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Objectivity is a Myth for You but Not for Me or Police: A Bias Blind Spot for Viewing and Remembering Criminal Events

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Now more than ever, people have access to police footage, yet people still disagree about what some footage depicts. This is not surprising given that research on attention, perception, and memory demonstrates that motivations, biases, and context shape what people see and remember. However, we do not know whether people are attuned to the fact that their understanding and memory of observed criminal encounters may be biased. Moreover, we do not know how people think about laypeople's and police officers' ability to view such events objectively. We examined these beliefs by asking participants to imagine that they themselves, an average American or an average police officer, viewed a criminal event live, with police body-worn camera (BWC) footage or with surveillance footage. Participants provided ratings for each observer's susceptibility to bias. Importantly, we found a bias blind spot (Pronin, Lin, & Ross, 2002) for people's ratings of themselves and—depending on participants' attitudes toward police—police officers. People denied that biases would influence their own and officers' inferences and memory for a criminal encounter, but they did not give the average American the same benefit. Moreover, participants rated officers as being the least biased after they watched their BWC footage, demonstrating that people perceive BWCs to be an extension of what officers see. We explore the implications our results have for policies concerning BWC footage and disagreements that may arise when people assume that they and police are more objective than others.

Keywords: bias blind spot, memory, metacognition, police, policy

With electronic recordings—cell phones, surveillance footage, dash-cam footage, and now body-worn camera (BWC) footage—capturing police encounters, people have more opportunity than ever before to observe and scrutinize police–citizen interactions. Indeed, access to millions of police–citizen interactions online has given people insight into police officers' daily exchanges. A glance at the comments section of a police video online, however, clearly shows that video evidence of an interaction does not eliminate disagreements about what really happened. Such disagreements should not be surprising. We know people's goals (Kunda, 1990), past experiences (Kunst-Wilson & Zajonc, 1980), and emotions (Takarangi & Strange, 2010) can distort encoding, bias interpretations, and affect recollections. Unfortunately, electronic recordings of police encounters are not a cure-all for these visual and memory biases. On the contrary, when people watch an electronic recording, they are susceptible to similar biases that accompany a live, first-hand viewing. Indeed, people's ideologies, past experiences with officers, and training all play a role in shaping interpretations of recorded events (Boivin, Gendron, Faubert, & Poulin, 2017; Granot, Balcetis, Schneider, & Tyler, 2014; Kahan, Hoffman, & Braman, 2009). People even remember BWC footage differently depending on the additional information they are given (Jones, Crozier, & Strange, 2017). What we do not know, however, is the extent to which people believe they, the police, or other observers can put those biases aside when observing criminal events in person or via electronic recordings. We designed a set of scenarios to address that issue.

Although what people *see* is a function of neural impulses that the retina sends to the brain, a number of biases play an important role in shaping what people actually *perceive*. Research shows that people do not process all the stimuli in their visual field (Balcetis, Dunning, & Granot, 2012; Becklen & Cervone, 1983). Rather, studies examining the phenomena of inattentional and change blindness demonstrate that people's expectations and intentions influence the information that people perceive (Chabris, Weinberger, Fontaine, & Simons, 2011; Simons & Levin, 1998; Mack & Rock, 1998; Neisser & Becklen, 1975; Simons, 2000; Simons & Chabris, 1999). Importantly, when people fail to pay attention to stimuli, their comprehension and explanation of an event is necessarily compromised. Applied to the criminal justice setting, we know that electronically recorded criminal interrogations that only

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capture the suspect on video result in people discounting the role of the interrogator. Ultimately, people perceive the interrogation as less coercive and the resulting confession as more voluntary (Landström, Af Hjelmsäter, & Granhag, 2007; Lassiter, & Irvine, 1986; Lassiter, Slaw, Briggs, & Scanlan, 1992). By contrast, people who view camera footage that captures both the detective and suspect in the frame equally perceive the interrogation in a manner similar to people who read a transcript or listen to an audiotape (Lassiter, Ratcliff, Ware, & Irvin, 2006). In sum, people are typically unable to attend to and encode everything as a scene unfolds, and what they do attend to is often regarded as having a more causal role. But are people mindful of the limitations of attention, or attuned to how different camera perspectives may shape perceptions of what they observe in police contexts? Drawing on attention and causal attribution research, a surveillance camera—which captures a third-person perspective—should produce a more complete version of an event than first-person footage captured by a BWC. By contrast, a BWC could lead people to form biased conclusions that either (a) enhance the role of officers as a result of recording solely their perspective, or (b) minimize their role by obstructing the officer from view. Here, then, we were interested in people's metacognitive beliefs about camera perspectives.

It is not just people's attentional lapses that pose problems for accurate understanding. In fact, research has clearly established that people's motivations (Balcetis & Dunning, 2006; Veltkamp, Aarts, & Custers, 2008), expectations (Kok, Brouwer, van Gerven, & de Lange, 2013), and biases (Kahan, 2010) can all lead people to perceive things differently and form disparate conclusions. For example, Granot et al. (2014) showed that people who focused on the police officer in a police–citizen interaction made punishment decisions that were consistent with their preexisting attitudes. That is, when attending to the officer, people who viewed officers as being part of their out-group made harsher punishment decisions than people who viewed officers as being part of their in-group. Moreover, despite the majority of the lay public endorsing the belief that memory functions like a video camera—accurately recording and preserving all we encounter—decades of research demonstrates that the information people remember is malleable and easily distorted (Simons & Chabris, 2011). Indeed, what people learn *after* an event can affect what they remember (Loftus, 2005; Loftus & Palmer, 1974). For example, providing feedback to a traumatic event that focuses on the positive aspects makes people remember the event more positively (Takarangi, Segovia, Dawson, & Strange, 2014; Takarangi & Strange, 2010). Thus, even if a person perceives an encounter accurately, their understanding of that encounter may become distorted over time, and people who initially perceived the encounter from a biased perspective may have those biases reinforced, further distorting their understanding.

Importantly, even trained police officers—who, historically, have been presumed to have superior memory ability (Loftus, 1984; Yarmey & Jones, 1983)—are not immune to visual and memorial biases. Loftus, Levidow, and Duensing (1992) found that police officers are just as susceptible to misleading information as laypeople. More recently, Hope et al. (2016) found that, contrary to lay expectations, stress decreased police officers' ability to accurately recall details about an encounter involving firearms. In fact, research on police-involved shootings demonstrates that perceptual and memory distortions are commonly reported by officers during stressful events (Artwohl, 2002; Honig & Roland, 1998; Klinger, 2006). Other studies demonstrate that officers' racial biases and stereotypes influence their perceptions of objects and decisions to shoot (Correll et al., 2007; Eberhardt, Goff, Purdie, & Davies, 2004; Plant & Peruche, 2005). Again, the extent to which laypeople are aware of such findings and apply them when assessing an officer's understanding of an event is unknown.

We also know little about laypeople's beliefs concerning their own ability to understand and remember events, especially criminal encounters. For example, do people believe that they can put their biases aside to form objective conclusions, or do they fail to account for their biases? There is convincing evidence to suggest that it might be the latter. Indeed, people tend to view themselves as less susceptible to cognitive and motivational biases than others—termed the *bias blind spot*. Pronin and colleagues argue that this bias blind spot occurs because of "introspection illusion" and "naïve realism" (see Pronin, 2009, for a review; Pronin, 2007; Pronin & Kugler, 2007; Pronin, Lin, & Ross, 2002). Briefly, although many biases occur nonconsciously, people tend to rely on their inner thoughts to identify potential bias within themselves, but give weight to others' behavior because this information is more readily available (Tversky & Kahneman, 1973). Thus, this asymmetry of information will likely lead people to believe that other observers will experience more bias when viewing a criminal event. Moreover, the belief that people perceive objects as they exist in reality, naïve realism, will likely lead people to believe that their own inferences and recollections of criminal activities are accurate, whereas others' life experiences and worldviews will result in biased interpretations (Ehrlinger, Gilovich, & Ross, 2005). Would the bias blind spot extend to people's perceptions about their own and others' ability to objectively interpret and remember both live and recorded criminal events? That is one of the questions we address here.

