

POLICE BODY-WORN CAMERAS*

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Since the summer of 2014, community members, politicians, and police executives across the country have called for greater police accountability and improvements in police-community relations. Body-worn cameras (“BWCs”) are widely seen as serving both ends. Today, thousands of police agencies are exploring, adopting, and implementing body-cam programs. BWCs are here, and more are coming. Legal scholars have largely responded to this burgeoning new technology by addressing it through the framework of traditional discussions about privacy, police accountability, or the rules of evidence. Relatively few articles have gone further by identifying the potential benefits of BWCs and critically examining whether the adoption of this technology by police agencies can truly do what many proponents claim. This Article falls solidly into the latter camp.

Body-worn cameras are a tool. Tools should be used to advance normatively desirable goals when they are an efficient way of accomplishing or facilitating those goals. Body-worn cameras, like any tool, should not be used when the goal itself is inappropriate or when the tool is ill-suited for the job at hand.

This Article explores the limits of BWCs as a tool. It does so by first reviewing the historical justifications for, implementation of, and lessons learned from an earlier iteration of police video recording technology: in-car cameras. It then offers a simplified way of conceptualizing the multitudinous advantages that BWC proponents have identified, putting them into three categories: symbolic benefits, behavioral benefits, and informational

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benefits. This classification is a necessary first step in police agencies and communities articulating what they hope to achieve with a BWC program. Whether body cams will advance the desired goals depends on the practical limitations of the technology and our ability to interpret the resulting video footage as well as the policies and procedures that govern implementation. The latter half of the paper is dedicated to a critical examination of the practical limitations and policy considerations that will ultimately determine whether body-worn cameras can live up to the hype.

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INTRODUCTION

In 2013, Judge Shira Scheindlin found that the New York Police Department’s widespread and aggressive use of stop-and-frisks had violated civilians’ constitutional rights.¹ She ordered the agency to “institute a pilot project in which body-worn cameras [would] be worn for a one-year period by officers on patrol.”² Having video footage of officers’ interactions with civilians, Judge Scheindlin wrote, “will serve a variety of useful functions.”³ That sentiment was popularized in the aftermath of Officer Darren Wilson’s fatal shooting of Michael Brown in the then little-known St. Louis suburb of Ferguson, Missouri—among the first in a series of violent incidents

1. *Floyd v. City of New York*, 959 F. Supp. 2d 540, 658 (S.D.N.Y. 2013).

2. *Id.* at 685.

3. *Id.*

that attracted public scrutiny and widespread criticism of the police.⁴ Community members, politicians, and police executives across the

