legitimacy of authorities increase. Work in this area has found that perceptions of procedural justice in police–citizen interactions have two main dimensions: (a) Assessments of quality of the police decision-making (i.e., accurately applying the law, applying it consistently, making decisions based on facts rather than assumptions, etc.) and (b) assessments of quality of treatment of citizens (i.e., respecting citizens, treating citizens with dignity, providing a voice to citizens, etc.; Sunshine & Tyler, 2003; Tyler & Wakslak, 2004).

Certain types of content in police–citizen interaction videos have been shown to decrease perceptions of these procedural justice dimensions, including police use of profanity and other violations of interactional justice such as consistent interruptions, abusive language, and disrespect (Makin et al., 2019; Patton et al., 2017; Terrill, 2005). Importantly, police officers also exert greater use of force and report that it is less important to exercise procedural justice when suspects exhibit what the officers perceive as forms of resistance like being disrespectful, exhibiting threatening behavior, or being intoxicated or seemingly out of control (e.g., emotionally unstable, agitated, suicidal; Boivin, 2017; Makin et al., 2019; Nix et al., 2017). Use of force is more common in these circumstances across recorded evidence of interactions (Makin et al., 2019; Terrill, 2005), and justifications of these use of force incidents often rely on these components in applying qualified immunity. Other content increases perceptions of procedural justice, including police providing opportunities for citizens to explain their circumstances, when police seem to take a neutral stance that does not discriminate or exercise personal biases, when police are polite and respectful, and when police communicate concern, explain their intentions, and justify their actions (Mazerolle et al., 2013; Police Executive Research Forum, 2014).

The importance of form characteristics of the videos being judged for dimensions of procedural justice is less known. Preliminary studies have shown that the camera perspective of BWCs (i.e., first-person officer) leads viewers to judge officer behaviors as more justified and less intentional (Jones et al., 2019; Turner, et al., 2019). Jones et al. argue that this is because the officer's body can rarely be seen in these videos and therefore his/her role in the events is *less* salient and viewers are *less* able to ascribe intent to the officers. This argument makes sense on its face: that the issue is a lack of information. But an alternative exists, individuals are taking the perspective of the officer, identifying more with the officer's actions, and subsequently feeling more positive toward the officer. In other words, if one takes the perspective of an authority figure, judgment of how authorities have acted may improve; if one takes the perspective of a citizen, judgment of how citizens were treated may worsen. The perspective from which evidence of the interaction is delivered (i.e., camera perspective) thus creates variations in evaluations of procedural justice. Though, arguably, the judgment of standards and procedures are more likely to share some social consensus about their fairness and justice more broadly than the judgment of an individual interaction and its participants (Tyler & Lind, 2001), viewers of police–citizen interactions may have very different opinions about fairness and justice owing to differences in the social identities of the citizen in the interaction and the manner (i.e., camera perspective) in which the evidence of these interactions is delivered to them. Thus, we investigate how camera POV influences perceptions of procedural justice in police use of force videos directly, in coalition with citizen skin tone, and indirectly through the mechanism of identification. Specifically, we examine how these variables affect two main dimensions of procedural justice: evaluation of police decision-making and evaluation of treatment of

the citizen. Understanding these influences is imperative due to the increasing importance of these videos in shaping public opinion, perceptions of procedural justice within the overall justice system, and legal decision-making, especially given the largely unquestioned view that these videos provide purely objective evidence.

Parsing affordances in videos: Form and content

Videos and their influences have been studied in the field of communication and related disciplines since their inception as a technology. Communication scholars studying videos have long relied on models that dissect communication down into component parts such as source, message, channel, and receiver (e.g., [Lasswell, 1948](#); [Shannon & Weaver, 1949](#)). While theorists across the history of communication scholarship have often disagreed on which component is most worthy of study, most now would agree generally that communication is a dynamic process involving all of these components ([Krcmar, Ewoldsen, & Koerner, 2016](#)). One related line of thought that has received both acclaim and criticism is McLuhan's advancement that "the medium is the message" or, more specifically, that the channel, or medium, is paramount and has the greatest impact, over and above that of the individual messages these media transmit ([McLuhan, 1964](#); [Strate, 2008](#)). From this perspective, media have been conceptualized in different ways. For example, [Meyrowitz \(1993, 1999\)](#) identified media as environments that provide different sensory information that shapes communication experiences, media as vessels for content, and media as languages in and of themselves with structure, grammar, and rules. From this and other similar lines of thinking, the subfield of media ecology has developed ([Strate, 2008](#)), which focuses on studying the medium as the meaning-creating environment in which communication occurs. Media, technology, and their structure and form are viewed as more significant in shaping human thought and behavior than any particular content ever could be.

This POV has several perspectives in common with movements toward conceptualizing cognition as embodied, embedded, and extended ([Clark, 2008](#)). These ideas, which often travel together in contemporary models of cognition, stress that cognition is not a modal, in other words, that thought, and the "symbols systems" that may sometimes make up thought, are based in our dynamic, physical interactions with our environments ([Beer, 2007](#); [Clark, 2008](#); [Clark & Chalmers, 1998](#); [Gibson, 1986](#); [Hardy, 2020](#)). By conceptualizing the medium as the environment in which individuals experience and interact with content, based on the medium's rules of structure and grammar, the media ecology approach opens up discussions of how different types of media afford different behaviors, thoughts, and feelings through their ability to extend cognition past the brain/body envelope.