To test our research questions, in two experiments, we provided participants with nine hypothetical scenarios of criminal activities that were captured live (i.e., first-hand), with a first-person recording (i.e., BWC footage), or with a third-person perspective (i.e., surveillance footage). We asked participants to imagine either (a) themselves, (b) an average American,[1] or (c) an average police officer was viewing the event. We predicted that people would demonstrate a bias blind spot, such that they would infer that the average American would be less capable of producing an objective understanding and recollection of the criminal activities than themselves. Because previous research indicates that people believe that trained police officers perform better on memory tasks, we hypothesized that participants would express high belief in their own and officers' ability to objectively remember and understand events, demonstrating no bias blind spot (Loftus, 1984; Yarmey & Jones, 1983). We also included a measure of people's attitudes toward police officers to determine whether people's past experiences with officers would moderate the relationship between ratings of an officer's and the self's susceptibility to biases. Although research on any differences between surveillance and BWC footage is limited,

[1] We asked participants to imagine the average American and average officer to keep language consistent with previous bias blind spot experiments (see, e.g., Pronin et al., 2002).

we predicted that participants would indicate that surveillance footage would provide the least biased account.

Experiment 1

Method

We preregistered our experimental design, hypotheses, and analyses on the Open Science Framework (OSF). Our registration form is available at https://osf.io/2wbrx/.

Design. The design, approved by John Jay College's Human Research Protection Program, conformed to a 3 (person: self, average American, average police officer) × 3 (perspective: live, first-person, and third-person) within-subject design.

Participants. One hundred forty-five Amazon Mechanical Turk (MTurk) workers completed the study for $0.75. MTurk is a crowd-sourcing platform that provides diverse samples, producing more generalizable data (Buhrmester, Kwang, & Gosling, 2011). MTurk workers are also highly attentive and produce data that replicates in-person labs and other online platforms (Firth, Hoffman, & Wilkinson-Ryan, 2017; Hauser & Schwarz, 2016). We excluded participants based on a priori criteria. Specifically, we excluded those who did not pass the instruction checks (27 participants; e.g., they took notes, engaged in other tasks, or talked to others), our three manipulation checks (42 participants; i.e., "What criminal activity took place in the last scenario you read about?"), or the embedded instructional attention check (15 participants; Oppenheimer, Meyvis, & Davidenko, 2009). The final sample consisted of 84 (28 male, 56 female) participants aged 20 to 72 years (M = 41.17, SD = 12.07). In all, 58 identified as White, 13 identified as Black or African American, nine identified as Asian, two identified as Hispanic or Latino, and two identified as Other. Of these participants, one did not finish high school, 32 finished high school, 43 finished college, and eight had graduate training. Participants also had a variety of occupations (see the OSF for a table listing their jobs), with incomes ranging from less than $24,000 to $74,000 and above. Specifically, 23.8% reported an income of less than $24,000, 35.7% reported an income between $24,000 and $49,000, 25% reported an income between $50,000 and $74,000, and 15.5% reported an income greater than $74,000. An a priori G*Power analysis (Faul, Erdfelder, Buchner, & Lang, 2009) for a repeated measures within factors design suggested a required sample of 85 to detect a medium-sized effect (f = 0.17) with 90% power.[2]

Materials. For each person perspective, participants learned about three hypothetical criminal scenarios that they themselves, the average American, and the average police officer witnessed live, with a first-person recording, and with a third-person recording. Our two variables, therefore, created nine scenarios. Participants imagined each scenario and answered questions after each one.

Observer. Participants learned about three criminal activities that differed for each hypothetical observer. In the *self* condition, the crime was a robbery; the *average American* condition described an assault; and the *average police officer* condition described a stabbing (see Appendix). We chose these scenarios so that each crime involved one perpetrator, a weapon, and were somewhat, but not overly, violent. We counterbalanced the order that participants received these three conditions, but the designated crime was always associated with the same observer.

Perspective. For our *perspective* manipulation, we asked participants to imagine that each observer witnessed a criminal event live, with a first-person recording, and with a third-person recording. For the live perspective, participants imagined that a crime had occurred 30 ft. away from the observer. We clarified that 30 ft. was approximately half the distance of a bowling lane or about the length of a yellow school bus. For the first-person and third-person recordings, participants imagined that each observer had a second opportunity to witness the original crime via an electronic recording. For our third-person perspective, participants learned that surveillance footage had captured the crime. For our first-person perspectives, participants learned that the officer was wearing a BWC that captured the event and that the average American and self were wearing a Go-Pro[3] camera that captured the event (for more information about the scenarios, see the OSF at https://osf.io/vz8we/).

Measures.

Inference questions. We formed a composite inference score from five statements about one's ability to understand the criminal event thoroughly, accurately, and objectivity while witnessing the event. For example, participants responded to statements such as "If I'm paying very close attention to the event, I can prevent my worldview from affecting my understanding of the [criminal activity]" and "Other witnesses would draw the same conclusions about the event." Participants responded to each of the statements on a 9-point scale (1 = *strongly disagree*, 5 = *unsure*, 9 = *strongly agree*). Table 1 includes a list of the inference questions.

Memory questions. We formed a composite *memory score* from five statements about one's ability to remember the criminal events thoroughly, accurately, and objectively after it occurred. For example, the statements were "After witnessing the [criminal activity], I would remember all of the details about the event" and "After the [criminal activity], my memory for the event would be objective." Participants responded to the statements on a 9-point scale (1 = *strongly disagree*, 5 = *unsure*, 9 = *strongly agree*). Table 1 includes a list of the memory questions.

Implicit Theory Memory Scale (ITMS). To control for people's beliefs about memory ability, which could influence participants' memory scores, we included the ITMS. Developed by Niedźwieńska, Neckar, and Baran (2007), the ITMS tests people's beliefs about the credibility of autobiographical memories (Cronbach's alpha = .83). The scale tests for people's skepticism of memory ability with statements like "Each event that a person can recall really happened" and "Memory is like a video camera that records all experiences of an individual." Higher scores indicate lower memory skepticism.

Identification With Police Scale (IPS). To determine whether people's beliefs about police officers' abilities to remember and comprehend criminal events differed by their general attitudes toward police officers, we included the IPS. Developed by Tyler and Fagan (2008), the IPS measures the degree to which individ-

[2] Data collection exceeded our 100-participant target sample because we underestimated the total number of exclusions. See OSF at https://osf.io/8ynvq/ for additional information about our data collection.

[3] A Go-Pro camera is an electronic recording device that people can attach to themselves, offering a first-person perspective.

Table 1
Bias Statements Forming Inference Composite Scores and Memory Composite Scores

Item type	
Inference	Memory
1. As the robbery happens, I would notice everything that is happening.	1. After witnessing the robbery, I would remember all of the details about the event.
2. While watching the robbery, my understanding of the event would be objective.	2. After witnessing the robbery, I would remember all of the information accurately.
3. If I'm paying very close attention to the event, I can prevent my worldview/life experiences from affecting my understanding of the robbery.	3. After witnessing the robbery, my memory for the event would be objective.
4. Other witnesses would draw the same conclusions about the event.	4. Others should completely trust my memory for the event.
5. My understanding of the event would be ruled by emotions rather than reason. (R)	5. My memory of the event would be distorted in a manner that serves the interests of my worldview/life experiences. (R)

Note. R = reverse scored.

uals identify with police (Cronbach's alpha = .87). We used a modified version of the IPS developed by Granot et al., (2014). Higher scores indicate a greater identification with police.

General attitudes toward BWC footage. We included four exploratory questions to better understand people's expectations of BWC footage evidence in criminal contexts. These questions, for example, asked participants "In how many cases do you think video footage provides a conclusive account of what occurred?" and "If you were a juror, do you think you would be able to understand the footage more accurately and thoroughly if an expert explained the recorded event in court?" For all questions, see Appendix.

