



The Feedback Effects of Controversial Police Use of Force

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Abstract

Controversial cases of police use of force against minority civilians have become a ubiquitous feature of news headlines, and videos of these interactions between citizens and government actors have placed them in the public sphere. In this paper, we examine the feedback effects of these publicized incidents. Using a unique survey-experiment implemented in 2019, we demonstrate that controversial police use of force against minority civilians prompts strong emotional reactions, increases support for body-cameras, changes beliefs about excessive force, and alters attitudes toward law enforcement. Notably, our design allows us to examine the effects of both text-based news stories and videos pulled from two real-world use of force cases, one lethal and one non-lethal. This study has important implications for public opinion, feedback effects, and perceptions of law enforcement.

Keywords Public opinion · Feedback effects · Policing · Use of force

At the time of this writing, the United States is experiencing widespread protest following the shooting of Jacob Blake by police in Kenosha, Wisconsin. In August 2020, Blake, a Black man, was shot in the back by Officer Rusten Sheskey during an attempted arrest, as he was opening his car door. The Blake shooting occurred in the midst of a movement for racial equality sparked in part by the killing of George

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Floyd by police in Minneapolis, Minnesota, which itself came on the heels of several others in which police were directly responsible for or failed to adequately respond to the deaths of Black citizens; perhaps most notably, the tragic shooting of Breonna Taylor in Kentucky.

While the recent response has been unprecedented, these tragedies are not. In recent years, police killings of Black citizens—Michael Brown, Walter Scott, Eric Garner, and Philando Castile, for example—have captured the public’s attention and are a regular feature of news stories. Indeed, a recent headline in the *Los Angeles Times* proclaimed that, “Getting killed by police is a leading cause of death for young black men in America” (Khan 2019).

In the United States, police kill more than a thousand civilians every year (Zimring 2020). The pervasiveness of stories about these events, which are sometimes accompanied by videos, raises an empirical question. Do stories and videos depicting controversial, racially-charged instances of police use of force affect public opinion?¹ Scholars have long-suggested that policies shape politics, and that government actions have feedback effects for the political attitudes and behaviors of the citizenry. This feedback literature suggests that government actions have “interpretive effects” whereby they are a source of information and meaning that shape attitudes about institutions, beliefs about the rights and standing of social groups, and policy preferences (Mettler and Sorelle 2018). In recent years, scholars have acknowledged that actions taken by the criminal justice system, specifically, prompt feedback for political behavior (e.g., Laniyonu 2018, 2019; Lerman and Harney 2019; Weaver and Geller 2019).

We argue that police use of force presents an understudied context in which to examine the feedback effects of government actions. Indeed, these situations involve government representatives directly interacting with citizens, and millions of people may watch it unfold.

It seems intuitive that stories of controversial police use of force impact public attitudes, but there are reasons to suspect that effects are muted. Decades of public opinion research demonstrate that people are often motivated to protect and reinforce their existing beliefs and attitudes (Bolsen and Palm 2019; Taber and Lodge 2006). Specifically, many Americans have high levels of trust in police, which may be resistant to change (Ekins 2016; Gallup 2019). For instance, Mullinix and Norris (2019) found that explicit information about racial disparities in traffic stops only reduces trust in police for a narrow subset of the population. The impact of information about police use of force is not entirely without study (Boudreau et al. 2019; Testa and Dietrich 2017; Turner et al. 2019), but as Cohen et al. (2019, p. 1112) noted, “police use of force generally has not concerned political scientists.”

¹ Throughout this paper, we refer to “controversial” instances of police use of force. While we have personal views of specific encounters, we do not label particular situations as “excessive” or “justifiable.” For decades, researchers have discussed what constitutes legitimate use of force (e.g. Bittner 1970), but the criteria have also changed over time. Because police departments, courts, and the public have different beliefs about what constitutes *excessive* force, we refer to them here as “controversial.”

We use a survey-experiment implemented in June 2019 to test the feedback effects of controversial instances of police use of force. Respondents were randomly assigned to receive (or not receive) a text-based news article, a video, or both, focused on a real-world case of police force against a minority civilian. We examine the effects of two events: one that resulted in a non-lethal civilian injury, and one that resulted in the civilian's death. To our knowledge, this study is unique in both design and breadth of outcomes. We demonstrate that these stories prompt strong emotional reactions, increase support for body-cameras, change beliefs about excessive force, and alter attitudes toward law enforcement. We discuss the implications for feedback effects and perceptions of police.

