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Scott E. Culhane & Kimberly Schweitzer

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NOTE

## Police shootings and body cameras one year post-Ferguson

Scott E. Culhane and Kimberly Schweitzer

Department of Criminal Justice, University of Wyoming, Laramie, WY, USA

### ABSTRACT

Police departments across many countries have rapidly begun implementing the use of body cameras to document their interactions with the public. Previous research has shown that body camera footage of a police shooting was viewed positively before, but negatively immediately following, the media coverage of the Ferguson, MO shooting of Michael Brown [Culhane, S.E., Boman IV, J., and Schweitzer, K., 2016. Public perceptions of the justifiability of police shootings: the role of body cameras in a pre/post-Ferguson experiment. *Police quarterly*, 19, 251–274. doi:10.1177/1098611116651403]. This paper presents a partial replication of their final study. In this replication, participants watched, heard, or read about a police shooting involving a man with a weapon. The data collection was conducted one year after Brown's death. Results indicated that judgments of the shooting's justification returned to those seen before the Ferguson incident. When participants could see the event unfold, they were significantly more likely to judge the shooting was justified when compared to participants in the study shortly after the Ferguson incident.

### ARTICLE HISTORY

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### KEYWORDS

Body cameras; police shootings; deadly force; Ferguson; Missouri

The death of Michael Brown in Ferguson, Missouri resulted in a national outcry for better documentation of police and citizen interactions. The subsequent, and sometimes violent, protests garnered the attention of the national media. Coverage of the aforementioned protests, the police investigation, the grand jury inquiry, and subsequent outcomes were presented daily via both nightly news and 24-hour news stations. In the wake of the shooting, two issues were at the forefront of the controversy: relations between the police and minorities and the need for better documentation of police interactions. While the former was not a new discussion in the policing literature (for a review see Peck 2015), the latter did indeed spark a substantial interest in modern police technology, specifically body-worn cameras (BWC). The immediate reaction to implementing BWCs was 'overwhelming support from every stakeholder in the controversy – the public, the White House, federal legislators, police officials, police unions, and the American Civil Liberties Union' (Wasserman 2014, pp. 832–833). In the year following Brown's death, the United States Department of Justice has spent tens of millions of dollars to fund departmental purchases of BWC and also millions for training officers to use the cameras, technical assistance with the various mechanisms needed, and evaluative research on the impact of implementing the camera technology (DOJ 2015).

Indeed, several articles exploring issues with BWCs have appeared in the one year following the Ferguson shooting (Ariel *et al.* 2015, Coudert *et al.* 2015, Jennings *et al.* 2014, Jennings *et al.* 2015, Ready and Young 2015, Smykla *et al.* 2015, Tanner and Meyer 2015, Young and Ready, 2015). Furthermore, *Police Quarterly* released a special issue dedicated to research on BWCs in 2016. The bulk of the recent research has focused mainly on how the police perceive the implementation of BWCs (e.g. Jennings *et al.* 2014, Smykla *et al.* 2015) and how BWCs can change the police interactions with citizens



(e.g. Jennings *et al.* 2015, Ready and Young 2015). Research regarding law enforcement's perceptions of BWCs has found that, in general, police officers are supportive of their use (Jennings *et al.* 2014). More specifically, police officers find BWCs helpful for evidence gathering (Owens *et al.* 2014, Jennings *et al.* 2015), command staff think BWCs will decrease police officers' use of force (Smykla *et al.* 2015), and officers believe the implementation of BWCs is driven by the media and the public's negative perceptions of the police (Smykla *et al.* 2015). Research exploring whether or not BWCs actually change police officers' behaviour in the field has found that officers wearing BWCs were significantly less likely to stop-and-frisk citizens (Ready and Young 2015), less likely to have response-to-resistance and serious complaints made against them (Jennings *et al.* 2015), less likely to make arrests (Ready and Young 2015), but more likely to have incidents result in a criminal charge (Owens *et al.* 2014), and more likely to give citations and have interactions with citizens (Ready and Young 2015). Although this research is important, there is another component of BWCs that has only recently been explored: how do BWCs alter the public's perception of police-citizen interactions? There is only one paper to date that has examined the role body camera footage has on citizens' perceptions of the justification of the officer's actions (i.e. Culhane *et al.* 2016).

To explore whether BWCs could alter how justified the public perceives an officer's actions to be, Culhane and colleagues (2016) presented participants with BWC footage of an incident in which a police officer shot and killed a man. The members of the public were asked to judge how justified the shooting was. The incident involved a man with a knife who disregarded multiple verbal warnings by the police officer and deliberately and continuously moved towards the officer. After multiple attempts to 'talk the man down' and to express the consequences of continued threat against the officer (i.e. 'I will shoot you!'), the officer shot and killed the suspect. The prosecutor's office ruled the shooting a 'suicide by cop' and cleared the officer of any wrongdoing (for a review of suicide by cop see McKenzie 2006). Culhane *et al.* (2016) explored multiple variables that may have influenced the public's perception of whether or not a police shooting may be considered justified.

Culhane and colleagues' (2016) initial intent was to examine the role that BWC footage would have on citizen perceptions of the justifiability of a police shooting of a citizen. Aside from manipulating the medium of presentation (BWC video, audio only, or a verbatim transcript), the officer's orders (wait for back-up or proceed alone) and the mental state of the subject (known mentally ill, known sound mind, or unknown) were also manipulated. Results showed significant main effects for the medium of presentation and the officer's orders, but not for the mental state of the subject. Specifically, when participants watched BWC video footage they were significantly more likely to report that the shooting was justified compared to when they read a verbatim transcript of the incident. Additionally, when the officer was ordered to wait for back-up and did not, the shooting was perceived as significantly less justified than when the officer was ordered to go in.