Affordances are the possible behaviors provided to an individual emerging from the interaction of that goal-oriented individual with the environment ([Gibson, 1977, 1986](#)). Gibson's conception of affordances arose from his arguments related to direct perception, or the idea that organisms directly perceive their environments without

the need of filtering that environmental information through symbolic symbol systems or mental representations in order to understand and act in their worlds. In other words, individuals scaffold their behaviors onto their environments; they perceive what is important to their goals, whether ultimate or proximate. Thus, in mediated environments, affordances are perceived and experienced based on user goals and the particular possibilities to achieve those goals, as constrained by the medium's rules, grammar, and structure. For example, if my goal is to select a food product from a menu, the medium of the menu will offer different affordances. A printed menu will offer different affordances than a verbally delivered menu. An image-based menu will offer different affordances than a text-based menu and so on. Yet all afford selection of an item through different means. The means, however, rely on the type and extent of cognition that is afforded by the medium *and* its content.

Thus, arguments of direct perception and affordances (Gibson, 1977, 1986) laid the framework for theorists to reconsider where the boundaries of cognition actually lie. Many consider the body/brain envelope to be the sole domain of cognition; but Clark and Chalmers (1998) proposed that under certain types of circumstances, like doing a math problem on paper, for example, cognition is performed in the world: "the individual brain performs some operations, while others are delegated to manipulations of external media" (p. 8). This is, of course, a very similar idea to one within the realm of media ecology. Namely, that the structure and form of media shape human thought and behavior. The difference lies in whether and how the medium is considered to be part of the ongoing cognition. In other words, media structure and form afford different types of thought and behavior more readily, especially forms of extended cognition.

Several efforts to discuss media as providing means of extended cognition exist. Some focus on distributed mind and knowledge of the web (Smart, 2012, 2017). Others focus on how different media afford greater inclusion of bodily interactions with the environment into the cognition process (i.e., embodied cognition; see Hardy, 2020; Kirsh, 2013; Lang & Bailey, 2015). Certain media, especially those that offer the most immersive capacities, allow for extended cognition, even if only briefly, through these technologies that enable embodied and embedded thinking (Kirsh, 2013). The criteria that move an object, medium, or technology past affording embodied cognition into the realm of affording extended cognition are first, that across the cognitive activity, that the object, medium, technology be consistently and reliably available to cognitive operations and second, be automatically endorsed as true and/or real (Clark & Chalmers, 1998). Thus, media candidates for cognitive extension likely provide (a) dynamic interaction, (b) cues that align across modalities that allow the brain-body-medium coupling more easily, (c) cues that appeal to automatic motivations, and (d) feedback that supports credibility and/or fidelity in some form. The next section of this paper examines BWC videos from this perspective in order to determine their capacity as media to afford extended cognition

through their particular characteristics, and what implications that likely has for evaluative outcomes.

BWC video affordances, extended cognition, and procedural justice judgments

BWC videos provide many possible affordances, which of course depend on the goals of the viewer. They provide dynamic, visual, and audio recordings of citizen–police interactions. They also offer the potential for delivery of content that contains cues that appeal to automatic motivations such as threat, violence, and death (Bradley *et al.*, 2001; Lang & Bailey, 2015). But, potentially most importantly, BWC videos are media that have the potential to provide cues regarding the truth and/or fidelity of the content, such as perspective shots and shaky camera that when used in film are intended to help viewers “become part of the scene, seeing through the eyes of an implied or actual character” (Lombard & Ditton, 1997, p. 14).

Camera perspective of mediated experiences can facilitate the way an experience is interpreted and is an important factor in relating to and identifying with the characters portrayed (Klatzky, 1998; Meyrowitz, 1986; Vogeley & Fink, 2003; Wilson, 1993; Zettl, 1990). As one of many paraproxemic variables, camera perspective helps the viewer relate to and interpret mediated visual experiences (Meyrowitz, 1986). By revealing important information about interactions between characters, like distances between and alignments of characters, camera perspective helps the viewer interpret complex social relationships more automatically. Camera perspectives range from objective viewpoint (i.e., looking at something) to subjective POV, which takes on “a bias of looking” and “comments on the event” (Zettl, 1990, p. 228). These terms overlap largely with the more commonly used first-person and third-person POV.

An objective viewpoint, or third-person POV, allows a viewer to maintain “the role of a detached observer” (Meyrowitz, 1986, p. 259). By contrast, first-person POV (e.g., BWC) means that the subjective, multimodal experiential space around one’s body is centralized (Klatzky, 1998) in the mediated experience, allowing for a viewer to form an egocentric reference frame (Vogeley & Fink, 2003). Zettl argues that this type of subjective camera technique allows the viewer to “assume the role of an onscreen character, substituting for the performer’s eyes and actions” with the media goal of having the viewer “participate in the action, even if it is merely illusory.” (Zettl, 1990, p. 232).

Zettl (1990) notes, however, that the illusion of becoming a participant in the event depends on the motivation of the viewer to participate in the action. The three strongest motivating factors are (a) Strong delineation of sides to support (i.e., protagonist vs. antagonist); (b) Highly dangerous and arousing situations being portrayed; and (c) Curiosity in the event and what led to it. Policing videos, both onlooker and BWC, capture events that present all of these motivating factors for viewers. They often portray violent interactions that arouse curiosity in viewers due

to the biological relevance of violence and threat in general (Bradley *et al.*, 2001) as well as curiosity in the social and political antecedents and consequences of the events themselves. Further, as the videos often portray violent altercations, they contain strong “sides” delineations with which viewers may identify.

Thus, both BWC and onlooker videos of police–citizen interactions, due to their mediated characteristics, provide dynamic interaction with multi-modality cues that appeal to automatic motivations. However, because BWC videos also present first-person perspective shots due to how they must be collected (i.e., worn on the officer’s body), BWC videos are better media candidates for cognitive extension. In other words, BWC videos are more likely to allow viewers to “think in the medium.” In this case, cognitive extension has a better possibility of providing the mediated affordance of greater perspective alignment with the officer, which would be apparent in procedural justice judgments, specifically more favorable evaluations of the officer’s treatment of the citizen and overall decision-making. Thus, we expect:

H1: (a) participants will evaluate police decision-making more positively when POV is BWC compared to onlooker and (b) participants will evaluate treatment of citizen less negatively when POV is BWC compared to onlooker.