Police Use of Force and Public Opinion

An extensive literature has examined the individual and contextual factors that shape attitudes toward police (e.g., Brown and Benedict 2002; Schafer et al. 2003; Weitzer and Tuch 2005; Wu et al. 2009; Wu 2014). While scholars have examined the consequences of police use of force for political participation (Cohen et al. 2019), most research has focused on attitudinal effects. For example, Boudreau et al. (2019) tested the effects of text-based descriptions of use of force. All respondents were provided with a brief summary of a police shooting. One treatment group was provided statistics about the use of force; a second group was given information about reforms to mitigate the likelihood of such events. They found that the effects of the information for attributions of blame and attitudes toward the local police were contingent on the respondents' race and whether they lived in the area. Peffley and Hurwitz (2010) also used a vignette, manipulating the victim's race to understand judgments about the fairness of a particular investigation and punishment preferences.

Other scholars have focused on the effects of videos. In Testa and Dietrich's (2017) experiments, all respondents received the same unedited body-camera video of a traffic stop that led to a complaint of officer misconduct. They manipulated the title of the video and the presence/absence of a statement from a police chief to signal whether the video corroborated the misconduct charge. They examined the effects of these manipulations for attitudes about that specific situation, including perceptions of the legitimacy of the stop, appropriateness of the officer's behavior, and whether or not racial profiling occurred. Turner et al. (2019) compared dashcam and body-camera footage. Across several studies, they demonstrated that because the officer is less visible on body-cameras, viewers were less inclined to judge their actions as intentional (see also Culhane et al. 2016).

These studies considerably advanced our understanding of the effects of information about police use of force, but important gaps remain in the literature. One notable limitation concerns the outcomes. Most of these studies restrict their analyses to perceptions of the *specific* situation and individuals involved, but as a result, we know little about the *broader* effects of controversial use of force for general attitudes toward police. A video may impact perceptions of whether a particular shooting was justified, but does that video also have more general feedback effects such as

triggering emotional responses, altering beliefs about the pervasiveness of excessive force, and influencing support for body-cameras?

Additionally, such stories may affect people's trust in and approval of police, and the perceived legitimacy of law enforcement. Indeed, some have argued that trust in police is eroding and that the justice system faces a crisis of legitimacy (Braga 2016; National Institute of Justice 2013; Zimring 2020). Sherman (2020, p. 12) suggested that police risk a "loss of legitimacy in the eyes of the public" due to perceptions of "emotion-driven headlines about shocking individual cases of violence... and fatal police shootings." Despite these concerns, we have little empirical evidence concerning the feedback effects of use of force information for such attitudes.

Finally, most experiments to-date provided all respondents a baseline description or video of an altercation between police and a civilian, and then manipulated particular features of this information to directly test their effects. However, this approach may mask the effects of learning about the altercation relative to not doing so. A distinction between prior work and this study is our use of a "no information" control group as a point of comparison. Further, our treatments are not mediated by commentators who may shape how respondents react to the events depicted. This is critical, as we know little about the effects of receiving use of force stories/videos relative to not receiving them.

Theory and Hypotheses

Some attitudes toward police appear entrenched (Mullinix and Norris 2019). Motivated reasoning suggests that people often seek out information that bolsters their preexisting attitudes and counterargue messages that challenge their views, which creates obstacles to attitude change (Taber and Lodge 2006). Indeed, most of the studies above only found effects for subsets of respondents; many treatment effects were conditional upon individual characteristics (e.g., respondent race, geography, prior beliefs about police, racial stereotypes). However, we suggest that controversial use of force stories are highly impactful and previous research may not have entirely captured their feedback effects.

There are theoretical reasons to expect substantial attitude change in response to controversial use of force stories. This information is often communicated to the public through episodic framing via narratives that focus on a specific event (Iyengar 1991). Scholars have noted the power of episodic framing for attitude change (e.g., Busby et al. 2018), and such frames are particularly influential when they prompt emotional reactions (Aaroe 2011). Certainly, news stories may include statistical information and thematic frames (e.g. Boudreau et al. 2019), but individual narratives are often the main feature. This is critical because narratives prompt counterfactual thinking, which facilitates attitude change (Tal-Or et al. 2004). Narratives also persuade through "transportation" whereby the message recipient identifies with the individuals in the story and transports themselves into the situation (Green and Brock 2000). An entire literature has developed around the Narrative Policy Framework, highlighting the ability of narratives to shape policy preferences (Shanahan et al. 2018).