Shortly after the first study was completed, Michael Brown was fatally shot by a police officer in Ferguson, Missouri. As discussed above, the controversy resulted in extensive national media coverage and widespread support for BWCs. Culhane *et al.* (2016) then replicated the study shortly after the incident to determine whether there were any changes in the public's perception of the justifiability of the same police shooting event described above. Because of the various citizen groups and state agencies calling for BWC implementation, the authors expected there would be an increase in the justification ratings for the conditions featuring BWC footage. However, contrary to expectations, the data that were collected after the Ferguson shooting indicated that the *same* footage of the *same* police shooting resulted in a dramatic *decrease* in perceived justification for the shooting. That is, participants who watched the video footage from a BWC after the Ferguson incident reported the lowest ratings of officer justification for deadly force. The second main effect observed in the first study, the officer's orders, was replicated (i.e. participants were significantly more likely to think the shooting was justified when the officer was ordered to proceed). Unlike the first study (pre-Ferguson), the post-Ferguson results also indicated a significant interaction between the presentation medium and officer's orders. Specifically, participants judged the shooting to be the least justified of any condition when the incident was portrayed via video footage from a BWC and the officer was ordered to

wait for back-up (Culhane *et al.* 2016). Thus, results from the post-Ferguson study (Study 2) indicated that the biggest change in justification ratings came from how the participants were presented with the incident. Specifically, participants who were shown BWC footage of the shooting were the least likely to say the shooting was justified, compared to those who listened to only the audio or read the transcript from the incident.

The aforementioned need to understand minority/police relations was also tested in a limited capacity. The authors examined perceptual judgments as a function of the participant's self-identified racial category. Before the Ferguson incident, the data trended towards non-White participants having a more negative view of the shooting, but the difference did not reach statistical significance ( $p = .13$ ). In the second study, Culhane and colleagues (2016) found that racial differences for the justification of the shooting had widened and reached statistical significance. Specifically, non-White participants were less likely to judge the shooting was justified compared to White participants. When questioned about the Ferguson incident in Study 2, the non-White participants placed significantly more blame on Officer Wilson for the shooting, whereas White participants placed more blame on Michael Brown.

The authors surmised that the justifiability of a police shooting from pre- to post-Ferguson may have been due to the political climate of attitudes towards police (Culhane *et al.* 2016). If this were the case, it would be expected that as time passes and the media coverage wanes, the effect of the coverage of a particular incident would dissipate. As such, the current study partially replicated the Culhane *et al.* (2016) studies one year after the Ferguson incident to determine if, in fact, the discrepant findings were due to the extensive media coverage and seemingly negative perceptions of police at the time. The present study was an exact replication of Culhane and colleagues' (2016) 'Study 2' with one exception. In the original paper, the variable 'Mental Status of the Suspect' was not found to be significant in either study, and therefore, it was excluded from the present study.

## The present study and hypotheses

The concept of procedural justice (see Tyler 2004 for an in-depth discussion) provides a basis for identifying why seeing the video of a shooting (one that has been deemed justified) would result in greater public support for the officer's actions than would reading about the shooting in a report or transcript. The goal of the present study was to determine whether or not the change in public perceptions that occurred post-Ferguson still remained one year after the Ferguson shooting. If citizens perceive that the police officer acted in a procedurally just manner, by being fair and reasonable, then they are more likely to see police as legitimate (e.g. Mazerolle *et al.* 2013). Legitimacy, or the overall belief that the police are just, appropriate, and proper, is fundamental to the functioning of a police department (Tyler 2006). In the case of the present study, citizens should view the shooting of an armed suspect, who refuses to follow commands to drop the weapon and stop approaching the officer, as an appropriate response. As Jacobsen (2015) noted, 'citizens' perceptions of the legitimacy of the police develop based on the ways in which officers exercise their authority and whether or not that exercise of authority is perceived as being fair and just' (p. 311). When people see a fatal police/citizen interaction on camera, they may be more likely to see the serious threat and have a greater understanding of why the officer acted the way he/she did. If so, then citizens may be more likely to perceive the shooting as procedurally just (Tyler and Huo 2002).

Tyler (2004) identifies four key elements in procedural justice judgments: participation, neutrality, dignity/respect, and trust. If a citizen perceives the four aspects to be met, then they are more likely to perceive police actions as procedurally just. Two of these elements, dignity/respect and trust, are important for this study when evaluating a police interaction via BWC. In all mediums of presentation used in the present study, the officer shows a basic level of trust by expressing concern for the well-being of the suspect who is suicidal (with statements such as,

'Whatever you're thinking of doing, it's not worth it.'). The officer also established dignity and respect by being a consistent voice of reason. He did not degrade the suspect, call him names, curse him, etc. It could be further argued that the officer will be perceived as neutral – a third element of procedural justice. During the interaction, the officer simply calls into the house asking for insurance information and a driver's license to rectify an automobile accident. The officer should and would likely do the same in any case regardless of the characteristics of the citizen. The medium of presentation makes a difference, however, because in video and audio presentations the amplification of these elements would suggest increased support for the officer's actions. For example, the intonation of the officer's voice when the escalation becomes serious and the inflection used to express the critical nature of what is about to happen are both present in a manner that cannot be processed similarly as reading the transcript. Likewise, hearing a calm voice call into the apartment for insurance information (one not in a sarcastic, face-tious, or mocking tone) would lend support for the officer.