Procedure. MTurk workers were recruited to participate in a study titled "Perceptions of Recorded Events." We told participants they would read about different scenarios and answer questions about them. Participants provided consent and were directed to an instruction page, which explained they would read about nine different hypothetical criminal scenarios occurring 30 ft. from each observer. Next, participants received the counterbalanced self, average American, or average officer scenarios. For each of the three observer scenarios, participants read about three different viewing perspectives (i.e., live, first-person, and third-person). Because we were interested in the effect of witnessing an event the second time via an electronic recording, all participants received the live perspective first. Following the live perspective, participants received the first-person and second-person electronic recording perspectives in counterbalanced order. Regardless of the camera perspective that participants read about first, we always asked participants to imagine that it was the second viewing for the observer. In sum, participants learned about nine different scenarios: a live viewpoint, a BWC [GoPro] footage viewpoint, and a surveillance footage viewpoint for themselves, the average American, and the average officer. After reading each scenario, participants provided responses to the counterbalanced inference and memory questions. Participants completed delay tasks after the first-person viewpoint scenario (demographic information questionnaire; approximately 60 s) and after the second viewpoint scenario (either the BWC [GoPro] view or surveillance footage view; card sorting task, 300 s). Participants then responded to the ITMS, IPS, and four questions concerning their general attitudes toward the BWC footage. Last, we asked participants to describe what they thought the study was about. Participants were then thanked for their time and debriefed.

Results

We conducted two repeated measures ANOVAs, one with inference scores as the dependent measure and one with memory scores as the dependent measure. We included mean-centered IPS and mean-centered ITMS in both ANOVAs. We included IPS to measure whether participants' perceptions of an officer's susceptibly to biases differed depending on their preexisting attitudes toward police. We included ITMS to determine whether our manipulated variables predicted participants' memory and inference scores after accounting for differences in people's skepticism of the credibility of memory.[4] Additionally, we tested for effects involving the order that participants provided ratings for the observers. A significant interaction between order and observer emerged, $F(9.29, 141.13) = 2.24$, $p = .018$, $\eta_p^2 = .129$,[5] for the inference score ANOVA, so we included order as a covariate in those analyses.[6]

As predicted and consistent with the bias blind spot literature, participants rated themselves as less susceptible to bias than the average American for both memory ($M_{diff} = 0.36$, $d = 0.337$, 95% CI [0.02, 0.63])[7] and inference questions ($M_{diff} = 0.33$, $d = 0.347$, 95% CI [0.04, 0.65]). As shown in Table 2, participants rated the average officer as less susceptible to bias than the average American on both inference ($M_{diff} = 1.01$, $d = 1.121$, 95% CI [0.79, 1.45]) and memory ($M_{diff} = 0.95$, $d = 0.943$, 95% CI [0.62, 1.26]) measures: Inference, $F(1.86, 141.13) = 34.24$, $p < .001$, $\eta_p^2 = .311$; Memory, $F(2, 162) = 27.68$, $p < .001$, $\eta_p^2 = .255$. Importantly, IPS scores moderated the relationship between participants' ratings of themselves and the average police officer: Inference,

[4] ITMS was a significant predictor in all analyses (*p*s $< .001$).
[5] We used the Greenhouse-Geisser correction to account for violations of sphericity.
[6] Simple effects with Bonferroni adjustment revealed that participants who provided ratings for themselves immediately after rating the average American perceived themselves as being more biased than participants who rated themselves first.
[7] Means are evaluated at mean centered ITMS and IPS unless noted otherwise.

Table 2
Experiment 1 Means (and Standard Deviations) of Participants' Memory and Inference Scores as a Function of Observer and Perspective Manipulations

	Other			Self			Officer		
Measure	Live	Go pro	Surv.	Live	Go pro	Surv.	Live	BWC	Surv.
Inference	4.74 (1.37)	5.49 (1.43)	5.36 (1.46)	5.18 (1.59)	6.23 (1.61)	6.17 (1.55)	5.85 (1.50)	6.37 (1.50)	6.32 (1.50)
Memory	4.51 (1.52)	5.41 (1.57)	5.31 (1.57)	5.12 (1.89)	5.90 (1.73)	5.99 (1.77)	5.72 (1.56)	6.26 (1.56)	6.10 (1.63)

Note. Surv. = surveillance; BWC = body-worn camera footage.

$F(13.02, 141.13) = 3.57$, $p = .031$, $\eta_p^2 = .045$; Memory, $F(2, 162) = 5.91$, $p = .003$, $\eta_p^2 = .068$. Participants with strong pro-police attitudes (+1 *SD*) evaluated officers as less susceptible to inference ($M_{diff} = 0.60$, $p < .001$, $d = 0.433$, 95% [0.13, 0.74]) and memory biases ($M_{diff} = 0.74$, $p < .001$, $d = 0.427$, 95% CI [0.12, 0.73]) than themselves, whereas participants with less positive attitudes toward the police (−1 *SD*) evaluated themselves as no more susceptible to inference ($M_{diff} = 0.06$, $p = .291$, $d = 0.043$, 95% CI [−0.26, 0.35]) and memory ($M_{diff} = -0.01$, $p = .96$, $d = 0.005$, 95% CI [−0.30, 0.31]) biases than the average officer.

Contrasting with our prediction that participants would rate the third-person, surveillance perspective as providing the least biased account, our results indicate that participants perceived officers as forming marginally more objective recollections of the crime with a first-person, BWC perspective ($M = 6.26$) than with surveillance footage ($M = 6.10$; $M_{diff} = 0.16$, Bonferroni adjusted $p = .075$, $d = 0.159$, 95% CI [−0.14, 0.46]). This effect emerged only for participants' rating of officers and only for memory, not inference ratings. For the self and the average American ratings, there was no statistically significant distinction between first-person and third-person camera perspectives for either memory or inference scores. Compared with the two electronic recording viewpoints (first-person and third-person), participants perceived that the live perspective would elicit the most bias from each observer for memory, $F(1.57, 126.91) = 61.41$, $p < .001$, $\eta_p^2 = .431$, and understanding, $F(1.38, 104.47) = 50.31$, $p < .001$, $\eta_p^2 = .398$. Watching the criminal event a second time via camera footage had the largest effect on people's evaluations of the self and average American compared with the average officer. Specifically, people's evaluations of their own ability to objectively understand the event increased from 5.18 for the live scenario to 6.20 for the video scenarios (19.6% increase), whereas participants' evaluations of the average American increased by 14.4% and by 4.4% for the average officer. Memory scores, however, changed the greatest for the average American (18.9%), whereas evaluations of the self changed by 16% and by 8% for the average officer.

Although we did not provide a priori predictions for the relationship between the three observers and the three viewing perspectives, significant interactions between these variables emerged for both memory, $F(3.35, 271.39) = 4.56$, $p = .003$, $\eta_p^2 = .053$, and inference scores, $F(2.26, 287.75) = 6.13$, $p < .001$, $\eta_p^2 = .075$. Simple effects with Bonferroni adjustment revealed a difference in ratings for the self and the average officer for the live perspective. Specifically, participants perceived that the officer's inferences ($M_{diff} = 1.26$, $p < .001$, $d = 1.01$, 95% CI [0.69, 1.33]) and memory ($M_{diff} = 0.61$, $p = .004$, $d = 0.447$, 95% CI [0.14, 0.75]) for the witnessed crime were less susceptible to biases than themselves. No differences, however, emerged between the average American and the self for either electronic recording perspective. Again, participants perceived the average American as being the most susceptible to bias across all viewing perspectives.

For the question "In how many cases do you think video footage provides a conclusive account of what occurred?" participants' responses ranged widely, from 10% of cases to 90% of cases ($M = 66.43$, $SD = 20.40$). Moreover, 40 (69%) participants indicated that if they were jurors, they would interpret BWC footage more effectively with the help of an expert. The majority of participants (88.1%) also indicated that if they were involved in an incident that was recorded, they would want the opportunity to view footage before providing a written statement.

We coded participants' responses to the question "If a crime occurred, what other information would you want in order to be able to accurately understand the event?" into seven categories ($\kappa = .905$, $p < .001$). The category with the largest number of responses was eyewitness accounts (50 participants). Participants also indicated that other camera perspectives (23 participants) and physical evidence (16 participants) would provide useful information. Other participant responses included contextual information about the crime (i.e., suspect motivations, alibis, criminal history; 12 participants), officer and suspect testimony (seven participants), and relying on their own memory (two participants). Three participants indicated that no other information would be useful in their understanding of the criminal event. In summary, despite BWC footage being viewed as objective evidence and perhaps a panacea to deterring police misconduct, these data suggest there is much variability in the extent to which people would value BWC evidence in court.