However, the perspectives that viewers take in order to make procedural justice judgments may have as much to do with perceptions of social identity that viewers ascribe to the citizens in the videos as it has to do with camera perspective. Indeed, some empirical data suggest that POV only works to exacerbate existing perspective taking and identification due to other social identity factors like gender (e.g., Ferchaud & Sanders, 2018; Lim & Reeves, 2009). For this reason, examining video content factors that are highly likely to influence these judgments is also imperative. Thus, we turn to issues of race in these and other media.

Race inequality in police interactions, media portrayals, and behavioral culpability

In addition to and in interaction with POV, interpretation of BWC and onlooker video footage may be affected by intergroup processes, such as those described in social identity theory (SIT), and implicit racial bias (a nonconscious relatively automatic response to outgroup members. SIT (Tajfel & Turner, 1986) provides insight into how viewers may perceive police use of force videos based on a citizen’s skin color and their own social identity. The main tenet of SIT is that identification with social ingroups (i.e., the groups to which we perceive that we belong) negatively affects evaluation of members of social outgroups (i.e., the groups to which we perceive that we do not belong). SIT maintains that personal self-esteem is tied to the perceived status and superiority of the ingroup. Thus, individuals are motivated to favor the ingroup while ascribing negative attributes to outgroups.

The way that intergroup bias manifests is affected by stereotypes that are transmitted through and perpetuated by the media (Roberts & Rizzo, 2020). Pertinent to

this research, race-based stereotypes of Black people as criminal and violent (Allport & Postman, 1947; Eberhardt *et al.*, 2004) are reinforced and maintained by entertainment and news media (Dixon, 2008a, 2008b; Dixon & Azocar, 2007; Dixon & Linz, 2000; Gilliam & Iyengar, 2000; Gorham, 2006; Mastro, 2015; Mastro *et al.*, 2009; Oliver, 2003; Thien & Lee, 2015; Vaes *et al.*, 2019). For example, Black people are overrepresented as lawbreakers on local television news (Colburn & Melander, 2018; Dixon & Linz, 2000) while White people are overrepresented as victims (Dixon, 2017).

When these stereotypes are incorporated into mental representation of social groups, the foundation for implicit bias is formed (Devine, 1989). Stereotypical beliefs are automatically activated in response to cues that make social groups salient. Dasgupta (2004) posits that implicit attitudes about outgroups are shaped by the desire to maintain self-esteem (consistent with SIT) and “a tendency to prefer groups valued by the mainstream culture as a confirmation of the socio-political order in society” (p. 163). In other words, implicit bias reflects existing social hierarchies and functions to maintain them through culturally held stereotypes that influence behavior (Dasgupta, 2004). This is very apparent in the criminal justice system in the United States. According to Anderson (1990), stereotypes about criminality perpetuate a “cycle of oppression” in which police racially profile, stop, question, and arrest Black men, which results in a criminal record that “verifies their deviant status they next time they are arbitrarily stopped” (Anderson, 1990, p. 184).

Further, according to systems justification theory (Jost, Banaji, & Nosek, 2004), implicit bias may function to legitimize existing social hierarchies at the expense of personal and group interest. Thus, Dasgupta (2004) posits two independent routes by which implicit bias manifests. The first is consistent with SIT, described above, and functions to protect self-esteem through identification with and preference for one’s ingroup. The second is consistent with a systems justification approach and functions to maintain social hierarchies through the relative value that mainstream society imposes upon various social groups. Due to the pervasiveness of implicit bias perpetuated in society and through the media, implicit biases toward one’s own group may be exhibited by members of socially disadvantaged groups (Dasgupta, 2004).

Thus, pervasive racial stereotypes and implicit bias affect the way that individuals interpret, recall, and act upon information about members of socially marginalized groups (Correll *et al.*, 2002; Devine, 1989; Eberhardt *et al.*, 2004; Oliver, 1999; Payne, 2001). These stereotypes are activated by phenotypic characteristics that are commonly assumed to be associated with race, such as skin color (Kahn & Davies, 2011). For example, news viewing is associated with harsher culpability for Black, compared to White, suspects, greater belief in stereotypes of Black people as violent (Dixon, 2008a, 2008b), decreased belief that Black people face structural limitations to success, and greater support for the death penalty (Dixon & Azocar, 2007). Additionally, when asked to reconstruct photos of individuals featured in crime news stories, participants are more likely to choose Afrocentric, compared to

Eurocentric, features (Oliver *et al.*, 2004) and to mistakenly identify a Black individual as a suspect in a crime story (Oliver, 1999). Considering this, we expect:

H2: (a) participants will evaluate police decision-making more positively when the citizen in the video has dark skin compared to light skin and (b) participants will evaluate treatment of citizen less negatively when the citizen in the video has dark skin compared to light skin.

Additionally, considering the long history of racial disparities in policing, the role of racial bias in perceived culpability, and the impact of POV on cognitive extension and perspective-taking, we ask if POV will interact with the skin color of the citizen in the video to affect evaluation of police use of force videos:

RQ1: Will POV influence racial disparity in evaluation of police decision-making and treatment of citizens?

Identification as a mechanism

Identification with the characters in a mediated experience has been discussed previously as a “mechanism through which audience members experience reception and interpretation of the text [medium] from the inside, as if the events were happening to them” (Cohen, 2001, p. 245). This is quite important as this experience may translate into more personal and internalized feelings and attitudes toward individuals and events portrayed on screen. Cohen (2001) defines identification as a fleeting, intermittent imaginative process that varies in intensity and leads a viewer to assume the identity, social role, and goals of a mediated character to some degree.