Only the element of participation does not present itself in the incident; the suspect makes no attempt to voice his concerns or side of the story, choosing to remain mute. Still, procedural justice might very well explain the benefits of seeing an interaction between the police and citizenry in this capacity, because the public may view the suspect's lack of participation in favour of the officer. The officer states 'Please come out and talk to me', giving the suspect an opportunity to participate. Participation is a fundamental and well replicated aspect of procedural justice (Earley and Lind 1987), but an inability to present one's side to an officer and the decision not to do so at all are fundamentally different. This too cannot be adequately expressed in a transcript.

Given the unexpected finding in Culhane *et al.* (2016) that the video condition resulted in the lowest justifiable homicide certainty scores two months after Ferguson, the source of such a finding was identified as an anomaly. Particularly, Culhane and colleagues (2016) postulated that the finding was due to the nationwide media coverage of the Brown shooting. It is likely that any indicators of fairness, neutrality, and trust that were present in the BWC video, and should be indicative of procedural justice, were overridden by the slew of indicators of unfairness, bias, and untrustworthiness of police officers presented in the news coverage. As time passes, however, memory for news events tends to decay (O'Conner *et al.* 2000). Over time, the reduced impact of the Ferguson coverage should be no different from any other high profile news story, and the concept of procedural justice should once again explain the general attitudes of the public towards a police shooting. The inverse to this postulation is that Ferguson has set off such a shift in police and citizen relations that even legitimate police shootings will be perceived negatively by the public. Similar to Study 1 of Culhane and colleagues (2016), we expected to find that there would be a main effect for medium of presentation, such that participants' justified homicide certainty scores (discussed below) in the video and audio conditions would be significantly higher than those of the transcript condition (H1) because of the behavioural and audio cues that invoke feelings of procedural justice. Further, we expected that when the data for the video condition were compared to the scores of Culhane *et al.*'s (2016) Study 2, there would be a significant difference, with the data one year later having higher justified homicide certainty scores (H1a).

In addition, it was expected that the racial differences noted in Study 2, but not Study 1, of Culhane *et al.* (2016) were also a function of the media sensationalism. As found in Study 1, there should be no difference between the White and Non-White participants on the dependent variable of homicide justification (H2; see Culhane *et al.* 2016, Studies 1 and 2). We did not make specific predictions regarding the blame placed (on Officer Wilson or on Michael Brown) for the shooting. While not the focus of this paper, the main effect for officer orders (wait for back-up or proceed) was hypothesised here, as it was present in both Studies 1 and 2 of the earlier work. In line with the tenets of procedural justice, participants should have higher justification for an officer who was following orders to proceed on his investigation solo (H3).

## Method

### *Participants*

Two hundred and fifteen participants were recruited online using Amazon's workforce marketplace, Mechanical Turk (mTurk). Members of mTurk are known as 'workers' and they choose which surveys, or 'Human Intelligence Tasks' (HITs), they would like to complete. Upon signing into their accounts, workers are presented with a list of HITs from which they choose ones they would like to complete for money. Workers can search HITs for keywords or specific researchers known as 'requesters'. They can also sort the list of HITs by pay, time required, time remaining before the HIT is no longer available, and qualification requirements. The workers are motivated to provide quality work because a requester can reject their work. Such a rejection leads to less opportunity to complete future HITs by reducing the worker's reputation or approval rating (Mason and Suri 2012). The requester can specify a certain level of approval ratings (e.g. 90%) when specifying what workers are eligible for the study. Preliminary work exploring mTurk is promising, and there are many advantages for using mTurk in large scale data collection (Schleider and Weisz 2015). It is a confidential and secure database of individuals who complete the various HITs for a financial reward, and the data provided by the workers is generally high-quality (Schleider and Weisz 2015). Similar to university undergraduate participant pools, the participants in the present study were part of a subset of the population who volunteered to participate in the present research. However, research has shown that mTurk workers tend to be more diverse and representative of the general population compared to the typical college student sample (e.g. Mason and Suri 2012). The mean age of the participants in the present study was 35.95 ( $SD = 12.25$ ), and 60.9% identified themselves as female. The majority (78.1%) self-reported their race and ethnicity as White, followed by Black (8.4%), and Hispanic (7.0%), with the rest indicating another race/ethnicity.

### *Materials and procedure*

Workers on mTurk first read a brief description of the present study that told them they would be presented with either a video, audio, or transcript of a recent police incident. Interested workers were then asked to click on a link which brought them to an informed consent page. Workers who indicated that they were 18 years old, US citizens, and consented to participate in the study were then directed to a webpage where they received brief instructions for the study. Workers who chose not to participate were redirected to a page where they were thanked for their interest. Participants were then randomly assigned to one of six conditions. The study was a three (medium of presentation: video, audio, and transcript)  $\times$  two (orders from senior officer: enter the premises, wait for back-up) design. All participants were given the following background information: (a) Eric Johnson was shot by police on 25 August 2013, (b) Officer Martin was responding to a hit-and-run, and (c) Officer Martin first encountered Johnson's girlfriend outside of the residence. The final piece of information given to participants described what the officer's orders were. Participants were either told the officer was instructed (a) to wait for back-up, but entered the residence against orders or (b) to proceed with his investigation. After reading the background information, participants then either watched, listened, or read the transcript of an actual police shooting (the same video used in Culhane *et al.* (2016) described above). The shooting detailed an incident in which a White, male officer responded to a call regarding a hit-and-run suspect. The officer was wearing a BWC on his chest which captured the entire incident. Upon arrival, the officer was met by a female who reported that the suspect had a knife and may have been wanting to harm himself. After multiple verbal calls for the suspect to come out, the officer entered the apartment and found the suspect, who was a White male, with a knife in hand. The suspect walked towards the officer, despite multiple instructions for him to drop the weapon, and the officer fatally shot the suspect. After being presented with the incident, participants were then questioned about

their perceptions of the justification for the shooting with a dichotomous decision and rated their certainty in their justification decision.