Given the literature on the persuasiveness of narratives, we anticipated that information about controversial police use of force would prompt a wide range of feedback effects. First, we hypothesized that it would prompt negative emotional responses such as anger, anxiety, and feeling upset. We are unaware of research in this domain that examines emotional responses, but episodic frames are known to prompt such reactions (Aaroe 2011), and a controversial situation involving an officer injuring or killing a civilian seems likely to prompt negative reactions. Thus, an overlooked and important feedback effect of police use of force is that it may make the public angry, anxious, and upset.

H1 (Emotions): People presented with text and/or video of controversial police use of force will report higher levels of negative emotional reactions than people who do not receive this information.

A second feedback effect is in regard to attitudes toward law enforcement and beliefs about excessive force. Although a single news article or video focuses on an isolated situation, reading about or watching a police officer harm a civilian may influence general trust in police. Most research has examined whether learning about a use of force incident affected attitudes toward that altercation and the individuals involved, but we also must assess whether a single incident has spillover effects for public opinion generally. Ordinarily, the expectation is that broad effects only result from thematic frames, which situate information in a more general context and lead to more institutional attributions of blame (Iyengar 1991). However, news articles and videos showing police use of force incidents may be provocative enough to prompt feedback effects that spill over to more general attitudes about police. Previous research may have underestimated the potential of episodic frames to shape broader attitudes. For example, a story focusing on a single instance and controversial use of force may lead people to view excessive force as more pervasive in society and increase the belief that officers do not receive the appropriate consequences for their actions. Therefore, it is important to explore whether this information impacts beliefs about and attitudes toward police and law enforcement practices.

H2 (Police Attitudes): People presented with text and/or video of controversial use of force will report lower levels of trust in and approval of police than people who do not receive this information.

H3 (Excessive Force): People presented with text and/or video of controversial use of force will be more concerned about excessive force and will believe it is more pervasive than people who do not receive this information. The information will also reduce confidence in police training and whether officers receive the appropriate consequences for using excessive force.

Finally, news articles and videos depicting controversial use of force may prompt calls for policy change. While early research on episodic frames suggested that their effects might be constrained due to their singular focus (Iyengar 1991), we argue that some episodic frames have the power to transform policy preferences. Norris and Mullinix (2019) found narratives garnered support for police reforms designed to mitigate wrongful convictions and reduced support for the death penalty, and

Aaroe (2011) highlighted situations where episodic frames alter policy preferences. We think that people who view a video and/or read a story about controversial use of force may be inclined to support policies that promote greater police transparency and accountability. In particular, there has been a proliferation of body-cameras in policing (Engel, McManus, and Isaza 2020) and, although not without limitations, they provide some insight into what happens during altercations. Thus, we expected that people who learned about controversial, violent interactions between police and civilians would be more favorable toward requiring body-worn-cameras.

H4 (Body-Cameras): People presented with text and/or video of controversial use of force will report higher levels of support for requiring body-cameras than people who do not receive this information.

Research Design

To test the feedback effects of controversial police use of force, we implemented a survey-experiment in which people were randomly assigned to receive (or not receive) text-based descriptions and/or videos of a use of force scenario. Importantly, respondents were warned about the graphic nature of the information and informed that they could withdraw from the survey at any time in the consent form. Before respondents in video conditions were provided the clip, they were reminded about the graphic content they would be asked to view and informed that they could skip watching it.² This is critical to note because of the highly sensitive nature of this topic, and because such warnings are not uncommon in news media. Police use of force and, more generally, the relationship between police and communities, are sensitive issues and viewing these situations can be difficult and traumatic. Yet, these stories and videos have become a common element of media coverage and public discourse. Thus, trying to understand their effects on public opinion is an important task. Still, we tried to approach this project with care and empathy. The results we present below with respect to emotional responses should prompt researchers to use these types of treatments with caution. This study was approved by the Institutional Review Board. Participation only included adults and was voluntary, and the survey itself was positively evaluated by respondents.³

² The informed consent stated, “It is possible that reading or viewing information about these events may cause some level of emotional or psychological discomfort. Please be aware that you are free to end your participation in the survey and exit at any time.” The screen before the video stated, “The video shows a controversial altercation between a police officer and a civilian, and this may be uncomfortable for some people to watch. If you do not feel that you can watch the video in its entirety, just continue forward in the survey.” The caption under the video stated “Please click the play button to watch the video. The video contains graphic content.”