Although the examination of identification as a mechanism underlying attitudes toward procedural justice in the context of police use force videos is novel, identification has been shown to mediate the relationship between exposure to other violent media content (video games) and social attitudes and behaviors—such as masculine beliefs (Gabbadini *et al.*, 2016) and aggressive affect (Lin, 2013). Additionally, although POV affects identification to influence social and psychological outcomes (Krcmar & Farrar, 2008), some research indicates that this relationship can be dependent upon other factors like ingroup similarity with the depicted character (Ferchaud & Sanders, 2018) or selection of the depicted character (Lim & Reeves, 2009). Thus, we expect POV of the video to interact with skin color of the citizen to influence identification with the individuals depicted in the video. Furthermore, we expect identification to serve as the mechanism by which audience attitudes toward procedural justice are affected, as we argue that POV is affording cognitive extension, or thinking within the medium and its content. This cognition extension allows for the identification and perspective-taking that is responsible for altering procedural justice outcomes. Specifically, we predict that identification will mediate the relationship between the interaction of POV and citizen skin color on the evaluation of police decision-making and treatment of the citizen. However, because the

BWC positions the viewer more directly in the first-person perspective of the officer while the onlooker perspective provides a more neutral third-person perspective (rather than perspective of the citizen—or the other “side” a viewer could take), we posit two independent paths by which procedural justice perceptions are affected:

H3: Identification with the officer will mediate the relationship between POV, citizen skin color, and evaluation of police decision-making.

H4: Identification with the citizen will mediate the relationship between POV, citizen skin color, and evaluation of treatment of the citizen.

Method

Experimental design

Each participant watched eight videos. Half of the videos were recorded from the BWC perspective; half were from an onlooker perspective (i.e., surveillance camera, cell phone video). Half of the videos portrayed an officer-citizen encounter in which the citizen was either light-skin toned (i.e., “White”) or dark-skin toned (i.e., “Black”). These variables were fully crossed, and two videos were used in each of the combinations of manipulations to increase generalizability of the results to the type of video rather than the circumstances presented in one particular video. Thus, a 2 (skin color of the citizen: light, dark) \times 2 (POV: body-worn, onlooker) \times 2 (repetition of video) within-subjects design was used.

Stimuli

Videos were taken from publicly available videos of police use of force posted on social media sites (e.g., YouTube). The videos displayed shootings and physical beatings of citizens by police officers during apprehension that resulted in fatality of the citizen. The alleged crimes of the suspects, other than resisting arrest (e.g., trying to run or move), were removed from videos. To control for any perceptions of wrongdoing that may have systematically varied about the citizens in the videos, participants were asked to rate the appropriateness of the citizens’ behaviors. These ratings were used as a control variable. The videos were all edited to be approximately 30 seconds in length to mitigate influences of time spent viewing on outcomes. All officers and citizens were male. All officers were of light skin tone. All videos were shown to participants in color and without the accompanying audio to remove unequal presence of any confounding factors such as verbal abuse, disrespect, profanity, etc., known to influence perceptions of procedural justice (Makin *et al.*, 2019; Patton *et al.*, 2017; Terrill, 2005). We considered the removal of the audio carefully. Though it decreases the generalizability of the results to all videos as they would be experienced typically, we were mindful that these factors in the audio channel, which were present in some of our videos but not all, would disproportionately influence perceptions of procedural justice factors (evaluation of police

decision-making and citizen treatment) in certain cells of the manipulation but not others. We were also mindful that our key manipulations were visual, and in order to isolate the influences of these manipulations and maximize control of message heterogeneity (Slater, Peter, & Valkenberg, 2015), we felt audio removal in this initial test was appropriate. A link to the videos is available in the online supplement.

Dependent variables

Evaluation of police decision-making

This construct was measured by averaging two items ($M = 2.47$, $SD = 1.65$; Pearson $r = .84$, $p < .001$). Participants rated (a) belief the officer(s) followed proper procedures and (b) belief use of force was justified on a 7-point scale anchored by “not at all” and “very.” Higher scores indicate greater belief officers acted appropriately.

Evaluation of treatment of the citizen

This construct was also measured by weighted averaging of two items ($M = 4.73$, $SD = 1.60$; Pearson $r = .45$, $p < .001$). Participants rated (a) how likely it would be for the citizen (or citizen’s family) to file a complaint about the incident on a 7-point scale anchored by “not at all likely” and “very likely” and (b) how the officer(s) should be disciplined on a 9-point interval scale from “none” to “criminal charges.” The second item was weighted by seven ninths as standardization. Higher scores indicate greater belief the citizen was mistreated.

Mediator variables

Identification with officer

Participants rated identification with the officer on a 7-point single-item (how much do you relate to/identify with the officer(s) in this video?) anchored by “not at all” and “very much” ($M = 2.06$, $SD = 1.57$). Higher scores indicate greater identification.

Identification with citizen

Participants rated identification with the citizen on a 7-point single-item (how much do you relate to/identify with the citizen in this video?) anchored by “not at all” and “very much” ($M = 2.20$, $SD = 1.95$). Higher scores indicate greater identification.

Control variables

Demographics

Participants reported their age, race, gender, political ideology measured as a continuous variable on a 1 “very conservative” to 5 “very liberal” scale ($M = 3.28$, $SD = 1.00$) and party affiliation as a categorical response (Democrat, Republican, Independent or other).

Belief citizen behaved appropriately

Participants rated belief the citizen behaved appropriately on a 7-point single-item (do you believe the citizen in the video behaved appropriately?) anchored by “not at all” and “very” ($M = 3.66$, $SD = 1.89$). Higher scores indicate greater belief that the citizen behaved appropriately.