## Results

Overall, 42.8% of the present sample felt that the shooting was justified. A three (medium of presentation)  $\times$  two (orders from a senior officer) Analysis of Variance (ANOVA) was conducted on a dependent variable, called *justified homicide certainty*, ranging from  $-5$  (completely unjustified) to  $5$  (completely justified; see Culhane *et al.* 2016). On average, participants thought the shooting was slightly unjustified ( $M = -0.55$ ,  $SD = 4.01$ ).

The ANOVA resulted in one significant main effect (i.e. officer's orders) and a significant interaction (i.e. presentation medium by officer's orders). We replicated the main effect for orders from a senior officer (H3). If the officer was given orders to enter the premises, he was judged to have been more justified in the shooting ( $M = .57$ ) than if he was told to wait for back-up ( $M = -1.33$ ),  $F(1, 209) = 12.51$ ,  $p < .001$ , Partial  $\eta^2 = .06$ .

The video condition ( $M = -0.56$ ) and the audio condition ( $M = -0.07$ ) led to the officer being seen as slightly more justified in his shooting of the suspect than the transcript condition ( $M = -1.00$ ), but these differences were not significant,  $F(2, 209) = .35$ ,  $p = .25$ , Partial  $\eta^2 = .00$ , and are contrary to Culhane *et al.*'s (2016) Study 1 results and our own expectations (H1). A more in depth examination of the numbers (H1a) revealed that the mean justification score of the video condition was significantly higher than the post-Ferguson score (Culhane *et al.* Study 2 data),  $t(72) = 2.39$ ,  $p = .020$ ,  $d = .28$ , and the value was virtually identical to, and not significantly different from, the pre-Ferguson mean (Culhane *et al.* Study 1 data),  $t(72) = -.13$ ,  $p = .90$ ,  $d = -.02$ . These findings suggest that the public's perception of the justifiability of this officer shooting returned to levels seen before the national media coverage (see Figure 1).

These results are, in part, qualified by a significant interaction between medium of presentation and the officer's orders. An examination of the interaction,  $F(2, 209) = 5.37$ ,  $p = .005$ , Partial  $\eta^2 = .06$ , showed that in the transcript condition, if the officer was told to wait for back-up he was rated as far less justified ( $M = -2.59$ ), as opposed to being told to proceed ( $M = 1.81$ ). This same pattern was seen in the other two conditions – more justification for orders to proceed, but not at the same extreme (see Figure 2). Post hoc tests revealed the two transcript conditions (transcript/ proceed and transcript/wait) were significantly different from each other, while neither the video or audio conditions were.

Twenty-four participants responded that they had not followed the Michael Brown incident at all. They were excluded from the next analyses.<sup>1</sup> The removal of these participants resulted in a racial division of 148 Whites and 43 non-Whites. Contrary to Culhane *et al.*'s Study 2, and as expected here (H2), results indicated that there was no significant difference in justification for this study's shooting incident between the White and non-White groups,  $t(189) = .50$ ,  $p = .62$ ,  $d = .08$ . With respect to the questions about the Ferguson incident, exploratory tests of the fault attributed for said incident revealed that the two groups did not differ on how much fault was attributed to Michael Brown for the shooting,  $t(189) = 1.22$ ,  $p = .23$ ,  $d = .22$ . However, significant differences, as found in Culhane and colleagues' Study 2, were found for the blame attributed to the Ferguson Police Department's Officer Wilson for the shooting,  $t(189) = -3.90$ ,  $p < .001$ ,  $d = .71$ . Non-White participants attributed significantly more blame to the police officer than did White participants.

## Discussion

To determine whether the observed differences in Culhane and colleagues (2016) findings were simply an effect of the extensive media coverage the Ferguson shooting received, the present study partially replicated their work one year after the shooting of Michael Brown in Ferguson, Missouri. Results from the present work indicated, that, in general, this was the case. Specifically,