³ Dynata participants rate their overall satisfaction with surveys they complete. Their average satisfaction rating across all recent studies is 75 (out of 100); our study received a satisfaction rating of 86.

Manipulations and Stimuli

Our study focused on common ways that use of force cases are communicated to the public: text-based articles and videos. People typically encounter this information through online news stories and/or video clips, and as such, we test our hypotheses with different modes of communicating the information. A vast literature highlights the power of visual imagery to elicit strong emotional responses to news (e.g., Mutz and Reeves 2005; Powell et al. 2015) and it is possible that videos might have more pronounced effects than the text. However, a news article and a video about the exact same scenario may differ in myriad ways (Crigler et al. 1994), and any differences in their effects could be due to many features (e.g., an image, a sound, a particular word used in the text). Given this and the focus of our hypotheses, directly comparing videos to text is not our main goal.

We used several criteria to select treatment stories. First, for external validity, they were based on real-world cases for which there was both video and text-based news accounts. Although this created opportunities for prior-treatment exposure, any pre-treatment effects likely dampened our treatment effects (Druckman and Leeper 2012). Second, we focused on controversial police use of force against a Black citizen that occurred after a traffic stop. Traffic stops are a common police interaction and are associated with racial disparities (Epp et al. 2014).⁴ Third, we selected scenarios with conflicting accounts of what transpired, since this creates a realistic, albeit more conservative test of our hypotheses (see Testa and Dietrich 2017). Fourth, we selected both a non-lethal altercation that resulted in a civilian injury and a lethal altercation that led to a civilian's death. By picking a situation involving deadly force, we indirectly selected a more salient event that received considerable media attention and is more subject to pretreatment effects. The non-lethal altercation represents a situation that is more commonplace, but also received less media coverage and is less likely to have been recognized.⁵

Using these criteria, we selected two incidents. The lethal use of force case was the altercation that resulted in the death of Philando Castile in Minnesota, a Black man who was driving in a car with his girlfriend and her four-year-old daughter. Castile was stopped by Officer Jeronimo Yanez because, according to Yanez, the driver resembled a robbery suspect (Jacob and Francis 2016). Castile informed Yanez that he had a firearm and, after a brief dispute, Yanez fired seven shots, hitting Castile

⁴ For statistics about police contacts, use of force, and differences by race in the U.S., see Davis et al. (2018).

⁵ This design does not account for two other important situations: non-lethal/high salience and lethal/low salience. Our design, instead, focuses on the conditions that provide the broadest range of potential effects. The low-salience non-lethal situations are abundant in the real world, and there are reasons to question how impactful they might be (relative to the other options). They also help us avoid issues associated with pretreatment exposure that might be tied to the high-salience case. That we largely find the same pattern of results for both situations (at the opposing ends of the spectrum) leads us to believe that the conditions we did not include would likely have similar effects. With respect to pretreatment, toward the end of the survey, we asked, "How familiar are you with circumstances surrounding the shooting of Philando Castile?" If we restrict our analysis to the control group (which is uncontaminated by treatments), 59.44% of respondents said "not familiar at all."

Table 1 Experimental conditions

	Non-lethal	Lethal
Control	Group 1 (no text or video)	
Text	Group 2	Group 3
Video	Group 4	Group 5
Text + video	Group 6	Group 7

five times. The incident was captured on the police car's dashcam and livestreamed on Facebook from the passenger's cell phone.

In the non-lethal situation, Timothy Harris, a Black male, was stopped and detained in Topeka, Kansas because of a parking issue. After a verbal exchange, Harris exited the vehicle. Moments later, he was wrestled down by the officer. Harris's jaw was broken and his face bloodied and pepper-sprayed. As with so many similar cases, the controversy centers on whether Harris resisted arrest and if the officer felt threatened (Moore 2018).

The Harris and Castile stories have similarities. Both involve a minority civilian subjected to a traffic stop. In both situations, there were questions about the extent to which the officer felt threatened. Furthermore, in both instances, there is a female passenger in the vehicle who is vocal during the stop. To be sure, the situations differ in many respects as well. For this reason, our main focus is not a direct comparison of the non-lethal and lethal-treatments, but rather to compare the effects of information about each situation relative to people who are presented with no information (the control group). This design allows us to test our hypotheses with respect to two different contexts.