Attitudes about institutionalized racial discrimination

Attitudes about institutionalized racial discrimination of the viewer were measured using the *Institutionalized Racial Discrimination* 7-item subscale originally created by (Neville et al., 2000). Items inquired about viewers' attitudes toward social policies and circumstances regarding race relations in the United States using 6-point Likert-type agreement scales in response to statements. For example, “Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.” Responses to these items were summed for analysis, ($M = 18.78$, $SD = 6.39$, $\alpha = .71$), as was done in Neville et al. (2000). Higher scores indicate lower degrees of belief institutional racism exists in the U.S. Exploratory factor analysis (EFA) was further conducted; parallel analysis with scree plot and acceptable model fit (RMSR = .07, RMSEA = .07, CFI = .93) suggest that treating the measures as one factor is advisable.

Sample

Participants ($N = 96$) were undergraduate students taking communication, journalism, media production, and criminal justice classes at a public university in the Northwestern United States. Participation in the experiment was voluntary and compensated with extra credit. The sample consisted of 58.33% ($n = 56$) male and 41.67% ($n = 40$) female participants. The average age was 20.61 ($SD = 1.94$). Majority of the participants identified as White/Caucasian ($n = 60$, 62.50%), fifteen as Hispanic (15.62%), eight as Asian or Pacific Islander (8.33%), four as another race (4.17%), and nine chose not to answer (9.37%). No participants reported identifying as Black/African American. Among the participants, 44.79% ($n = 43$) considered themselves as Democrats, 22.92% ($n = 22$) as Republicans, and 30.21% ($n = 29$) as independents or other.

Procedure

Participants completed the IRB-approved protocol individually. Upon arrival to the lab, informed consent was obtained, and participants were seated in a reclining chair across from a large screen TV. Psychophysiological sensors were affixed, though these data are not reported here. The procedure was explained in detail and any questions were answered. Participants viewed each video presented in one of two orders: a random order and its inverse. After each, they were asked to rate the video on the specified identification and evaluation items, and other items regarding emotional response, information sharing, and information-seeking which were not

reported here. The items of each of the question sets were randomized within-group: identification and evaluation of the citizen and officer, emotional response, information sharing, and information seeking. *MediaLab* software (Jarvis, 2014) was used to deliver the experimental stimuli and questionnaires. After participants completed viewing and rating each video, they were asked to complete some political affiliation and information-seeking questions as well as racial attitudes and demographics questions. Then, participants were debriefed, thanked, and dismissed. The entire procedure lasted approximately 60 minutes.

Data analysis

We used statistical analysis in the multilevel modeling (MLM) framework to analyze the repeated-measured data for its strength in handling unobserved individual differences. The hierarchical structure of the data is 2 (skin color of the citizen: light, dark) \times 2 (POV of the camera: body-worn, onlooker) \times 2 (repetition of video) repeated-measures nested within each individual participant. In other words, the first-level units of analysis are the measures of each video ($n = 96 \times 8 = 768$) nested within individual participants, the second-level units of analysis ($N = 96$). Multilevel linear regression with random intercept was used to test the main effects of camera type (H1) and skin color (H2) and its interaction (H3). The mediation of identification was also tested within the MLM framework with both independent variables and mediators being the first-level measures (i.e., 1–1–1 mediation). As our independent variables were categorical, we followed recommendations to conduct the analysis in the generalized multilevel structural equation modeling (GMSEM) framework (Preacher, Zyphur, & Zhang, 2010). Therefore, two separate random effects on the mediator and on the dependent variable were included and the covariance between the two was controlled. The robustness of the analysis is further examined by bootstrapping with 5,000 repetitions.

Results

Main effects of POV and skin tone

H1 posited that viewers would report (a) significantly more positive evaluations of officer decision-making and (b) significantly less negative evaluation of treatment of citizens when responding to BWC rather than onlooker camera recorded videos. Controlling for age, race, gender, political ideology, institutional racism, and perceived appropriateness of citizens' behavior in videos, this hypothesis was not supported ($p > .05$).

H2 posited similar main effects when viewers were responding to videos featuring dark rather than light-skinned citizens. Controlling for the same variables, we found that viewers reported (a) significantly more positive evaluations of police decision-making ($B = .40, p < .001, SE = .12$) and (b) significantly fewer negative

evaluations of treatment of citizens when responding to videos featuring dark-skinned citizens ($B = -.70, p < .001, SE = .12$). H2 was supported.

Among the controlling variables, perceived appropriateness of citizen behaviors predicted significantly less positive evaluation of police decision-making ($B = -.47, p < .001, SE = .03$) and more negative evaluations of treatment of citizens ($B = .41, p < .001, SE = .03$) as expected. Being politically liberal was a significant factor predicting fewer positive evaluations of police decision-making ($B = -.27, p < .01, SE = .09$) but a nonsignificant factor for evaluations of citizen treatment ($p > .05$). Men reported significantly more negative evaluations of treatment of citizens than women ($B = .40, p < .05, SE = .19$), but gender was not a significant factor for evaluations of police decision-making ($p > .05$). Institutional racism and race were not significant factors for the two dependent variables. See details of the models in [Table 1](#).

Interaction effects of POV and skin tone

RQ1 is an exploration of the interaction effects of camera POV (BWC vs. onlooker) and the skin tone of the citizens. The results showed significant positive interaction effects on viewers' evaluation of police decision-making ($B = .58, p < .01, SE = .19$) and significant negative effects on evaluation of treatment of citizens ($B = -.75, p < .001, SE = .19$). See details of the models in [Table 1](#). To unpack the interaction effects, we conducted a post hoc pairwise comparison with Bonferroni-Holm correction for the four types of videos ([Table 2](#)). Viewers evaluated BWC-dark skin citizen videos most positively for police decision-making ($M = 2.86$) and least negatively for treatment of citizens ($M = 4.01$). However, viewers evaluated BWC-light skin citizen videos least positively for police decision-making ($M = 2.16$) and most negatively for treatment of citizens ($M = 5.09$). Ratings of onlooker videos for evaluation of police decision-making (light skin $M = 2.46$, dark skin $M = 2.57$) and evaluation of treatment of citizen (light skin $M = 4.75$, dark skin $M = 4.42$) fell in the middle. In other words, compared to onlooker videos, the BWC POV amplified viewers' racial biases. See [Figure 1](#).