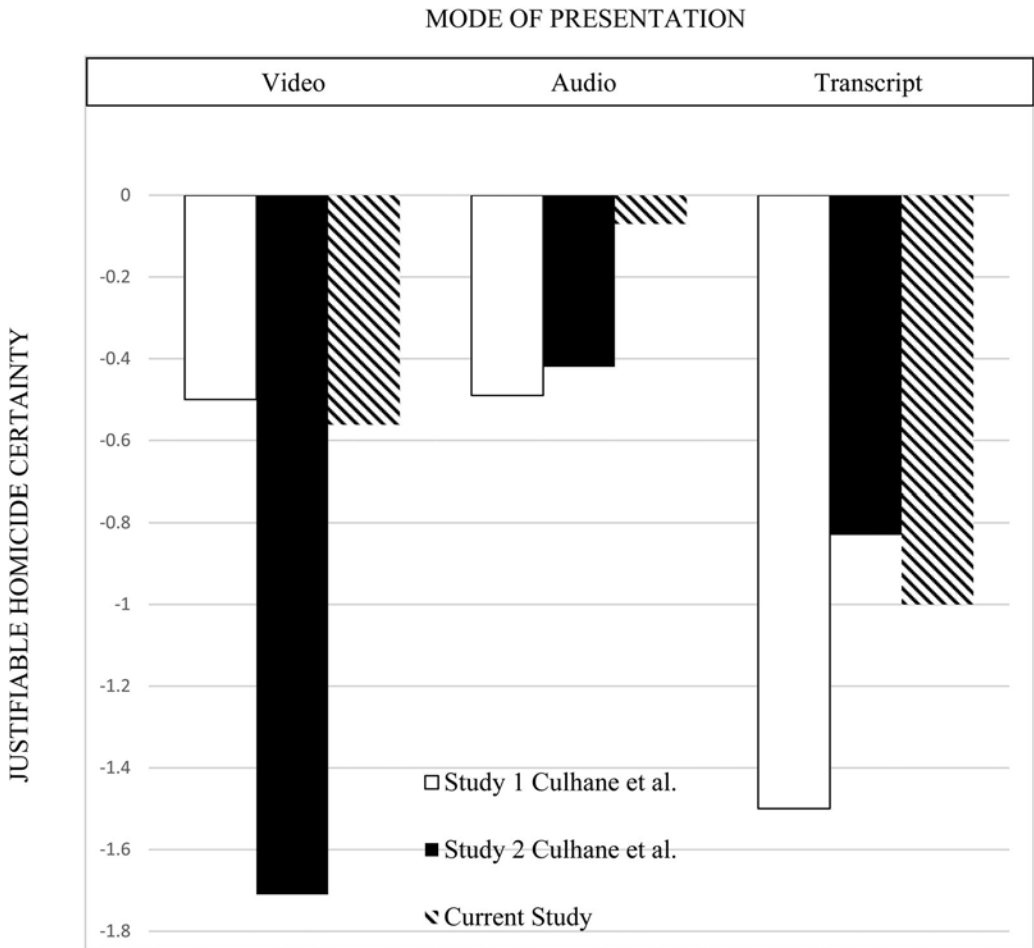


Figure 1. The extent to which attitudes were unfavourable to a police shooting, per mode of presentation: Culhane et al. Study 1 and Study 2 and the current results.

participants who watched BWC footage of the shooting one year after the Ferguson incident reported the shooting was equally as justified as participants whose data were collected before the Ferguson incident. Additionally, the 'one year after' participants viewed the study's shooting incident as significantly more justified than did participants shortly after the Ferguson incident.

These findings indicate that Culhane and colleagues' (2016) difference in justifiability ratings shortly before and after the Ferguson incident may in fact have been an artifact of the extensive media coverage surrounding the shooting. It is likely that the negative media attention regarding police officers lowered the public's perception of procedural justice. This idea is also being shown in other recent research that has examined what is being termed as the 'Ferguson effect' (Nix and Wolfe 2015, Wolfe and Nix 2016). Specifically, Nix and Wolfe (2015) found that the negative publicity from police-involved events, such as the shooting in Ferguson, led to officers being less motivated to do their job and less likely to think that they were 'legitimate authority figures' (p. 20). These findings held even after controlling for other variables known to predict self-legitimacy (Nix and Wolfe 2015). Wolfe and Nix (2016) also examined how the Ferguson effect alters police officers' willingness to engage in community partnership and found that willingness had decreased. However, unlike their other study, when variables known to predict community partnership were controlled for (i.e. self-legitimacy and organisational justice), the effect went away. The work by Wolfe and Nix, along

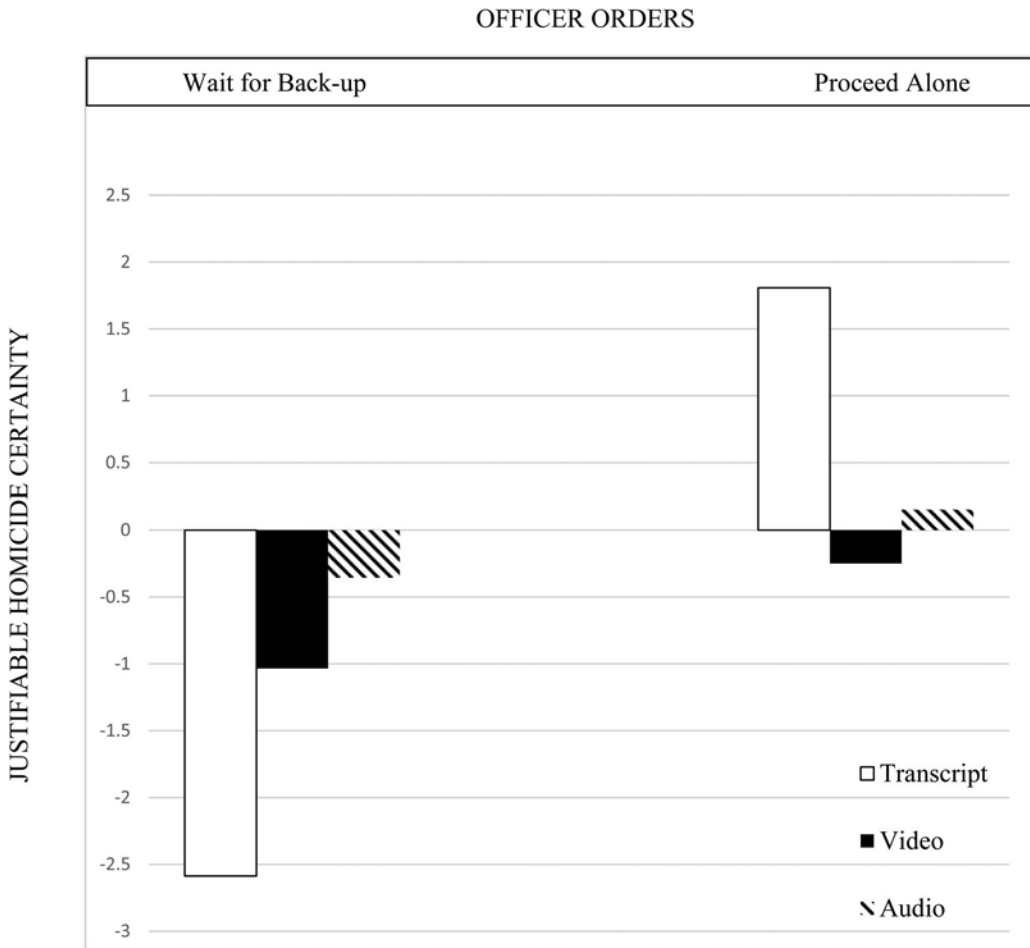


Figure 2. The interaction effect found for the orders given to the officer and the medium of presentation.

with the present research, indicate that the Ferguson incident, and those like it, impact both the public and law enforcement. This research also, however, indicates that the effect is nuanced.