We randomly assigned 2,919 survey-respondents to one of seven conditions (Table 1). The texts and videos are provided in the Supplemental Materials. We based our text treatments on original news stories, but edited them to make their structures similar. We removed the names of the people involved in our non-lethal treatment so as to not inadvertently cue other considerations. Due to the high-profile nature of the Castile shooting, we did not remove the names in our lethal treatment. Like the original news coverage, our text treatments identified the person stopped as a Black male. Other than minor edits to the length of videos, we used the unedited versions as displayed in original coverage.⁶ The YouTube videos were embedded in the Qualtrics instrument to provide greater experimental control and ensure that any effects were not influenced by ads, suggested videos, or viewer comments. The non-lethal video consists entirely of officer body-camera footage. The first half of the lethal video treatment shows dashcam footage, but the second part includes both the dashcam and the passenger's cell phone footage. We included the audio in both

⁶ The original non-lethal video was approximately nine minutes, but included the officer exiting his vehicle and walking to the civilian's car and a period after the main incident, in which nothing of note is visible. We cut just over two minutes to focus the treatment video on the time from the beginning of the interaction until the scene was secured.

videos. For combined text and video conditions, the embedded video link and text description of the events were presented on the same screen.

Sample and Plan for Analysis

We implemented the survey-experiment with Dynata, which provides an online opt-in panel of respondents with samples drawn to match characteristics of the U.S. adult population.⁷

Our hypotheses focus on four categories of outcome variables: emotional responses, attitudes toward police, beliefs about excessive force, and support for body-cameras (see Supplemental Materials for wording).

To test the hypotheses, we employ OLS regression.⁸ Due to the measures' limited scales, we also ran ordered-logistic regression models (Supplemental Materials). Our primary focus is on the feedback effects of use of force on public opinion, and, as such, we concentrate on average treatment effects. However, we also perform regressions controlling for race, gender, education, income, ideology, crime victimization, worry about victimization, feelings of safety, experiences with police, neighborhood quality, and racial resentment (Supplemental Materials). We note instances where inferences about statistical significance differ by modeling strategy. We present the results for each category of feedback effects separately.⁹

Results and Analysis

Emotional Responses

We measured how exposure to the experimental treatments influenced respondents' self-reported levels of **anger** (1–5 scale, *not at all angry* to *extremely angry*), **anxiety** (1–5, *not at all anxious* to *extremely anxious*), and feeling **upset** (1–5, *not at all upset* to *extremely upset*).¹⁰

In line with our first prediction, people presented with textual news stories and/or video footage of incidents that involved controversial police use of force expressed much higher levels of **anger**, **anxiety**, and feeling **upset** relative to those in the control condition ($p < 0.01$, for each treatment; Table 2). The substantive movement on the response scales can be easily interpreted as it reflects the size of each regression

⁷ The sample (collected in June 2019) was 57% female, 66.61% non-Hispanic White, 12.29% non-Hispanic black, and 38.65% liberal. The median education level was Associate's degree, and median income was 50–59 k. The sample was matched based on age, gender, ethnicity, region, and partisanship.

⁸ The data and replication code for all analyses is available at the following link: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/Q7SFJW>.

⁹ Treatment effects may be mediated through any number of variables (e.g., emotional responses). We did not establish mediation hypotheses and did not design our experiment to test mediation. Tests for mediation using our design require many assumptions that are often untestable and unjustified.

¹⁰ The wording of these questions allows for consistency across conditions, but we recognize that they do not tell us precisely at whom or what the emotions are directed.

Table 2 Emotional responses

Experimental condition	(1) Anger	(2) Anxiety	(3) Upset
Non-lethal text	1.114*** (0.0707)	0.439*** (0.0747)	1.071*** (0.0737)
Lethal text	1.538*** (0.0754)	0.768*** (0.0775)	1.582*** (0.0764)
Non-lethal video	1.458*** (0.0809)	1.049*** (0.0840)	1.562*** (0.0822)
Lethal video	1.971*** (0.0768)	1.302*** (0.0832)	2.065*** (0.0788)
Non-lethal text + video	1.532*** (0.0800)	1.001*** (0.0830)	1.552*** (0.0816)
Lethal text + video	1.994*** (0.0795)	1.289*** (0.0833)	2.113*** (0.0770)
Constant	1.273*** (0.0340)	1.648*** (0.0472)	1.381*** (0.0395)
Observations	2919	2919	2911
R ²	0.190	0.108	0.214