Mediation effects of identification

H3 and H4 posited that the main and interaction effects of POV and skin tone on evaluations of police decision-making and treatment of citizens are mediated by identification with police and with citizens. For evaluation of police decision-making, the results showed that identification with police was a full mediator, namely, after including the mediating variable, the direct effects were no longer significant. Among the lower-level effects, 74.12% of the total interaction effects of BWC and dark skin tone ($B = .81$) on evaluation of police decision-making was explained by the indirect effects ($B = .60$) of identification with police. See [Table 3](#) for model coefficients. Therefore, H3 was supported.

Table 1 Main effects and interactions effects of POV and skin tone

Predictors	Evaluation of police decision-making				Evaluation of treatment of citizens			
	Main effects		Interaction		Main effects		Interaction	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Intercept	6.53 ^{***}	1.01	6.55 ^{***}	1.02	2.84 [*]	1.27	2.80 [*]	1.20
Age	-.06	.04	-.06	.04	.01	.05	.01	.04
Caucasian/White	-.01	.16	-.01	.16	-.14	.20	-.14	.17
Male	.01	.16	.02	.16	.40 [*]	.19	.39 [*]	.17
Ideology (liberal)	-.27 ^{**}	.09	-.28 ^{**}	.09	.09	.11	.10	.10
Institutional racism	-.02	.01	-.02	.01	.00	.02	-.00	.02
Perceived citizen appropriateness	-.47 ^{***}	.03	-.45 ^{***}	.03	.41 ^{***}	.03	.38 ^{***}	.03
Dark skin	.40 ^{***}	.10	.11	.14	-.70 ^{***}	.12	-.32 [*]	.13
BWC	-.01	.10	-.30 [*]	.14	-.03	.12	.34 ^{**}	.14
BWC × Dark skin			.58 ^{**}	.19			-.75 ^{***}	.19
Random effects								
Within-subject variance	1.59		1.57		1.60		1.57	
Between-subject variance	.24		.25		.33		.33	
Intraclass correlation (ICC)	.13		.14		.17		.17	
Marginal <i>R</i> ² /Conditional <i>R</i> ²	.34/.43		.35/.44		.28/.40		.29/.41	

p* < .05. *p* < .01. ****p* < .001.

In comparison, identification with citizen was a partial mediator for evaluation of treatment of citizens (i.e., the direct effects were reduced but remained significant). Among the lower-level effects, 17.0% of the total interaction effects of BWC and dark skin tone ($B = -.86$) on evaluations of treatment of citizens was explained by the indirect effects of identification with citizen ($B = -.15$). Therefore, H4 was partially supported. (See path diagrams of H3 & H4 in Supporting Information.)

Discussion

The present study explored the relationship between media form (POV) and content (skin color of citizens) and their affordances on evaluations of procedural justice (i.e., police decision-making and treatment of the citizen) in response to police use of force videos. Though we expected that the BWC perspective would be associated with more positive evaluations of the quality of police decision-making

Table 2 Post hoc pairwise comparison

Evaluation of police decision-making						
Camera type	Skin tone	M (CI)	Within-POV	Within-skin tone	Cross-categories	
Onlooker	Light	2.46 (2.11–2.82)	-.11	.29	.41*	
	Dark	2.57 (2.22–2.93)				
BWC	Light	2.16 (1.81–2.52)	-.69***	-.28		
	Dark	2.86 (2.50–3.21)				

Evaluation of treatment of citizen						
Camera type	Skin tone	M (CI)	Within-POV	Within-skin tone	Cross-categories	
Onlooker	Light	4.75 (4.37–5.12)	.32*	-.34*	-.67***	
	Dark	4.42 (5.04–5.80)				
BWC	Light	5.09 (4.71–5.47)	1.07***	.40***		
	Dark	4.01 (3.64–4.39)				

Note: Estimated mean differences * $p < .05$; ** $p < .01$; *** $p < .001$.

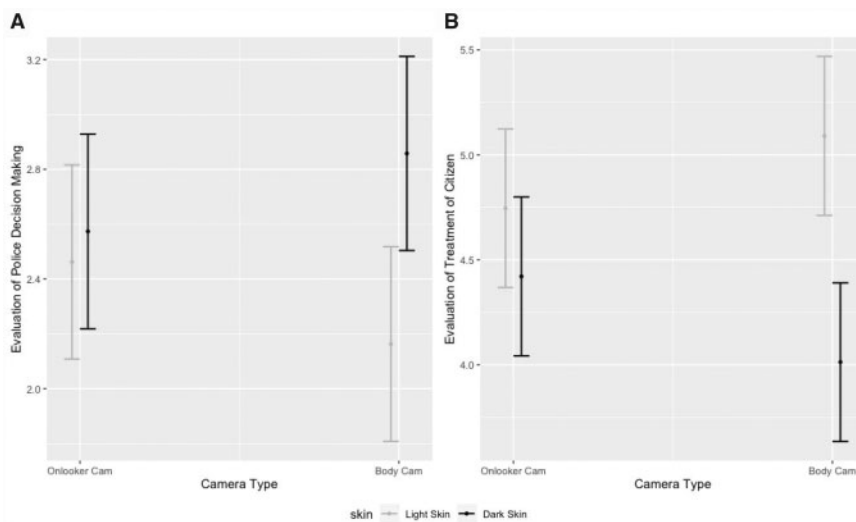


Figure 1 Marginal effects of POV and skin tone on (a) evaluation of police decision-making, (b) evaluation of treatment of citizen.