Contrary to the theoretical underpinning of procedural justice, there was no significant difference in perceptions of justifiability of the shooting for the three mediums of presentation. However, the means were in the expected direction of the theoretical predictions made. Specifically, video and audio presentations had the most favourable perceptions of the officer's actions. Procedural justice's influence on police shootings could also be scrutinised by including additional measures, such as one used by Sunshine and Tyler (2003). Controlling for preconceived notions of legitimacy may amplify the findings of the medium of presentation and clarify the effect of seeing a BWC video. However, it would be remiss not to postulate that viewing an officer shoot someone may be too graphic for the average member of the public to withstand and no accounting of procedural justice could explain away the backlash towards the police. Or, the current climate of police and citizen relations could be shifting the views of the police as a whole. Likewise, many members of the public may never view a police shooting as legitimate unless there are very specific instances (e.g. terrorism or an active shooter).

In the wake of the controversy of the shooting in Ferguson, MO, it is extremely important to understand the dynamics behind the push for increasing the use of BWCs in everyday police practice. These

issues faced by police are not limited to the United States, as the UK is also facing a need for more research on BWCs and police/citizen interactions (Owens *et al.* 2014). Since the death of Michael Brown, there have been multiple deaths of Black citizens by White police officers, and many of these incidents have garnered national media attention (e.g. Walter Scott, Eric Garner, Tamir Rice, and Freddie Gray). If the police are trusted and viewed as legitimate in the wake of incidents like these, then the procedural justice model serves as a potential explanation. The results of the present study indicate that although there is a period of time shortly after these shootings, or other use of force incidents, that alter how justified the officer's actions are perceived to be by citizens, it may not be a permanent effect. Specifically, these differences in perceived justifiability may disappear in the time after the incident and are likely due to extensive media coverage. As such, the findings of the present research, coupled with the Culhane *et al.* (2016) research, indicate that it may be beneficial for time to pass before presenting citizens with BWC footage and asking them to judge the justifiability of the incident. The perception of whether or not a police shooting is justified, especially if the incident received considerable attention from the media and has BWC footage, could sway significantly depending upon the timing of the release. Recent cases (e.g. Samuel Dubose and Jason Harrison) with video footage are prime examples, as the justification for deadly force is still open to the interpretation of the prosecutor or grand jury.

The present study also found a significant interaction between the presentation medium and the officer's orders. This interaction was not significant in Culhane and colleagues' (2016) pre-Ferguson study, but was in their post-Ferguson results. However, further exploration of the significant interaction in both the post-Ferguson and present studies indicated that the results were slightly different. In the present study, participants who read the transcript of the shooting and were told that the officer was instructed to wait for back-up thought the shooting was significantly less justified than the other conditions. Whereas in Culhane and colleagues' (2016) post-Ferguson study participants thought the shooting was least justified when they were presented with a video of the shooting and were told the officer was ordered to wait for back-up. As there are three different findings across three studies with respect to this interaction effect, one should interpret the finding with caution. Still, the two significant interactions had one thing in common: the independent variable of officer's orders seemed to be driving the effect. Such a finding also speaks to the need to further understand the participants' view of police legitimacy through the lens of procedural justice.

### *Future directions and limitations*

The use of a non-random sample of volunteers is a limitation of both the initial work and this replication attempt. The use of mTurk for collecting data and conducting research has increased significantly in the last five years. Still, it is not a truly random sampling of individuals in the population. While human subject pools at universities may participate for extra course credit, class requirements, or monetary reward, the workers of mTurk are volunteers completing the surveys purely for financial gain. Given the low amount paid to the average mTurk worker, one would be hard pressed to find the reward undue or coercive for completing the survey (for a brief review of participant motivation and payments see Ripley 2006). Future research should test police shooting scenarios with other sampling techniques to confirm the findings of this work.

Future research should also examine other factors of a police shooting and how the public perceives the justification for deadly force. There are numerous factors that gain the attention of the media in a shooting and may play a role in how the public views the officer's actions. For example, the race of the suspect and the officer may have profound implications on the judgments of the viewer. Other factors that may play a role, but have not been tested, include the officer/suspect gender, the number of shots fired, the location of the entry wounds, whether a weapon was present, corroborating witness testimony, the number of officers present on scene, alternative methods available (i.e. TASER), the urban/rural nature of the setting, and many others. A ripe area of exploration is the education of the public on police procedure and how it may influence judgments. Again, the

majority of people in all three studies (e.g. Culhane *et al.* (2016) Study 1 and Study 2, and the present work) found the shooting to be unjustified. Anecdotal responses to this finding included the number of shots fired and the placement of shots (e.g. centre mass instead of the suspect's arm). Some people have reported the idea that the officer should have shot the suspect in a manner which was less likely to result in death, such as an arm or leg. However, officers are not trained to aim for such targets. If the public were to be educated on training and procedure of officers, would that lead to a better understanding of the officer's actions and thus, a higher percentage of justification opinions? Research has yet to answer these and many other variables on police shootings.