Next, we replicated Experiment 1 to generalize our findings to a more representative sample. We also included additional questions to ascertain participants' past interactions with the police and how their encounters with police might influence their metacognitive beliefs about the police's ability to remain objective in criminal scenarios.

Experiment 2

Method

The method of Experiment 2 was identical to Experiment 1 except for a few important changes. Our sample in Experiment 2 is larger and more diverse. We counterbalanced crime type to more effectively demonstrate that differences in participants' responses are a result of a bias blind spot and not because of differences in

how participants might have imagined the criminal scenarios. We also added questions regarding participants' previous experience with the police, allowing us to examine the relationship between contact with the police and beliefs about police performance.

Participants. To increase the diversity of our sample, we had students from an urban college and MTurk workers participate. In total, 449 individuals consented and completed the experiment. We excluded participants based on a priori criteria. Specifically, we excluded 110 participants who failed to follow instructions, 59 participants who failed the embedded attention check, 17 who failed the manipulation checks, and five participants because of technical issues (i.e., they did not receive all of the materials). After exclusions, we had a final sample size of 203 participants (students = 48, MTurk = 155; males = 85; females = 118). The sample of 203 participants was predetermined by our desire to represent certain demographic populations, such as Hispanics and African Americans, high school educated, low-income, and males in our sample—as participants from these groups were underrepresented in Experiment 1. The sample was fairly diverse, with 93 (45.81%) identifying as White, 51 (25.12%) identifying as Hispanic, 30 (14.78%) identifying as Black or African American, 15 (7.39%) identifying as mixed race, 14 (6.90%) identifying as Asian, and two (0.99%) identifying as Hawaiian or Pacific Islander. The majority of participants had a high school education as their highest degree (54.19%), and the remaining had an associate's or bachelor's degree (32.51%) or a graduate degree (13.30%). One participant did not finish high school. The majority (37.44%) of participants' household annual incomes were between $25,000 and $49,000; 21.18% had an annual income of less than $24,000; 19.21% had an annual income between $50,000 and $74,000; and 23.15% had an annual income above $74,000. Almost half (47.78%) of the sample reported having had contact with the police in the past 5 years.

Materials. Participants responded to the same inference and memory questions as Experiment 1 but with one difference: Instead of asking participants about their worldviews, we asked them about their life experiences. With this change, we intended to make the statements clearer and more accessible to participants. For example, statements read "If I'm paying very close attention to the event, I can prevent my life experiences from affecting my understanding of the robbery" and "My memory of the event would be distorted in a manner that serves the interests of my life experiences."

Police contact. To determine participants' interactions with the police, we asked participants whether they had ever been the victim of a crime. We also asked whether participants had contact with the police in the past 5 years. If participants responded in the affirmative, then they responded to three statements about the fairness of the encounter (Tyler & Fagan, 2008)—"I received a fair outcome"; "I received the outcome I deserved according to the law"; and "I received the outcome I feel I deserved"—using scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Police fairness. Participants also answered questions from Tyler and Fagan's (2008) evaluation of police actions aspect of procedural justice. Specifically, we provided people with statements about the justice of police decision making: "Usually accurately understand and apply the law"; "Make their decisions based on facts, not their personal biases and opinions"; "Try to get the facts in a situation before deciding how to act"; "Give honest explanations for their actions to the people they deal with"; "Apply the rules consistently to different people." Participants responded using scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Procedure. The procedure was identical to Experiment 1, but we counterbalanced the crime type so that the assault, stabbing, and robbery scenarios were paired with the self, average police officer, and average American equally. Participants answered the additional questions at the end of the experiment before being debriefed.

Results

Like Experiment 1, we conducted two repeated measures ANOVAs, one with inference scores as the dependent measure and one with memory scores as the dependent measure. However, we only included mean centered ITMS in both ANOVAs, because unlike Experiment 1, IPS and ITMS were significantly correlated ($r = .196$, $p < .005$), and contrary to our hypotheses, IPS did not significantly predict any variables. Additionally, we tested for effects involving the order that participants provided ratings for the observers. No significant order effects emerged, so we do not discuss order effects any further.

Overall, Experiment 2 replicated Experiment 1. There was a significant main effect of person on inference scores, $F(1.854, 176.384) = 37.851$, $p < .001$, $\eta_p^2 = .158$, and memory scores, $F(1.906, 186.283) = 31.00$, $p < .001$, $\eta_p^2 = .134$. Simple effects demonstrated that participants exhibited a bias blind spot, rating themselves as less susceptible than the average American to biases that would influence their inferences ($M_{diff} = 0.68$, $p < .001$, $d = 1.076$, 95% CI [0.87, 1.28]) and memory ($M_{diff} = 0.69$, $p < .001$, $d = 0.888$, 95% CI = [0.68, 1.09]) for a criminal event. Participants also rated the average officer as being less susceptible than the average American to biases in inference ($M_{diff} = 0.63$, $p < .001$, $d = 0.691$, 95% CI [0.49, 0.89]) and memory ($M_{diff} = 0.68$, $p < .001$, $d = 0.649$, 95% CI [0.45, 0.85]).

There was a significant interaction between ITMS and person on inference scores, $F(1.854, 28.107) = 6.032$, $p = .003$, $\eta_p^2 = .029$, and memory scores, $F(1.906, 31.680) = 5.189$, $p = .007$, $\eta_p^2 = .025$. People with low memory skepticism or people who scored one standard deviation above the mean on the ITMS measure rated all observers' inference and memory abilities as being more objective than individuals scoring one standard deviation below the mean. Participants with low memory skepticism rated the average American ($M_{inference} = 5.40$; $M_{memory} = 5.25$) as being more objective than people with high memory skepticism ratings of the average American ($M_{inference} = 5.33$; $M_{memory} = 5.17$).

A main effect of perspective emerged for inference scores, $F(1.505, 182.953) = 159.151$, $p < .001$, $\eta_p^2 = .442$, and memory scores, $F(1.560, 190.487) = 122.090$, $p < .001$, $\eta_p^2 = .426$. This result, however, was qualified by the significant interactions between person and perspective variables for both inference, $F(3.689, 20.606) = 12.920$, $p < .001$, $\eta_p^2 = .060$, and memory, $F(3.660, 18.186) = 11.955$, $p < .001$, $\eta_p^2 = .056$. Simple effects revealed that for all observers, participants rated the live condition as providing the least objective account compared with the BWC and surveillance conditions (see Table 3). For the live perspective, participants rated the officer as having a better ability to remain objective than themselves on both inference ($M_{diff} = 0.304$, Bon-

Table 3
Experiment 2 Means (and Standard Deviations) of Participants' Memory and Inference Scores as a Function of Observer and Perspective Manipulations

	Other			Self			Officer		
Measure	Live	Go pro	Surv.	Live	Go pro	Surv.	Live	BWC	Surv.
Inference	4.90 (1.38)	5.61 (1.47)	5.91 (1.48)	5.44 (1.61)	6.43 (1.49)	6.28 (1.51)	5.74 (1.47)	6.18 (1.48)	6.07 (1.52)
Memory	4.65 (1.64)	5.56 (1.50)	5.42 (1.62)	5.36 (1.77)	6.23 (1.70)	6.10 (1.72)	5.63 (1.63)	6.04 (1.62)	5.99 (1.65)

Note. Surv. = surveillance; BWC = body-worn camera footage.

ferroni adj. $p = .012$, $d = 0.300$, 95% CI [0.10, 0.50]) and memory ($M_{diff} = 0.274$, Bonferroni adj. $p = .057$, $d = 0.247$, 95% CI [0.05, 0.44]) measures. However, for BWC footage, participants rated themselves as performing better than officers on the inference measure ($M_{diff} = 0.248$, Bonferroni adj. $p = .038$, $d = 0.266$, 95% CI [0.071, 0.46]) but not on the memory measure. Again, participants judged the average American as being the least likely to have an objective understanding and memory of the criminal event.