Coefficients are based on OLS regression models. The baseline is the control condition

Robust standard errors in parentheses

Two-tailed tests of significance: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

coefficient. The impact of the experimental treatments is remarkable in terms of the magnitude of the shifts they produced. For example, relative to the control condition, exposure to the *Lethal Text + Video* condition increased **anger** and feeling **upset** by about 2 points on the 5-point response scales, and increased reported **anxiety** by more than 1 point. As one might expect, the *Lethal Video* alone or in combination with the related text elicited the largest shift in negative emotions relative to the control condition. The *Non-Lethal Video* condition had a similar effect on negative emotional responses, alone or in combination with the textual news story.

Attitudes Toward Police

We measured how exposure to the experimental treatments influenced respondents' attitudes toward the police by asking: (1) their **approval** of the way police in the United States are doing their job (1–7 scale, *strongly disapprove* to *strongly approve*); (2) how much they **trust** police officers to treat people fairly (1–7, *no trust at all* to *complete trust*); (3) the degree to which they agreed that “people’s basic **rights** are well-protected by police” (1–7, *strongly disagree* to *strongly agree*); and (4) the extent to which they agreed that police “can be trusted to make **decisions** that are right for the people in their communities” (1–7, *strongly disagree* to *strongly agree*).

Table 3 Attitudes toward police

Experimental condition	(1)	(2)	(3)	(4)
	Approval of police	Trust to treat fairly	Rights protected	Trust decisions
Non-lethal text	−0.504*** (0.120)	−0.178* (0.107)	−0.218* (0.115)	−0.186 (0.113)
Lethal text	−0.728*** (0.121)	−0.379*** (0.109)	−0.318*** (0.117)	−0.315*** (0.116)
Non-lethal video	−0.554*** (0.131)	−0.303** (0.120)	−0.401*** (0.128)	−0.379*** (0.128)
Lethal video	−0.681*** (0.128)	−0.299*** (0.113)	−0.385*** (0.122)	−0.366*** (0.121)
Non-lethal text + video	−0.611*** (0.131)	−0.324*** (0.118)	−0.410*** (0.125)	−0.342*** (0.123)
Lethal text + video	−0.801*** (0.128)	−0.451*** (0.116)	−0.496*** (0.126)	−0.461*** (0.121)
Constant	4.395*** (0.0822)	4.164*** (0.0778)	4.508*** (0.0814)	4.537*** (0.0804)
Observations	2915	2902	2878	2852
R ²	0.017	0.007	0.007	0.007

Coefficients are based on OLS regression models. The baseline is the control condition

Robust standard errors in parentheses

Two-tailed tests of significance: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

In support of H2, exposure to an instance of police use of force generally decreased approval of and lowered trust in police across treatments relative to the control condition (Table 3). The effect of the non-lethal text treatment in isolation decreased **approval** of ($p < 0.01$), and slightly reduced **trust** in police ($p < 0.10$) and perceptions that people’s **rights** are well-protected by police ($p < 0.10$). The non-lethal text also lowered respondents’ perceptions that police make **decisions** that are right for the people in their communities (Model 4, Table 3); however, this coefficient is not significant. Respondents who were exposed to the non-lethal video in isolation reported lower levels of **approval** and **trust**, and greater skepticism that people’s **rights** are protected and that police make **decisions** that are right for their communities ($p < 0.05$). The results were nearly identical, but slightly larger, when respondents were presented with both the news story and video of non-lethal force ($p < 0.01$, for each measure). Similarly, respondents who were presented with textual and/or video footage of an officer-involved shooting (i.e., lethal force) expressed lower levels of **approval** and **trust** in police, and greater skepticism that police protect people’s basic **rights** and make **decisions** that are right for their communities ($p < 0.01$).