### *Concluding remarks*

As questionable police/citizen interactions continue, there has been an increased desire for all police-involved incidents to be recorded in some way (Young and Ready 2015). Additionally, in the current study, when participants were questioned about the usefulness of the video footage in making their decisions, 89% of participants who were in the video condition agreed that the footage was helpful. Likewise, 88% of those who did not receive video footage agreed that video footage would have been helpful in making a decision. Perhaps the most telling statistic of all was that only 1% of the participants disagreed with the statement that officers should be *required* to wear BWCs. Thus, it seems that video footage of police-citizen encounters is highly desired. Recognising this, many police departments have implemented this technology with some having chosen to phase the technology in, others going municipality wide all at once, and some departments leaving it up to the individual officer.

Though BWCs are being used more widely, research is only just beginning to explore how BWCs affect police officers' perceptions and interactions with citizens. Farrar (2013) reported multiple improvements in police and community interactions as part of a randomised implementation of body cameras. In a single police department, complaints against officers dropped an astonishing 88% when body cameras were used. Furthermore, use of force incidents dropped 50%, reducing the risk to both officers and the public.

Although research is finding obvious advantages to the implementation of BWCs, the potential reduction in privacy for both the police and citizens cannot be ignored. The American Civil Liberties Union (ACLU) attempted to address some of these issues by writing the first white paper on BWCs, and in 2014 the US Department of Justice put out a report that detailed guidelines for police departments when implementing BWCs (Coudert *et al.* 2015). Although these papers/reports provide direction regarding the use of BWCs, issues still remain. For example, in the United States, the Freedom of Information Act states that any images captured by police BWCs are considered public information. However, the release of such footage requires censoring to avoid violating non-involved citizens' privacy and therefore requires additional time and effort.

Another contentious aspect of BWCs is the act of recording in private residences. Typically, recording in a private area is not allowed unless all parties consent. Though some states are attempting to address this issue by altering existing laws (e.g. Pennsylvania), until laws are changed on a Federal level, legality problems will still arise. A third issue with the implementation of BWCs is the violation to the police officer's privacy. Wearing a BWC while on the job allows for every aspect of the officer's day to be recorded. Research (e.g. Ready and Young 2015) has shown that recording police-citizen interactions has benefits for both the officer and the community, but the option of constant surveillance does not come without drawbacks for the officer's privacy. Another issue with the use of BWCs is when exactly the BWC should be recording. If it is always recording, the officer's privacy is more likely to be violated and there would need to be some sort of cloud storage for the massive amount of footage that would be collected. If when the BWC records is up to the officer, the risk of not recording when one should and vice versa becomes an issue. Outside of the United States, some countries have attempted to correct for this and implemented a system where the camera automatically records 30 seconds prior to when the officer pressed record on the BWC (Coudert

*et al.* 2015), but there is no evidence that 30 seconds is enough time to correct for the possible error of late activation.

Although in no way exhaustive, the above list helps illuminate some of the issues of implementing BWCs on a national scale. However, even the ACLU has called the use of such technology ‘a win for all’, noting ‘police on-body cameras are different because of their potential to serve as a check against the abuse of power by police officers’ (Stanley 2013, p. 1). Still, as Freund (2015) notes, the laws surrounding video recording by police are intertwined with the First and Fourth Amendments, release of information via the Freedom of Information requests, and current state statutes on wiretappings. There is no ‘one size fits all’ approach to the use, storage, or release of BWC footage.

The replication of Culhane *et al.* (2016) showed that the opinions of the public were swayed by the national media coverage for a period of time, but the judgments of individuals have returned to pre-Ferguson levels. In other words, our results showed that the media coverage of a police shooting influences judgments of justification in the immediacy of an incident, but fades over time. It is crucially important to understand the dynamics of a media frenzy in the wake of a questionable police shooting, and how it relates to public perceptions of police shootings. The present research aids in this understanding and indicates that when a police shooting receives national media attention, allowing time to pass before asking citizens to determine the justifiability of the officer’s actions when BWC evidence is present should allow for the least biased judgments.

## Note

1. The results of the main effect tests and interaction test did not change with the removal of these participants.

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## References

- Ariel, B., Farrar, W.A., and Sutherland, A., 2015. The effect of police body-worn cameras on use of force and citizens’ complaints against the police: a randomized controlled trial. *Journal of quantitative criminology*, 31 (3), 509–535. doi:10.1007/s10940-014-9236-3.
- Coudert, F., Butin, D., and Le Métayer, D., 2015. Body-worn cameras for police accountability: opportunities and risks. *Computer law & security review*, 31, 749–762. doi:10.1016/j.clsr.2015.09.002.
- Culhane, S.E., Boman IV, J., and Schweitzer, K., 2016. Public perceptions of the justifiability of police shootings: the role of body cameras in a pre/post Ferguson experiment. *Police quarterly*, 19, 251–274. doi:10.1177/1098611116651403.
- Department of Justice., 21 Sep. 2015., Justice Department awards over \$23 million in funding for body worn camera pilot program to support law enforcement agencies in 32 states. Available from <https://www.justice.gov/opa/pr/justice-department-awards-over-23-million-funding-body-worn-camera-pilot-program-support-law>.
- Earley, P.C. and Lind, E.A., 1987. Procedural justice and participation in task selection: the role of control in mediating justice judgments. *Journal of personality and social psychology*, 52, 1148–1160. doi:10.1037/0022-3514.52.6.1148.
- Farrar, T., 2013. Self-awareness to being watched and socially-desirable behavior: a field experiment on the effect of body-worn cameras on police use-of-force. *Police foundation*. Available from <http://www.policefoundation.org/sites/g/files/g798246/f/201303/The%20Effect%20of%20Body-Worn%20Cameras%20on%20Police%20Use-of-Force.pdf>.
- Freund, K., 2015. When cameras are rolling: privacy implications of body-mounted cameras on police. *Columbia journal of law & social problems*, 49 (1), 91–133.
- Jacobsen, S.K., 2015. Policing the ivory tower: students’ perceptions of the legitimacy of campus police officers. *Deviant behavior*, 36 (4), 310–329. doi:10.1080/01639625.2014.93565.
- Jennings, W.G., Fridell, L.A., and Lynch, M.D., 2014. Cops and cameras: officer perceptions of the use of body-worn cameras in law enforcement. *Journal of criminal justice*, 42 (6), 549–556. doi:10.1016/j.jcrimjus.2014.09.008.