and more negative evaluations of the treatment of the citizen, we found no such main effects. However, there were main effects of skin tone of the citizen. Specifically, in response to police use of force videos in which the citizen had a

Table 3 Multilevel-mediated moderation by identification with citizens/officers

Predictors	Evaluation of police decision-making				Evaluation of treatment of citizens			
	Indirect effects on MV		Direct effects on DV		Indirect effects on MV		Direct effects on DV	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Intercept			3.15***	.76			1.60	1.06
Age			.01	.27			.00	.04
Caucasian/White			.02	.1			-.09	.20
Male			-.03	.11			.39*	.19
Ideology (liberal)			-.19**	.07			.17*	.09
Institutional racism			.00	.01			.01	.02
Perceived citizen appropriateness			-.29***	.02			.34***	.03
Dark skin	-.40**	.12	.15	.10	.40***	.11	-.32*	.13
BWC	-.26*	.12	-.15	.10	.27*	.11	.35**	.13
BWC × Dark skin	.94***	.17	.21	.15	-.64***	.15	-.72***	.22
MV: ID w/police			.64***	.04				
MV: ID w/citizen							.23***	.10
Random effects								
Between-subject variance	1.03		.18		1.14		.41	
Within-subject variance	1.37		1.04		1.10		1.52	
Covariance of between-subject random effects	-.28				-.33			

p* < .05. *p* < .01. ****p* < .001.

Standard Errors are results of bootstrapping for *n* = 5,000 times of repetition.

darker skin tone, participants evaluated police decision-making as more appropriate and justified and evaluated treatment of the citizen as less negative, as predicted. Further, an interaction revealed that the highest evaluations of procedural justice occurred when police use of force videos was viewed from the officer’s perspective (i.e., BWC) and the citizen had dark skin. The lowest evaluations of procedural justice occurred in response to police use of force videos in which the citizen had light skin and the POV was BWC.

The finding that skin color affected viewers’ evaluations of procedural justice in response to police use of force videos is consistent with the widely documented and pervasive racial bias that occurs throughout the criminal justice system (see [Kovera, 2019](#)). These findings add to that body of work by indicating racial bias of viewers in response to video evidence that is largely considered to be “objective.”

Furthermore, these evaluations are in line with stereotypes of Black citizens transmitted through media (Dixon, 2008a, 2008b; Dixon & Azocar, 2007; Dixon & Linz, 2000; Gilliam & Iyengar, 2000; Gorham, 2006; Mastro, 2015; Mastro *et al.*, 2009; Oliver, 2003; Thien & Lee, 2015; Vaes *et al.*, 2019).

The interaction of camera POV and citizens' skin color is particularly revealing. Rather than ameliorating racial bias, as would be expected in response to watching "objective" video evidence, we found that the BWC perspective exacerbated racial disparities regarding evaluations of procedural justice. Citizens with dark-skin were regarded even more negatively and light-skinned citizens even more positively when the camera POV was from the officer perspective. Thus, the systematic bias against persons of color in criminal justice contexts is pervasive even in the camera evidence meant very explicitly to help relieve issues of implicit racial bias in policing. The onlooker perspective comes closer to creating racial parity in evaluation suggesting that this view may provide a more neutral perspective of police use of force interactions. However, CCTV, surveillance, and onlooker personal device videos are often not available to offer this perspective.

As expected, identification mediated this relationship such that POV and skin tone of the citizen influences on evaluation of the officer's actions were entirely mediated by how much one identified with the officer. It is important to note that viewers did not highly identify and/or want to report high levels of identification with the officers in these videos, likely because the acts in them were quite brutal and resulted in the death of the citizens. However, the differences in perspective-taking afforded by skin tone and POV did contribute to varying identification reports, which ultimately accounted for all variance in evaluations of officer decision-making.

Identification with the citizen only partially mediated the relationship between POV and skin tone and evaluations of treatment of the citizen. Again, viewers did not highly identify and/or want to report high levels of identification with the citizens in these videos. This may be because viewers do not want to identify with alleged criminal suspects in police interaction contexts. It is interesting that the relationship is only partially mediated with POV and skin tone of the citizen still having direct effects on evaluations of the citizen's mistreatment. It is because the POV was third-person onlooker, not from the viewpoint of the citizen himself, a partial mediation makes sense. If the camera POV was from the citizen's perspective, a full mediation might ensue.

Theoretical and practical implications

The lack of main effects of POV on evaluations of actual behavior and treatment are not necessarily unsurprising. Though preliminary studies have shown that the camera perspective of BWCs (i.e., first-person officer), leads viewers to judge officer behaviors as more justified and less intentional (Jones *et al.*, 2019; Turner *et al.*, 2019), these studies did not manipulate race cues. This highlights that many

factors come into play in the evaluation of these socially complex issues. Further, the direct effects of POV and its interaction with skin tone of the citizen on identification with officer and citizen are in line with previous work examining how POV contributes to identification (Ferchaud & Sanders, 2018; Krmar & Farrar, 2008; Lim & Reeves, 2009), which may affect evaluations of behaviors, as evidenced here. This pattern of findings also supports the notion that POV affords cognitive extension (Clark, 2008; Clark & Chalmers, 1998; Kirsh, 2013) by allowing viewers' cognitive functions to dynamically couple with the medium more readily, thus allowing them to think as the officer, take the officer's perspective, and therefore, evaluate the officer's actions as more appropriate and justified. Paired with the racial biases that pervade the social fabric surrounding policing and criminal justice, this allows implicit bias-driven racism to persist more readily, through unconscious and biasing cognitive processes that manifest in response to so-called "objective" evidence.