Table 4 Beliefs about excessive force

Experimental condition	(1)	(2)	(3)	(4)
	How often	Confidence in training	Confidence in conseq	Personal concern
Non-lethal text	0.147** (0.0593)	-0.205* (0.119)	-0.321*** (0.124)	0.202 (0.130)
Lethal text	0.205*** (0.0605)	-0.377*** (0.119)	-0.306** (0.126)	0.138 (0.129)
Non-lethal video	0.185*** (0.0646)	-0.270** (0.127)	-0.245* (0.134)	0.335** (0.139)
Lethal video	0.181*** (0.0624)	-0.332*** (0.122)	-0.207 (0.131)	0.335** (0.135)
Non-lethal text + video	0.172*** (0.0638)	-0.276** (0.126)	-0.233* (0.131)	0.385*** (0.142)
Lethal text + video	0.228*** (0.0651)	-0.489*** (0.123)	-0.413*** (0.132)	0.506*** (0.137)
Constant	3.050*** (0.0419)	3.645*** (0.0830)	3.469*** (0.0905)	2.913*** (0.0927)
Observations	2905	2908	2899	2885
R ²	0.006	0.006	0.004	0.006

Coefficients are based on OLS regression models. The baseline is the control condition

Robust standard errors in parentheses

Two-tailed tests of significance: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Excessive Force Beliefs

We measured how exposure to the experimental treatments affected respondents' perceptions about **how often** police use excessive force (1–5 scale, *never to almost always*), confidence in officer **training** to avoid excessive force (1–7, *not at all confident to extremely confident*), belief that police officers face **appropriate consequences** when they use excessive force (1–7, *not at all confident to extremely confident*), and **personal concern** that they or someone they know “might be the target of excessive force by police” (1–7, *not concerned at all to extremely concerned*).

Exposure to information about police using physical force consistently *increased* respondents' feelings about **how often** police officers use excessive force ($p < 0.05$, Table 4), *decreased* their confidence that police officers receive adequate **training** to avoid using excessive force ($p < 0.1$ for non-lethal text, $p < 0.05$ for other groups), and, at times, *reduced* confidence that officers who are involved in these situations will face **appropriate consequences**.¹¹ Respondents who were exposed to videos or the combination of text and video footage also expressed greater **personal concern** that they or someone they know might be the target of excessive force ($p < 0.05$).

¹¹ In the model with controls, the effect of the *Non-Lethal Video* for confidence in **appropriate legal consequences** is not significant.

Table 5 Support for body-cameras

Experimental condition	(1) Support for body-cameras
Non-lethal text	0.147* (0.0890)
Lethal text	0.211** (0.0895)
Non-lethal video	0.216** (0.0906)
Lethal video	0.208** (0.0880)
Non-lethal text + video	0.164* (0.0928)
Lethal text + video	0.208** (0.0901)
Constant	5.975*** (0.0626)
Observations	2894
R ²	0.003

Coefficients are based on OLS regression models. The baseline is the control condition

Robust standard errors in parentheses

Two-tailed tests of significance: ***p < 0.01; **p < 0.05; *p < 0.1

There is impressive consistency in the overall effects of the experimental treatments with respect to perceptions about the use of excessive force, irrespective of whether respondents read a news story, watched video footage, or both. News articles and videos showing controversial use of force incidents thus appear powerful enough to stimulate feedback effects that spill over to more general beliefs about the police and the degree to which they are held accountable for their actions.

Support for Body-Cameras

We measured the degree to which respondents support requiring police officers to wear **body-cameras** (1–7 scale, *strongly oppose* to *strongly support*). As expected (H4), exposure to a controversial use of force incident increased support for requiring police to wear **body-cameras** (Table 5). Although a high level of support was expressed by respondents in the control condition (i.e., the constant term is 5.975), higher levels of support were observed across all of the experimental treatments relative to the control condition.

Additional Tests

Our hypotheses concern feedback effects for public opinion, so we focused mainly on average treatment effects for the entire sample. Yet, we also explore whether our results are moderated by racial resentment and respondent race.

The results are presented in the Supplemental Materials, but our analyses make clear that racial resentment has the potential, at times, to moderate responses to use of force information such that non-Hispanic Whites who score higher on racial resentment show muted treatment effects. There were some instances where people who scored high on racial resentment did not significantly shift attitudes in the expected direction, however, even people at the highest end of our racial resentment scale often revealed significant shifts in their emotions and attitudes in the hypothesized direction, albeit smaller in magnitude. We do not draw bold conclusions from these results, in part, because racial resentment was measured post-treatment (see Montgomery et al. 2018).