- Jennings, W.G., Lynch, M.D., and Fridell, L.A., 2015. Evaluating the impact of police officer body-worn cameras (BWCs) on response-to-resistance and serious external complaints: evidence from the Orlando police department (OPD) experience utilizing a randomized controlled experiment. *Journal of criminal justice*, 43 (6), 480–486. doi:10.1016/j.jcrimjus.2015.10.003.
- Mason, W., and Suri, S., 2012. Conducting behavioral research on Amazon's Mechanical Turk. *Behavior research methods*, 44, 1–23. doi:10.3758/s13428-011-0124-6.
- Mazerolle, L., Antrobus, E., Bennett, S., and Tyler, T.R., 2013. Shaping citizen perceptions of police legitimacy: a randomized field trial of procedural justice. *Criminology*, 51, 33–64. doi:10.1111/j.1745-9125.2012.00289.x.
- McKenzie, I.K., 2006. Forcing the police to open fire. *Journal of police crisis negotiations*, 6, 5–25. doi:10.1300/J173v06n01\_02.
- Nix, J. and Wolfe, S.E., 2015. The impact of negative publicity on police self-legitimacy. *Justice quarterly* (online). doi:10.1080/07418825.2015.1102954.
- O'Connor, M.G., Sieggreen, M.A., Bachna, K., Kaplan, B., Cermak, L.S., and Ransil, B.J., 2000. Long-term retention of transient news events. *Journal of the international neuropsychological society*, 6 (1), 44–51. doi:10.1017/S1355617700611050
- Owens, C., Mann, D., and McKenna, R., 2014. The Essex body worn video trial: the impact of body worn video on criminal justice outcomes of domestic abuse incidents. *College of Policing*. Available from: [http://www.bwvsg.com/wp-content/uploads/2013/07/BWV\\_ReportEssTrial.pdf](http://www.bwvsg.com/wp-content/uploads/2013/07/BWV_ReportEssTrial.pdf).
- Peck, J.H., 2015. Minority perceptions of the police: a state-of-the-art review. *Policing: an international journal of police strategies & management*, 38, 173–203. doi:10.1108/PIJPSM-01-2015-0001.
- Ready, J.T., and Young, J.T.N., 2015. The impact of on-officer video cameras on police–citizen contacts: findings from a controlled experiment in Mesa, AZ. *Journal of experimental criminology*, 11 (3), 445–458. doi:10.1007/s11292-015-9237-8.
- Ripley, E.B.D., 2006. A review of paying research participants: it's time to move beyond the ethical debate. *Journal of empirical research on human research ethics*, 1 (4), 9–19. doi:10.1525/jer.2006.1.4.9.
- Schleider, J., and Weisz, J., 2015. Using Mechanical Turk to study family processes and youth mental health: a test of feasibility. *Journal of child & family studies*, 24 (11), 3235–3246. doi:10.1007/s10826-015-0126-6.
- Smykla, J.O., Crow, M.S., Crichlow, V.J., and Snyder, J.A., 2015. Police body-worn cameras: perceptions of law enforcement leadership. *American journal of criminal justice*, 1–20. doi:10.1007/s12103-015-9316-4.
- Stanley, J., 2013. Police body-mounted cameras: with right policies in place, a win for all. *American Civil Liberties Union*. Available from: [https://www.aclu.org/files/assets/police\\_body-mounted\\_cameras.pdf](https://www.aclu.org/files/assets/police_body-mounted_cameras.pdf).
- Sunshine, J., and Tyler, T.R., 2003. The role of procedural justice and legitimacy in shaping public support for policing. *Law and society review*, 37, 513–548. doi:10.1111/1540-5893.3703002.
- Tanner, S., and Meyer, M., 2015. Police work and new 'security devices': a tale from the beat. *Security dialogue*, 46, 384–400. doi:10.1177/0967010615584256.
- Tyler, T.R., 2004. Enhancing police legitimacy. *The annals of the American academy of political and social science*, 593, 84–99. Available from: <http://www.jstor.org/stable/4127668>.
- Tyler, T.R., 2006. Psychological perspectives on legitimacy and legitimation. *Annual review of psychology*, 57, 375–400. doi:10.1146/annurev.psych.57.102904.190038.
- Tyler, T.R. and Huo, Y.J., 2002. *Trust in the law: encouraging public cooperation with the police & courts*. New York: Russell Sage.
- Wolfe, S.E. and Nix, J., 2016. The alleged 'Ferguson Effect' and police willingness to engage in community partnership. *Law & human behavior*, 40, 1–10. doi:10.1037/lhb0000164.
- Young, J.T.N. and Ready, J.T., 2015. Diffusion of ideas and technology: the role of networks in influencing the endorsement and use of on-officer video cameras. *Journal of contemporary criminal justice*, 31, 243–261. doi:10.1177/1043986214553380.
- Wasserman, H.M., 2014. Moral panics and body cameras. *Washington university law review*, 92, 831–843. Available from: [http://openscholarship.wustl.edu/law\\_lawreview\\_commentaries/26](http://openscholarship.wustl.edu/law_lawreview_commentaries/26).