4. Other incidents in and after the summer 2014 have kept a public spotlight on policing, including, but certainly not limited to, the July 17, 2014, asphyxiation of Eric Garner, who was selling loose cigarettes; the August 5, 2014, shooting of John Crawford, who was in a Walmart store holding a pellet rifle he had picked up in one of the aisles; the November 20, 2014, shooting of Akai Gurley, who was shot while his girlfriend was braiding his hair in an apartment stairwell; the November 22, 2014, shooting of Tamir Rice, who was playing with a realistic-looking pellet gun in a public park; the April 4, 2015, shooting of Walter Scott, who was fleeing on foot from a traffic stop; the October 20, 2014, shooting of Laquan McDonald, who was walking down the street with a knife; the April 12, 2015, death of Freddie Gray, who had been arrested and put into a prisoner transport van; the June 5, 2015, use of force against children at a pool party in McKinney, Texas; the July 19, 2015, shooting of Samuel DuBose during a traffic stop; the August 7, 2015, shooting of Christian Taylor, who had broken into a car dealership; the July 5, 2016, shooting of Alton Sterling, who had been tackled by officers after allegedly threatening someone with a gun; the July 6, 2016, shooting of Philando Castile, who informed an officer during a stop that he was carrying a firearm; and the July 10, 2015, traffic stop and arrest of Sandra Bland, who committed suicide in a jail cell three days later. Ryllie Danylko, *Cleveland Police Officer Fatally Shoots 12-Year-Old Tamir Rice*, CLEVELAND PLAIN DEALER (Nov. 24, 2014), http://www.cleveland.com/metro/index.ssf/2014/11/cleveland_police_officer_fatal.html [https://perma.cc/G299-SKVM]; Quinn Ford, *Cops: Boy, 17, Fatally Shot by Officer After Refusing to Drop Knife*, CHI. TRIBUNE (Oct. 21, 2014), <http://www.chicagotribune.com/news/local/breaking/chi-chicago-shootings-violence-20141021-story.html> [https://perma.cc/6CUF-NDGC]; Joseph Goldstein & Nate Schweber, *Man's Death After Chokehold Raises Old Issue for the Police*, N.Y. TIMES, July 19, 2014, at A1; Elahe Izadi, *Ohio Wal-Mart Surveillance Video Shows Police Shooting and Killing John Crawford III*, WASH. POST (Sept. 25, 2015), https://www.washingtonpost.com/news/post-nation/wp/2014/09/25/ohio-wal-mart-surveillance-video-shows-police-shooting-and-killing-john-crawford-iii/?utm_term=.cb8846245191 [https://perma.cc/W7E8-YTCT]; Michael E. Miller et al., *How a Cellphone Video Led to Murder Charges Against a Cop in North Charleston, S.C.*, WASH. POST (April 8, 2015), https://www.washingtonpost.com/news/morning-mix/wp/2015/04/08/how-a-cell-phone-video-led-to-murder-charges-against-a-cop-in-north-charleston-s-c/?utm_term=.0c8b36b3a957 [https://perma.cc/P58Y-EFY9]; David Montgomery, *New Details Released in Sandra Bland's Death in Texas Jail*, N.Y. TIMES (July 20, 2015), <https://www.nytimes.com/2015/07/21/us/new-details-released-in-sandra-blands-death-in-texas-jail.html?smid=pl-share> [https://perma.cc/67MX-NEDQ (dark archive)]; Richard Pérez-Peña, *University of Cincinnati Officer Indicted in Shooting Death of Samuel Dubose*, N.Y. TIMES (July 29, 2015), <https://www.nytimes.com/2015/07/30/us/university-of-cincinnati-officer-indicted-in-shooting-death-of-motorist.html> [https://perma.cc/L8AP-FB4N (dark archive)]; Kristine Phillips, *Black Teen Who Was Slammed to the Ground by a White Cop at Texas Pool Party Sues for \$5 million*, WASH. POST (Jan. 5, 2017), https://www.washingtonpost.com/news/post-nation/wp/2017/01/05/black-teenager-who-was-slammed-to-the-ground-at-texas-pool-party-sues-ex-cop-city-for-5m/?utm_term=.f8a9048cfef8 [https://perma.cc/QWM9-C9R8]; Kevin Rector, *The 45-Minute Mystery of Freddie Gray's death*, BALT. SUN (Apr. 25, 2015), <http://www.baltimoresun.com/news/maryland/freddie-gray/bs-md-gray-ticker-20150425-story.html> [https://perma.cc/QUZ6-KEZR]; Rebecca R. Ruiz, *U.S. Won't Charge Two Officers In a 2016 Killing of a Black Man*, N.Y. TIMES, May 3, 2017, at A1, A11; *Police Shooting During Traffic Stop Leaves Minnesota Man Dead*, CBS NEWS (July 7, 2016), <https://www.cbsnews.com/news/police-shooting-during-traffic-stop-leaves-minnesota-man-dead-family/> [https://perma.cc/QB2P-9KBP]; Liam Stack, *Answers Sought in Another Police Shooting*, N.Y. TIMES, Aug. 9, 2015, at A19; Michael Wilson, *City Officer's Errant Shot Kills an Unarmed Man*, N.Y.

country called for greater police accountability and improvements in police-community relations. Body-worn cameras (“body cams” or “BWCs”) were and are widely seen as serving both ends.

The combination of public demand and federal or private funding has led thousands of police agencies to explore, adopt, and implement body-cam programs. A 2015 survey by the Major Cities Chiefs Association and the Major County Sheriffs’ Association found that ninety-five percent of surveyed agencies had either implemented or were committed to implementing a BWC program.⁵ By the middle of 2016, half of the seventy largest cities in the United States had begun using or committed to using BWCs.⁶ In November of that year, a market survey commissioned by the National Institute of Justice identified sixty-six different BWC models by dozens of different vendors.⁷ Competition between the largest vendors was fierce. In April 2017, TASER International officially changed its name to Axon—the name of its market-dominating body-cam system—and offered all interested police agencies free cameras for a year.⁸

Body-worn cameras are here, and more are coming.⁹ It is not difficult to figure out why. As Howard Wasserman has pointed out:

Supporters promote body cameras as a panacea; they are spoken of as the singularly effective solution to the problem, able to prevent “another Ferguson.” And the public perceives them as that comprehensive cure to the problem. Video tells us exactly what happened, entirely eliminates the he-said/he-said

TIMES, Nov. 22, 2014, at A1, A3. Whether any of the officers involved in these incidents acted appropriately or inappropriately is outside the scope of this discussion; I identify the incidents for the limited point of noting that they have drawn substantial and sustained public attention to policing.