Thus, the effects of skin color of the citizen cannot be over-emphasized. Specifically, when the citizen had dark skin, participants were more likely to evaluate the officer's decision-making as more justified. In contrast, when the citizen had light skin, participants were more likely to evaluate the treatment of the citizen negatively. These main effects of skin color indicate social cognitive processes consistent with SIT (Tajfel & Turner, 1986). Further, these findings are in line with implicit racial bias and a large body of communication research indicating media influence on stereotypes (Dixon, 2008a, 2008b; Dixon & Azocar, 2007; Dixon & Linz, 2000; Gilliam & Iyengar, 2000; Gorham, 2006; Mastro, 2015; Mastro *et al.*, 2009; Oliver, 2003; Thien & Lee, 2015). Informed by the reasoning of Dasgupta (2004), these findings demonstrate how interpretation of video evidence reflects the "tendency to prefer groups valued by the mainstream culture as a confirmation of the sociopolitical order in society" (p. 163). Unfortunately, though these videos are largely considered to be the most objective evidence we can muster, the way we are collecting this evidence is likely playing a role in exacerbating racial biases already present.

This means, practically, these findings have important implications for how justice is perceived in videos shared virally as well as those videos used as evidence in legal proceedings. McLuhan's purported quote, "we shape our tools and thereafter they shape us" (Culkin, 1967, p. 52) is particularly applicable in these circumstances. The media form characteristic POV interacts with important content relevant to social identity factors, like race of the citizen, to influence how individuals make judgments about violent interactions between police and citizens. To put a fine point on the findings presented here: the camera perspective of the BWCs heralded as a panacea for racial inequities in policing exacerbates racial bias such that officers are found to be more justified in their use of force in videos that present very brutal and violent interactions. BWC videos have been presented as a leveling factor that will present the "facts" of an interaction between citizens and officers. While they may record events and provide important information to be considered, they record events from a particular perspective to which we, as human beings, are naturally bound to respond. Filmmakers use spatial language and parapraxemics to tell

stories, develop characters and relationships and evoke emotions in videos we view for entertainment all the time. They use the same types of information that help us make meaning in our own physical environments and relationships to help develop these stories. In this case, the necessity of having the video be taken from the officer perspective so it can be consistently filmed across citizen interactions is affording a type of cognitive extension that is allowing viewers to identify and think as the officer, automatically biasing their judgments in favor of the officer. The use of these videos in legal proceedings as evidence, therefore, should be considered carefully and in full view of this possibility.

Limitations and future research

The videos used here were real videos taken from social media to aid in ecological validity; however, the videos did vary in several ways. We used two exemplars in each video category to help alleviate this issue and be able to generalize to the similarities in the video, but future work should examine a much wider range of videos. Future work also may want to consider how viewers perceived the race of citizens in the videos. Here, we did not check to see what race viewers perceived the citizens to be, but these perceptions likely play a role in these evaluations.

Further, videos with accompanying audio would be highly useful in future investigations. Here, we removed the audio to remove the sources of variance associated with procedural justice differences in verbal exchanges between officers and citizens of different types (Makin *et al.*, 2019; Patton *et al.*, 2017; Terrill, 2005). Manipulating these differences may shine a light on whether and if social circumstances of the interactions subsume some of the variance created by POV and citizen race in video evaluations.

Also of great importance are the sample limitations. The participants were all undergraduate students, which may limit the generalizability of these findings to other populations. Though, due to the within-subjects design, we can say that certain types of videos are more likely to create particular evaluations than others; important intervening factors may be present that could not be captured in this sample. Future work should seek to replicate these findings in other populations (e.g., more racially and socially diverse groups, more and less politically partisan groups, etc.), particularly because social identity of the viewer may be an important factor contributing to evaluative outcomes of police use of force videos against citizens of different skin tones. Although racial/ethnic identity was statistically controlled for in this research, more racial/ethnic diversity in the sample would have allowed for between-group comparisons. Thus, although Dasgupta (2004) posits two routes to maintain implicit bias, group membership/ingroup preference and systems justification/social hierarchy, we were largely limited to investigating the former due to the characteristics of our convenience sample. We believe this is an important and essential first step to investigating the role of implicit bias on the interpretation of BWC videos and that the conclusions drawn from this research have

important and urgent implications for both theory, as discussed above, and policy, especially given the racial bias in jury selection procedures often failing to include African-American/Black citizens (Kovera, 2019).

Beyond replications and extensions of this particular work, the findings presented here also have implications for other work in the area of media and communication affordances. The conceptualization of media as affordances is not new to communication. Most recently, discussions of mobile media and social media affordances are advancing discussions of how these technologies offer the potential for different communication affordances, such as portability and multimodality (Schrock, 2015) and even collective action and activism (see Leonardi & Vaast, 2017; Sabo, Federici, & Braccini, 2020). This work may add to these discussions regarding how particular types of video form due to camera perspectives influence what is perceived as an affordance in the social mediascape. Particularly horrifying is the finding that exposure to these violent police use of force videos is especially traumatizing for minority viewers (DeVylder, Fedina, & Link, 2020; Tynes et al., 2019). Are these individuals also afforded less self-efficacy and sense of agency when the video form affords their cognitive extension into an officer's perspective?

Conclusions

These findings highlight the importance of considering POV and citizen skin color on audience evaluation of police use-of-force videos. While there were no main effects of BWC and onlooker POV, the interaction with citizen skin color indicates that BWC perspective exacerbates racial bias on perceptions of procedural justice. Further, identification with the police officer fully, and identification with the citizen partially, mediate these relationships. As the use of and body of recommendations for BWC best practices are growing, partially as an attempt to reduce racial bias in policing, a full understanding of how the perspective-taking these videos naturally afford affects outcomes is urgently needed. This research is the first step toward that understanding.

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