With respect to respondent race and for reasons associated with sample size, we compared non-Hispanic Whites and non-Hispanic Blacks. Although there were differences across outcomes, in general, responsiveness to the treatments was relatively homogenous; a treatment effect that was statistically significant for White respondents was often significant, and in the same direction, for Black respondents. Many treatment effects are statistically indistinguishable between White and Black respondents. There were, however, some differences in the magnitude of effects. For example, the treatments prompted significant shifts in negative emotional responses for White respondents, but these appeared slightly more pronounced for Black respondents. We hesitate to draw bold conclusions about these results because we are cautious to avoid selectively picking outcomes where we observed racial differences, especially since we did not formalize any expectations about the potential moderating effects of race differing across outcomes. We see our study as an initial step in understanding the feedback effects of use of force information and encourage future researchers to oversample particular populations and disentangle how respondent characteristics and specific story features influence feedback.

Discussion and Conclusion

There has been a resurgence in critical public discourse around policing in the United States, raising questions about the disparate treatment of minority citizens by law enforcement (e.g., Epp et al. 2014). These conversations have been influenced by stop-and-frisk practices (e.g., White and Fradella 2016) and police contributions to wrongful convictions (e.g., Covey 2013). Perhaps the most prominent element of these conversations, however, is the proliferation of stories about police use of force, as seen in the recent movement generated after the death of George Floyd. The prevalence of such cases in the media and popular dialogue prompts questions about their feedback effects for public opinion.

We found that when controversial use of force cases “go public,” they have a remarkable effect on citizens’ beliefs about police, potentially undermining the

perceived legitimacy of a major governmental institution. Learning about such scenarios—be it through news stories and/or video footage, and whether the incident involved lethal or non-lethal physical force—raised anger, anxiety and feelings of being upset among our respondents. People expressed far lower levels of approval of and reduced trust in police, greater skepticism about the degree to which the police protect people’s rights, and increased levels of concern about whether the police make decisions that are right for people in their communities. Our treatments also led respondents to view use of force as more frequent, raised questions about the adequacy of police training, reduced confidence that officers face appropriate consequences, and raised concerns that they or someone they know might be more likely to be the victim of police use of excessive force. Finally, we found that these incidents increased people’s support for requiring police to wear body-cameras. In contrast to prior work on episodic frames that emphasized their effects for individual attributions of responsibility (e.g. Iyengar 1991), our results suggest that certain episodic frames influence broader opinions, including general attitudes toward police. In short, episodic frames and narratives may be more powerful than previously thought. However, we did not evaluate the persistence of the opinion shifts we reported, and we encourage future research to employ over-time designs that can provide insights into the duration of the attitude change our treatments produced.

Understanding the dynamics that shape public preferences regarding criminal justice generally, and policing specifically, is critical. While it is often difficult to shift individuals’ attitudes and additional research is needed to unpack the specific features of information that are most influential, our study demonstrates that stories of controversial police use of force affect a range of attitudes. These findings are important for several reasons.

First, public opinion has the power to shape public policy, particularly on salient issues (Burstein 2003). This has been evident in the realm of criminal justice, for example, in relation to death penalty practices and policies (Baumgartner et al. 2008; Ekins 2016). Perhaps such influence holds for police practices as well, which may be especially important given the extent of critical coverage in recent years. Further, it is worth considering potential effects within the context of the movement toward evidence-based policing practices. Willis and Toronjo (2019) suggest that the use of stories may be an effective strategy to garner support for police reforms, and our results support this notion, in that stories prompt changes in public attitudes. It is plausible that such narratives also influence attitudes among officials and lawmakers, thus generating an avenue for reform.

Beyond policy reform, our study has implications for policy feedback theory. Schattschneider (1935, p. 288) argued that “new policies create new politics,” and, in recent years, there has been a resurgence of research focused on the feedback effects of various policies (Mettler and SoRelle 2018). This literature shows that personal experiences with public policies and police may prompt feedback effects (e.g. Laniyonu 2018, 2019; Lerman and McCabe 2017), but our findings suggest that scholars need to think more broadly about the feedback effects of government actions. When police, as government representatives, use force against citizens, such actions prompt nontrivial public opinion feedback effects, even among people who do not directly experience it. These actions indirectly

generate feedback effects when they enter the public sphere. As such, government actions—even if experienced vicariously—can have profound effects on the citizenry when they are publicized.

It is imperative that scholars continue to explore the ways in which public attention on policing affects citizens' attitudes. Uncovering how the public responds to information about law enforcement is vital to understanding the relationship between police and communities, which itself cannot be divorced from broader conversations about race relations in the United States. Thus, further developing research in this area of the utmost political and social importance.

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