5. LAFAYETTE GRP., MAJOR CITIES CHIEFS & MAJOR CTY. SHERIFFS, SURVEY OF TECH. NEEDS—BODY WORN CAMERAS ii (2015), <https://assets.bwbx.io/documents/users/ijjWHBFdfxIU/rvnT.EAJQwK4/v0> [<https://perma.cc/QD3P-VUC2>].

6. Rachel Lerman, *Body Cameras Now in Half of Big City Police Departments*, SEATTLE TIMES (July 7, 2016), <https://www.seattletimes.com/business/technology/body-cameras-now-in-half-of-big-city-police-departments/> [<https://perma.cc/V7RM-CLEZ>].

7. VIVIAN HUNG, STEVEN BABIN & JACQUELINE COBERLY, A MARKET SURVEY ON BODY WORN CAMERA TECH. 1–9 (2016), <https://www.ncjrs.gov/pdffiles1/nij/grants/250381.pdf> [<https://perma.cc/LXD5-SYQF>].

8. Josh Sanburn, *The Company that Makes Tasers Is Giving Free Body Cameras to Police*, TIME (Apr. 5, 2017), <http://time.com/4726775/axon-taser-free-body-cameras-police/> [<https://perma.cc/27BN-J6AF>].

9. Exactly *where* they are coming may depend on local characteristics. *See, e.g.*, Jeffrey S. Nowacki & Dale Willits, *Adoption of Body Cameras by United States Police Agencies: An Organisational Analysis*, 26 POLICING & SOC’Y 1 (2016) (finding that police agencies that identify as technological innovators are more likely to adopt BWCs, but “agencies with large operating budgets and agencies represented by collective bargaining units are less likely” to adopt them).

ambiguity that often characterizes police-citizen encounters, and deters misbehavior by police and citizens.¹⁰

The popular belief in the inherent superiority of video footage has led to what Mary Fan calls the “camera cultural revolution.”¹¹ The result, she predicts, is that “the future will be recorded.”¹²

Legal scholars have largely responded to this burgeoning new technology by addressing it through the framework of traditional discussions about privacy, police accountability, or the rules of evidence.¹³ Relatively few articles have gone further by identifying the potential benefits of BWCs and critically examining whether the adoption of this technology by police agencies can truly do what the

10. Howard M. Wasserman, *Moral Panics and Body Cameras*, 92 WASH. U. L. REV. 831, 833 (2015) (presenting exaggerated claims about body cameras as a foil).

11. Mary D. Fan, *Justice Visualized: Courts and the Body Camera Revolution*, 50 U.C. DAVIS L. REV. 897, 907–08 (2017).

12. *Id.* at 928, 934.

13. See, e.g., Mary D. Fan, *Privacy, Public Disclosure, Police Body Cameras: Policy Splits*, 68 ALA. L. REV. 395, 442 (2016); Stephen E. Henderson, *Fourth Amendment Time Machines (And What They Might Say About Police Body Cameras)*, 18 U. PA. J. CONST. L. 933, 972 (2016); Martina Kitzmueller, *Are You Recording This?: Enforcement of Police Videotaping*, 47 CONN. L. REV. 167, 170–73 (2014); Rachel Levinson-Waldman, *Hiding in Plain Sight: A Fourth Amendment Framework for Analyzing Government Surveillance in Public*, 66 EMORY L.J. 527, 614 (2017); Kami Chavis Simmons, *Body-Mounted Police Cameras: A Primer on Police Accountability vs. Privacy*, 58 HOW. L.J. 881, 884 (2015); Mark Tunick, *Regulating Public Access to Body Camera Footage: Response to Iesha S. Nunes, “Hands Up, Don’t Shoot.”* 67 FLA. L. REV. F. 143, 150 (2016).