Contrasting with Experiment 1, participants rated both the average officer ($M_{diff} = 0.115$, Bonferroni adjusted $p = .057$, $d = 0.267$, 95% CI [0.07, 0.46]) and self ($M_{diff} = 0.147$, Bonferroni adjusted $p = .036$, $d = 0.300$, 95% CI = 0.10, 0.50]) as being more objective after watching the event a second time via BWC footage rather than surveillance footage, but this effect did not emerge for the average American. For memory ability, the camera perspective was only significantly different for the self; participants rated themselves as being able to have a more objective memory for the event after BWC than surveillance footage ($M_{diff} = 0.13$, $p = .038$, $d = 0.426$, 95% CI [0.23, 0.62]). Additionally, a significant interaction emerged between the ITMS and perspective on memory scores, $F(1.560, 5.211) = 4.081$, $p = .027$, $\eta_p^2 = .020$. Participants demonstrating high memory skepticism (−1 *SD*) judged the ability for people to have objective memories after viewing the criminal event lower than participants who were less skeptical about memory (+1 *SD*).

Again, viewing the event a second time via camera footage increased participants' ratings the least for the officer on both understanding and memory variables. People's evaluations of their own ability to objectively understand the event increased from 5.44 for the live scenario to 6.36 for the video scenarios (16.9% increase), whereas participants' evaluations of the average American increased by 14.4% and by 6.6% for the average officer. Replicating Experiment 1, memory scores changed the greatest for the average American (18.2%), and evaluations of the self changed by 15.1% and by 6.8% for the average officer.

Determinants of police ability. To determine the factors that influence people's metacognitive beliefs about the average police officer's ability to understand and remember criminal encounters objectively, we ran a linear regression. Our predictors were mean-centered global police fairness, gender, ethnicity, and whether people had an experience with an officer in the past 5 years. For ethnicity, we combined African American and Hispanic or Latino and compared this combined racial category with White participants. We did this to have roughly equal group sizes and to examine whether minority status predicts differences in beliefs about police ability. For income, the dummy category was the lowest income bracket (<$24,000). Our predictor variables were not significantly correlated. The model explained 4.6% (adjusted R^2) of the variance in people's beliefs about an officer's ability to remain objective. The only significant predictor was the mean centered police fairness measure ($B = .762$, $SE = .243$), $t(166) = 3.14$, $p = .002$. The more people believed in police officers' abilities to conduct themselves fairly, the more people positively rated the average officer in the criminal scenarios.

Exploratory analyses. When asked the question "In how many cases do you think video footage provides a conclusive account of what occurred?" the mean participant response was 62.66% (*SD* = 23.37). The majority (80.8%) of participants responded in the affirmative to the question "If you were involved in an incident that was recorded, would you want to be able to watch the footage prior to writing a statement about what occurred?" Moreover, although 65.5% indicated an expert would help facilitate a better understanding of BWC footage in court, 26.6% indicated that they would not need an expert.

We coded participants responses to the question "If a crime occurred, other than BWC footage, what information would you want in order to be able to accurately understand the event?" into nine categories ($\kappa = .962$, $p < .001$). Like Experiment 1, the categories with the greatest number of responses were eyewitnesses ($n = 109$), other camera perspectives ($n = 43$), contextual information ($n = 24$), and officer and suspect testimony ($n = 24$). Other responses included physical evidence ($n = 18$), audio ($n = 7$), and relying on one's own memory ($n = 2$). Four participants reported that no other information would be necessary.

General Discussion

Our results partially supported our hypotheses. Namely, participants exhibited a bias blind spot: They discounted their own susceptibility to biases in interpreting and remembering events yet maintained those biases for others who viewed criminal events under the same circumstances. As expected, participants were better attuned to limitations in attention, perception, and memory when evaluating other people compared with themselves (Pronin et al., 2002). Interestingly, consistent with a smattering of previous findings that people assume officers have superior memory ability, participants perceived officers as less susceptible to perceptual and memorial biases than the average observer (Loftus, 1984; Yarmey & Jones, 1983). Though contemporary research on people's perceptions of police officer performance is scant, some current data from the Pew Research Center shows that people generally hold positive views of officers (Fingerhut, 2017). But these findings differ depending on an individual's ethnicity, age, and political

identity. Indeed, minority groups, people under 30 years of age, and Democrats are less likely to rate the police warmly on a "feeling thermometer" (1 = *very cold*, 5 = *very warm*). Likewise, our results from Experiment 1 suggest that participants' preexisting attitudes toward police attenuated their beliefs about officers' abilities to be objective: the less people identified with police, the more they thought officers would be affected by, and unable to overcome, their biases. Moreover, people with more negative attitudes evaluated police officers' ability to understand and remember events as being no better than their own ability. This finding is consistent with research demonstrating that people's identification with police officers moderate their punishment decisions and the extent to which people rely on misinformation contained in a police officer's written statement (Granot et al., 2014; Jones et al., 2017). To summarize, then, our results extended the bias blind spot to perceptions of officers but apparently only when people's preexisting views of officers were positive.

Our other notable findings pertained to participants' beliefs about the relationship between the camera perspective and observers' abilities to interpret and remember criminal events. First, participants perceived that an officer who viewed BWC footage would be the least susceptible to forming biased inferences and memories of the event. In Experiment 2, participants perceived that the self would also be the least susceptible to biases after viewing the footage a second time with BWC footage rather than surveillance. In both experiments, the differing camera perspectives did not seem to affect participants' ratings of the average observer. These results contrast with our prediction that people would perceive surveillance footage as providing the most accurate perspective (e.g., Lassiter et al., 2006). That the type of camera footage impacted ratings only for the police officer in Experiment 1 and both the police and self in Experiment 2 suggests that people are more attuned to who the observer is and the source of footage rather than the perspective. More specifically, our results suggest that people view BWC footage as physical evidence of what officers and the self see, and thus encode. Given that Simons and Chabris (2011) found the majority of people believe memory operates like a video camera, it is not surprising that people perceive BWC footage to be an extension of the officers' eyes. Yet GoPro footage was not afforded the same status; thus, it seems that people were not willing to give other observers the same benefit—a result consistent with the bias blind spot. Thus, our data demonstrate that people trust officers and their own abilities to view BWC footage of a criminal event and form unbiased conclusions. Importantly, however, there are reasons to doubt that (a) people can be completely objective, and (b) BWC footage replicates what people see. Even trained officers' stereotypes, expectations, and stressors influence how they see and remember the world (Correll et al., 2007; Eberhardt et al., 2004; Hope et al., 2016). BWCs also capture an inherently different perspective. BWCs are typically attached at chest level, subtly changing the viewpoint; are capable of night vision; and can be replayed frame by frame (Williams, Thomas, Jacoby, & Cave, 2016). Moreover, a camera fixated on an officer's uniform might fail to capture the whole scene that an officer sees. Consequently, BWC footage is not an exact replica of what an officer might remember; in fact, people should expect discrepancies between the two (Ho et al., 2017).

Second, participants rated their ability to accurately interpret and remember *recorded* criminal events as mostly equal to a police officer's ability. Yet self-ratings for the *live* viewpoint were significantly inferior to those of the police. This finding provides evidence that people underestimate—at least for themselves and police officers—the role that biases play in shaping perceptions of video footage. Consistent with the bias blind spot literature, participants were nonetheless mindful of others' limited ability to objectively perceive and remember footage of events (Pronin, Gilovich, & Ross, 2004; Pronin et al., 2002). For example, participants' evaluations of the average American were significantly lower than their evaluations of the self and the average officer across all viewing conditions. Interestingly, however, the change in people's ratings from the live viewing to the footage was the smallest for the officer in both experiments. That the ratings people gave themselves and the average observer shifted to a greater extent highlights the idea that people are confident in officers' objectivity and do not perceive the footage—a seeming replica of what the officer already saw—as improving those abilities. Of course, people's evaluations of themselves were still rated as being more resistant to bias. This exaggeration in people's beliefs about their perceptual and memory performance is consistent with other findings that people overestimate their ability to detect changes in scenes (Levin, Momen, Drivdahl, & Simons, 2000). Although Levin et al. (2000) did not find a significant difference between people's ratings of their own and others' susceptibility to change blindness, they did find a bias blind spot for people's performance on an imagined digit-span task. Perhaps, then, a concrete, visual example is necessary to reduce people's tendency to exhibit a bias blind spot.

Of course, our experiments are not without limitations. First, the majority of our sample in Experiment 1 self-identified as White, middle-aged, educated, and female. Although our sample in Experiment 2 was more representative of minority groups, education levels, and incomes, both samples had access to the Internet (see Paolacci & Chandler, 2014, for a discussion of why an Internet-based sample may limit generalizability). Moreover, although almost half of our participants in Experiment 2 had interacted with the police, the majority of these interactions were deemed positive. Thus, our sample may not adequately represent individuals who have had negative encounters with the police. Additionally, our experiments only tested people's beliefs about imagined criminal scenarios. When confronted with a real crime with actual footage, people may view their ability to understand and set aside their biases differently. To understand the differences between imagined and real scenarios, future research may want to use video stimuli and impose higher stakes. Nonetheless, we were interested in people's a priori assessments of their own and others' performance, so we do not consider this limitation to undermine the significance of our results. Another limitation is that we paired different crimes with the same observer in Experiment 1. It is possible, for example, that the stabbing, associated with the officer, was meaningfully different from the assault or the robbery. However, we counterbalanced crime type in Experiment 2 to help rule out this interpretation of our results. Because we did not find a significant interaction between observer and crime type, and our results replicate the bias blind spot, a robust effect, we are doubtful that the type of criminal activity that participants imagined is driving our results.

Despite the limitations of our study, our results provide valuable insight into the beliefs people hold about their own, officers', and others' susceptibility to biases in perception and memory for criminal events. And those beliefs have important implications for BWC policy (Pronin & Schmidt, 2013). For example, many researchers have advocated for policy that prevents officers from reviewing BWC footage prior to producing a written statement (Grady, Butler, & Loftus, 2016; Jones et al., 2017; Pezdek, 2015). Yet most police departments have not followed that recommendation (Leadership Conference on Civil & Human Rights & Upturn, 2017). Decades of research has clearly established that postevent information—information received from any source after an event—influences what people remember (e.g., Loftus, 2005). Thus, officers who view BWC footage prior to writing a report will expose themselves to postevent information that may shape what they remember. Of course, some of that information may be forensically useful. Regardless, it may distort officer's memory for the event–recall, that merely altering the perspective of the recording can alter a viewer's conclusions (Lassiter & Irvine, 1986). Indeed, although police footage might provide an objective account of events, legal precedent states that what the officer felt in the moment is important (*Graham v. Connor*, 1989). Thus, it is essential to have the officer's independent narrative. Given that people appear to perceive BWC footage as an extension of an officer's original memory for an event, they are unlikely to consider these potential problems. Moreover, considering that some police departments are relying on public opinion to inform their BWC policies, how people think about these issues may shape police practices (Onyekweli & Carney, 2016).

By blurring what an officer saw at the time of an event with what is later revealed with police footage, there may also be important consequences for how people interpret police officers' use of force (Engel & Smith, 2009). The constitutionality of force is determined by the Fourth Amendment's objective reasonableness standard, which takes into account the totality of the circumstances in the moment (*Graham v. Connor*, 1989). If people believe that a BWC captures what an officer saw, then they might use the camera footage to help make sense of what the officer felt in that moment. BWC footage, however, may misrepresent what an officer actually encoded (Klinger & Brunson, 2009). In addition, BWC footage may present an overly simplified account of what occurred, which could influence people's decisions about the constitutionality of force. In fact, we have already seen the Supreme Court describe dash-cam footage as providing "clear" evidence that a suspect posed a threat to the public (*Scott v. Harris*, 2007). Importantly, however—and foreshadowed by Justice Steven's dissent that the video was not so clear-cut—Kahan et al. (2009) found that people's ideologies shaped their judgments of the footage.

Our data may also have implications for the courtroom. If jurors deny their susceptibility to biases in memory and perception, then it will be incredibility difficult to set those biases aside. We already know that jurors have difficulty setting aside other biases; research shows they make judgments based on defendants' physical appearances and race (Mazzella & Feingold, 1994), interpret new evidence in terms of initial judgments about a case (Carlson & Russo, 2001), and form verdicts based on ideological values (Narby, Cutler, & Moran, 1993). Problematically, our exploratory analyses revealed that some people assume that BWC footage is irrefutable evidence, lacking in ambiguity. Indeed, 30% of our participants indicated that having an expert explain BWC footage would not assist them in viewing that footage objectively—a finding that is consistent with the idea that people are confident in what their eyes see (Andrade, 2011). Therefore, future research may need to consider how we can sensitize jurors to the fact that BWC footage is not always clear in what it depicts, and consequently remains open to interpretation.

Up to this point, we have discussed the limitations of human perception and memory but would be remiss if we did not also address the technological limitations of BWCs. As we mentioned briefly, the camera might be limited in its ability to provide a thorough account of an event. However, people may begin to expect videos to capture all illicit police–citizen interactions, and expect that such footage will allow them to be sure beyond a reasonable doubt. People may also expect that information gleaned from camera footage is easier to interpret—a possibility that our results allude to. These expectations may be difficult to meet given that officers' BWCs often fail to record critical moments because of technical issues, the limitations of the small camera (field of view, picture quality), or human error. Even when the police BWC records critical events, the audio quality and placement of the camera present obstacles to people's understanding of what the footage actually shows (Stoughton, 2018). In this sense, people's understanding and memory for recorded incidents may be skewed because of the technological limitations of BWCs, which may be further exacerbated by the fact that people assume footage to be a reliable form of evidence (Wasserman, 2014).

Finally, when people form disparate conclusions about the same observed event or the same footage, our results suggest that people will likely have difficulty understanding the "other side." After all, people believe that their inferences and memory are less susceptible to biases than others, making the views of each individual seem superior (Kennedy & Pronin, 2012; Frantz, 2006; Pronin, 2007). People also deem officers' views as more objective and worthy of trust. Thus, should an officer's account differ from a layperson's, people may be more likely to side with the officer simply because they assume the officer's version is more objective and complete. Given that much of what we see is open to multiple interpretations, conflicts will certainly arise if people are unable to acknowledge that their own and police officers' narratives are susceptible to bias. This blind spot may lead people to unwaveringly accept their own or an officers' perspective, stifle debate, and perpetuate disagreements.

As far as we know, this is the first study to address people's metacognitive beliefs about observers' susceptibility to bias when viewing criminal events live and via electronic recordings. Thus, although our results shed light on the asymmetries of people's perceptions of biases in criminal contexts, they also leave us with important but unanswered questions. For example, our results demonstrate that people with pro-police attitudes are more likely to trust officers' abilities to be objective. How, then, might people with favorable views of police react to evidence that an officer was inconsistent with the corresponding footage? Because this group has high expectations of officers, some may experience cognitive dissonance, causing them to perhaps change their beliefs about the status of BWC being a replica of what the officer saw. And for those who perceive BWC footage to be an extension of the officers' eyes, are they capable of distinguishing information gleaned at the time of the event from information learned from an

electronic recording? Research on source monitoring reveals that they may not be—a finding that would have considerable implications for people's judgments of force (Engel & Smith, 2009; Lindsay, 2008).

In conclusion, people exhibit a tendency to impute biases in others yet deny those same biases in themselves and police officers when making judgments about people's abilities to objectively view criminal events. Our results may shed light upon why disagreements arise between individuals who view the same footage but form disparate conclusions. Our findings may also shed light on people's expectations of police officers and, more generally, their beliefs about memory. If people are unable to accept that we all face similar cognitive limitations, then the policy debates across the United States will not be met with the comprehensive assessment that is sorely needed.

References

Andrade, E. B. (2011). Excessive confidence in visually-based estimates. *Organizational Behavior and Human Decision Processes, 116,* 252–261. http://dx.doi.org/10.1016/j.obhdp.2011.07.002

Artwohl, A. (2002). Perceptual and memory distortion during officer-involved shootings. *FBI Law Enforcement Bulletin, 71,* 18–24.

Balcetis, E., & Dunning, D. (2006). See what you want to see: Motivational influences on visual perception. *Journal of Personality and Social Psychology, 91,* 612–625. http://dx.doi.org/10.1037/0022-3514.91.4.612

Balcetis, E., Dunning, D., & Granot, Y. (2012). Subjective value determines initial dominance in binocular rivalry. *Journal of Experimental Social Psychology, 48,* 122–129. http://dx.doi.org/10.1016/j.jesp.2011.08.009

Becklen, R., & Cervone, D. (1983). Selective looking and the noticing of unexpected events. *Memory & Cognition, 11,* 601–608. http://dx.doi.org/10.3758/BF03198284

Boivin, R., Gendron, A., Faubert, C., & Poulin, B. (2017). The body-worn camera perspective bias. *Journal of Experimental Criminology, 13,* 125–142. http://dx.doi.org/10.1007/s11292-016-9270-2

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science, 6,* 3–5. http://dx.doi.org/10.1177/1745691610393980

Carlson, K. A., & Russo, J. E. (2001). Biased interpretation of evidence by mock jurors. *Journal of Experimental Psychology: Applied, 7,* 91–103. http://dx.doi.org/10.1037/1076-898X.7.2.91

Chabris, C. F., Weinberger, A., Fontaine, M., & Simons, D. J. (2011). You do not talk about Fight Club if you do not notice Fight Club: Inattentional blindness for a simulated real-world assault. *i-Perception, 2,* 150–153. http://dx.doi.org/10.1068/i0436

Correll, J., Park, B., Judd, C. M., Wittenbrink, B., Sadler, M. S., & Keesee, T. (2007). Across the thin blue line: Police officers and racial bias in the decision to shoot. *Journal of Personality and Social Psychology, 92,* 1006–1023. http://dx.doi.org/10.1037/0022-3514.92.6.1006

Eberhardt, J. L., Goff, P. A., Purdie, V. J., & Davies, P. G. (2004). Seeing black: Race, crime, and visual processing. *Journal of Personality and Social Psychology, 87,* 876–893. http://dx.doi.org/10.1037/0022-3514.87.6.876

Ehrlinger, J., Gilovich, T., & Ross, L. (2005). Peering into the bias blind spot: People's assessments of bias in themselves and others. *Personality and Social Psychology Bulletin, 31,* 680–692. http://dx.doi.org/10.1177/0146167204271570

Engel, R. S., & Smith, M. R. (2009). Perceptual distortion and reasonableness during police shootings: Law, legitimacy, and future research. *Criminology & Public Policy, 8,* 141–151. http://dx.doi.org/10.1111/j.1745-9133.2009.00538.x

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41,* 1149–1160. http://dx.doi.org/10.3758/BRM.41.4.1149

Fingerhut, H. (2017). *Deep racial, partisan divisions in Americans' views of police officers*. Retrieved from http://www.pewresearch.org/fact-tank/2017/09/15/deep-racial-partisan-divisions-in-americans-views-of-police-officers/

Firth, K., Hoffman, D. A., & Wilkinson-Ryan, T. (2017). Law and psychology grows up, goes online, and replicates. *Faculty Scholarship*. Retrieved from http://scholarship.law.upenn.edu/faculty_scholarship/1884

Frantz, C. M. (2006). I AM being fair: The bias blind spot as a stumbling block to seeing both sides. *Basic and Applied Social Psychology, 28,* 157–167. http://dx.doi.org/10.1207/s15324834basp2802_5

Grady, R. H., Butler, B. J., & Loftus, E. F. (2016). What should happen after an officer-involved shooting? Memory concerns in police reporting procedures. *Journal of Applied Research in Memory & Cognition, 5,* 246–251. http://dx.doi.org/10.1016/j.jarmac.2016.07.002

Graham v. Connor. 490 U.S. 386 (1989).

Granot, Y., Balcetis, E., Schneider, K. E., & Tyler, T. R. (2014). Justice is not blind: Visual attention exaggerates effects of group identification on legal punishment. *Journal of Experimental Psychology: General, 143,* 2196–2208. http://dx.doi.org/10.1037/a0037893

Hauser, D. J., & Schwarz, N. (2016). Attentive Turkers: MTurk participants perform better on online attention checks than do subject pool participants. *Behavior Research Methods, 48,* 400–407. http://dx.doi.org/10.3758/s13428-015-0578-z

Ho, J. D., Dawes, D. M., McKay, E. M., Taliercio, J. J., White, S. D., Woodbury, B. J., . . . Miner, J. R. (2017). Effect of body-worn cameras on EMS documentation accuracy: A pilot study. *Prehospital Emergency Care, 21,* 263–271. http://dx.doi.org/10.1080/10903127.2016.1218984

Honig, A. L., & Roland, J. E. (1998). Shots fired: Officer involved. *The Police Chief*. Retrieved from http://www.aele.org/law/2008FPAUG/shots-fired.pdf

Hope, L., Blocksidge, D., Gabbert, F., Sauer, J. D., Lewinski, W., Mirashi, A., & Atuk, E. (2016). Memory and the operational witness: Police officer recall of firearms encounters as a function of active response role. *Law and Human Behavior, 40,* 23–35. http://dx.doi.org/10.1037/lhb0000159

Jones, K. A., Crozier, W. E., & Strange, D. (2017). Believing is seeing: Biased viewing of body-worn camera footage. *Journal of Applied Research in Memory & Cognition, 6,* 460–474. http://dx.doi.org/10.1016/j.jarmac.2017.07.007

Kahan, D. (2010). Fixing the communications failure. *Nature, 463,* 296–297. http://dx.doi.org/10.1038/463296a

Kahan, D. M., Hoffman, D. A., & Braman, D. (2009). Whose eyes are you going to believe? Scott v. Harris and the perils of cognitive illiberalism. *Harvard Law Review, 122,* 08–18.

Kennedy, K. A., & Pronin, E. (2012). Bias perception and the spiral of conflict. In J. Hanson (Ed.), *Series in political psychology. Ideology, psychology, and law* (pp. 410–446). New York, NY: Oxford University Press.

Klinger, D. (2006). Police responses to officer-involved shootings. *National Institute of Justice Journal, 253,* 21–24.

Klinger, D. A., & Brunson, R. K. (2009). Police officers' perceptual distortions during lethal force situations: Informing the reasonableness standard. *Criminology & Public Policy, 8,* 117–140.

Kok, P., Brouwer, G. J., van Gerven, M. A., & de Lange, F. P. (2013). Prior expectations bias sensory representations in visual cortex. *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience, 33,* 16275–16284. http://dx.doi.org/10.1523/JNEUROSCI.0742-13.2013

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108,* 480–498. http://dx.doi.org/10.1037/0033-2909.108.3.480

Kunst-Wilson, W. R., & Zajonc, R. B. (1980). Affective discrimination of stimuli that cannot be recognized. *Science, 207,* 557–558. http://dx.doi.org/10.1126/science.7352271

Landström, S., Af Hjelmsäter, E. R., & Granhag, P. A. (2007). The camera perspective bias: A case study. *Journal of Investigative Psychology and Offender Profiling, 4,* 199–208. http://dx.doi.org/10.1002/jip.78

Lassiter, G. D., & Irvine, A. A. (1986). Videotaped confessions: The impact of camera point of view on judgments of coercion. *Journal of Applied Social Psychology, 16,* 268–276. http://dx.doi.org/10.1111/j.1559-1816.1986.tb01139.x

Lassiter, G. D., Ratcliff, J. J., Ware, L. J., & Irvin, C. R. (2006). Videotaped confessions: Panacea or Pandora's box? *Law & Policy, 28,* 192–210. http://dx.doi.org/10.1111/j.1467-9930.2006.00223.x

Lassiter, G. D., Slaw, R. D., Briggs, M. A., & Scanlan, C. R. (1992). The potential for bias in videotaped confessions. *Journal of Applied Social Psychology, 22,* 1838–1851. http://dx.doi.org/10.1111/j.1559-1816.1992.tb00980.x

Leadership Conference on Civil and Human Rights & Upturn. (2017). *Police body worn cameras: A policy scorecard*. Retrieved from https://www.bwcscorecard.org/

Levin, D. T., Momen, N., Drivdahl, S. B., IV, & Simons, D. J. (2000). Change blindness blindness: The metacognitive error of overestimating change-detection ability. *Visual Cognition, 7,* 397–412. http://dx.doi.org/10.1080/135062800394865

Lindsay, D. S. (2008). Source monitoring. In H. L. Roediger, III (Ed.), *Cognitive psychology of memory. Vol 2 of Learning and memory: A comprehensive reference* (pp. 325–347). Oxford, UK: Elsevier. http://dx.doi.org/10.1016/B978-012370509-9.00175-3

Loftus, E. F. (1984). Eyewitnesses-essential but unreliable. *Psychology Today, 18,* 22–26.

Loftus, E. F. (2005). Planting misinformation in the human mind: A 30-year investigation of the malleability of memory. *Learning & Memory, 12,* 361–366. http://dx.doi.org/10.1101/lm.94705

Loftus, E. F., Levidow, B., & Duensing, S. (1992). Who remembers best? Individual differences in memory for events that occurred in a science museum. *Applied Cognitive Psychology, 6,* 93–107. http://dx.doi.org/10.1002/acp.2350060202

Loftus, E. F., & Palmer, J. C. (1974). Reconstruction of automobile destruction: An example of the interaction between language and memory. *Journal of Verbal Learning & Verbal Behavior, 13,* 585–589. http://dx.doi.org/10.1016/S0022-5371(74)80011-3

Mack, A., & Rock, I. (1998). *Inattentional blindness* (Vol. 33). Cambridge, MA: MIT Press.

Mazzella, R., & Feingold, A. (1994). The effects of physical attractiveness, race, socioeconomic status, and gender of defendants and victims on judgments of mock jurors: A meta-analysis. *Journal of Applied Social Psychology, 24,* 1315–1338. http://dx.doi.org/10.1111/j.1559-1816.1994.tb01552.x

Narby, D. J., Cutler, B. L., & Moran, G. (1993). A meta-analysis of the association between authoritarianism and jurors' perceptions of defendant culpability. *Journal of Applied Psychology, 78,* 34–42. http://dx.doi.org/10.1037/0021-9010.78.1.34

Neisser, U., & Becklen, R. (1975). Selective looking: Attending to visually specified events. *Cognitive Psychology, 7,* 480–494. http://dx.doi.org/10.1016/0010-0285(75)90019-5

Niedźwieńska, A., Neckar, J., & Baran, B. (2007). Development and validation of the implicit memory theory scale. *European Journal of Psychological Assessment, 23,* 185–192. http://dx.doi.org/10.1027/1015-5759.23.3.185

Onyekweli, N., & Carney, A. (2016). *Camden gives democratic policing a chance*. Policing Project at NYU School of Law. Retrieved from https://policingproject.org/dispatches/camden-gives-democratic-policing-a-chance/

Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology, 45,* 867–872. http://dx.doi.org/10.1016/j.jesp.2009.03.009

Paolacci, G., & Chandler, J. (2014). Inside the Turk: Understanding Mechanical Turk as a participant pool. *Current Directions in Psychological Science, 23,* 184–188. http://dx.doi.org/10.1177/0963721414531598

Pezdek, K. (2015). Should cops get to review the video before they report? *The Marshall project*. Retrieved from https://www.themarshallproject.org/2015/08/13/should-cops-get-to-review-the-video-before-they-report#

Plant, E. A., & Peruche, B. M. (2005). The consequences of race for police officers' responses to criminal suspects. *Psychological Science, 16,* 180–183. http://dx.doi.org/10.1111/j.0956-7976.2005.00800.x

Pronin, E. (2007). Perception and misperception of bias in human judgment. *Trends in Cognitive Sciences, 11,* 37–43. http://dx.doi.org/10.1016/j.tics.2006.11.001

Pronin, E. (2009). The introspection illusion. *Advances in Experimental Social Psychology, 41,* 1–67. http://dx.doi.org/10.1016/S0065-2601(08)00401-2

Pronin, E., Gilovich, T., & Ross, L. (2004). Objectivity in the eye of the beholder: Divergent perceptions of bias in self versus others. *Psychological Review, 111,* 781–799. http://dx.doi.org/10.1037/0033-295X.111.3.781

Pronin, E., & Kugler, M. B. (2007). Valuing thoughts, ignoring behavior: The introspection illusion as a source of the bias blind spot. *Journal of Experimental Social Psychology, 43,* 565–578. http://dx.doi.org/10.1016/j.jesp.2006.05.011

Pronin, E., Lin, D. Y., & Ross, L. (2002). The bias blind spot: Perceptions of bias in self versus others. *Personality and Social Psychology Bulletin, 28,* 369–381. http://dx.doi.org/10.1177/0146167202286008

Pronin, E., & Schmidt, K. (2013). Claims and denials of bias and their implications for policy. *The Behavioral Foundations of Public Policy,* 195–216.

Scott v. Harris. 550 U.S. 372 (2007).

Simons, D. J. (2000). Current approaches to change blindness. *Visual Cognition, 7,* 1–15. http://dx.doi.org/10.1080/135062800394658

Simons, D. J., & Chabris, C. F. (1999). Gorillas in our midst: Sustained inattentional blindness for dynamic events. *Perception, 28,* 1059–1074. http://dx.doi.org/10.1068/p281059

Simons, D. J., & Chabris, C. F. (2011). What people believe about how memory works: A representative survey of the U.S. population. *PLoS ONE, 6*(8), e22757. http://dx.doi.org/10.1371/journal.pone.0022757

Simons, D. J., & Levin, D. T. (1998). Failure to detect changes to people during a real-world interaction. *Psychonomic Bulletin & Review, 5,* 644–649. http://dx.doi.org/10.3758/BF03208840

Stoughton, S. (2018). Police body-worn cameras. *North Carolina Law Review*. Advance online publication. http://dx.doi.org/10.2139/ssrn.3094334

Takarangi, M. K. T., Segovia, D. A., Dawson, E., & Strange, D. (2014). Emotional impact feedback affects how people remember an analogue trauma event. *Memory, 22,* 1041–1051. http://dx.doi.org/10.1080/09658211.2013.865238

Takarangi, M. K., & Strange, D. (2010). Emotional impact feedback changes how we remember negative autobiographical experiences. *Experimental Psychology, 57,* 354–359. http://dx.doi.org/10.1027/1618-3169/a000042

Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology, 5,* 207–232. http://dx.doi.org/10.1016/0010-0285(73)90033-9

Tyler, T. R., & Fagan, J. (2008). Legitimacy and cooperation: Why do people help the police fight crime in their communities? *Ohio State Journal of Criminal Law, 6,* 231–275.

Veltkamp, M., Aarts, H., & Custers, R. (2008). Perception in the service of goal pursuit: Motivation to attain goals enhances the perceived size of

goal-instrumental objects. *Social Cognition, 26,* 720–736. http://dx.doi.org/10.1521/soco.2008.26.6.720

Wasserman, H. M. (2014). Moral panic and body cameras. *Washington University Law Review, 92,* 831.

Williams, T., Thomas, J., Jacoby, S., & Cave, D. (2016). Police body cameras: What do you see? *The New York Times*. Retrieved from https://www.nytimes.com/interactive/2016/04/01/us/police-bodycam-video.html?mcubz=3&_r=1

Yarmey, A. D., & Jones, H. P. T. (1983). Accuracy of memory of male and female eyewitnesses to a criminal assault and rape. *Bulletin of the Psychonomic Society, 21,* 89–92. http://dx.doi.org/10.3758/BF03329962

Appendix

Survey Questions

Observer Live Scenarios

1. Self: Imagine you are about to enter a convenience store when you witness a robbery takes place about 30 feet away from you.
2. Average American: Imagine that an average American is walking through a parking lot and notices one man physically assaulting another man about 30 feet away from him or her.
3. Average Officer: Imagine that a police officer is on foot patrol when he sees someone stab a pedestrian with a knife about 30 feet away. The perpetrator runs away before the officer can reach him.

Exploratory Questions

1. In how many cases do you think video footage provides a conclusive account of what occurred?
2. If a crime occurred, what information other than BWC footage would you want in order to be able to accurately understand the event?
3. If you were involved in an incident that was recorded, would you want to be able to watch the footage prior to providing a written statement about what occurred?
4. If you were a juror, do you think you would you be able to understand video footage more accurately and thoroughly if an expert explained the recorded event in court?

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