Body-worn cameras have also provided fodder for a slew of research by law students, the vast majority of which follows in the same vein. See, e.g., Bradley X. Barbour, Note, *Big Budget Productions with Limited Release: Video Retention Issues with Body-Worn Cameras*, 85 FORDHAM L. REV. 1725, 1755 (2017); Joey Dhillon, Note, *Police Body-Mounted Cameras: Balancing the Interests of Citizens and the State*, 25 S. CAL. REV. L. & SOC. JUST. 69, 85 (2015); Kelly Freund, Note, *When Cameras Are Rolling: Privacy Implications of Body-Mounted Cameras on Police*, 49 COLUM. J. L. & SOC. PROBS. 91, 132–33 (2015); V. Noah Gimbel, Note, *Body Cameras and Criminal Discovery*, 104 GEO. L.J. 1581, 1585–86 (2016); Mindy Lawrence, Note, *Lights, Camera, Action: The Age of Body Cameras in Law Enforcement and the Effects of Implementing Body Camera Programs in Rural Communities*, 91 N.D. L. REV. 611, 613 (2015); Dru S. Letourneau, Comment, *Police Body Cameras: Implementation with Caution, Forethought, and Policy*, 50 U. RICH. L. REV. 439, 475 (2015); Richard Lin, Note, *Police Body Worn Cameras and Privacy: Retaining Benefits While Reducing Public Concerns*, 14 DUKE L. & TECH. REV. 346, 365 (2016); Kyle J. Maury, Note, *Police Body-Worn Camera Policy: Balancing the Tension Between Privacy and Public Access in State Laws*, 92 NOTRE DAME L. REV. 479, 551 (2016); Iesha S. Nunes, Note, *“Hands Up, Don’t Shoot”: Police Misconduct and the Need for Body Cameras*, 67 FLA. L. REV. 1811, 1843 (2015); Ethan Thomas, Note, *The Privacy Case for Body Cameras: The Need for a Privacy-Centric Approach to Body Camera Policymaking*, 50 COLUM. J.L. & SOC. PROBS. 191, 227–28 (2017).

many proponents claim.¹⁴ This Article falls solidly into the latter camp.

This Article is not intended to endorse or condemn police body cams, but rather to identify and critically examine the potential benefits of the technology in light of its capabilities and limitations. For more than two years now, I have educated a variety of audiences about police BWCs, from state supreme court justices to practicing attorneys and from police executives to rank-and-file officers,¹⁵ and I

14. For exceptions, see Kami N. Chavis, *Body-Worn Cameras: Exploring the Unintentional Consequences of Technological Advances and Ensuring a Role for Community Consultation*, 51 WAKE FOREST L. REV. 985, 988–89 (2016); Caren Myers Morrison, *Body Camera Obscura: The Semiotics of Police Video*, 54 AM. CRIM. L. REV. 791, 795–96 (2017); Roseanna Sommers, *Developments in the Law: Policing* 128 HARV. L. REV. 1706, 1797 (2015); Wasserman, *supra* note 10, at 833.

15. I have presented on police body-worn cameras for judicial audiences (including the Conference of Chief Justices; the Midwest Conference of Chief Justices and State Court Administrators; the National Consortium on Racial & Ethnic Fairness in the Courts; the Ohio Judicial Conference; the Missouri Judicial Conference; the North Dakota Judicial Conference; the South Carolina Judicial Conference; the Indiana Bench/Bar Conference; and the Kansas Judicial Conference); legal audiences (including the Defense Research Institute; the South Carolina Solicitors' Conference; and the National Association of Criminal Defense Lawyers Body-Camera Task Force); police audiences (including the Chicago Civilian Office of Police Accountability; the Peace Officers' Association of Georgia; a United States Inspectors General Investigators Training conference; senior executives at the Bureau of Alcohol, Tobacco, Firearms, and Explosives; the Federal Law Enforcement Training Center; and the Legal Liability and Risk Management Institute); and technology audiences (including the International Association of Privacy Professionals and the National Institute of Standards and Technology Public Safety Video Analytics Working Group). I have also presented similar information at talks at Savannah Law School, William & Mary Law School, and in multiple out-of-class presentations here at the University of South Carolina School of Law. My work on BWCs has been featured widely in the media both domestically and internationally. See, e.g., Radley Balko, *Criminal Defense Attorney Group Releases Recommendations for Body Cameras*, WASH. POST (Mar. 22, 2017), https://www.washingtonpost.com/news/the-watch/wp/2017/03/22/criminal-defense-group-releases-recommendations-for-body-cameras/?utm_term=.582ccd752ef7 [<https://perma.cc/J5UT-FEZD>]; Radley Balko, *Police Cameras Are a Tool. It's How We Use This Tool That Matters*, WASH. POST (Mar. 15, 2016), https://www.washingtonpost.com/news/the-watch/wp/2016/03/15/police-cameras-are-a-tool-its-how-we-use-this-tool-that-matters/?utm_term=.32b69e71b484 [<https://perma.cc/9T32-AGUF>]; The Fifth Estate, *Deception and Police-Worn Body Cameras*, YOUTUBE, at 0:33 (Nov. 4, 2016), https://www.youtube.com/watch?v=PQMLN_nkGC4 [<https://perma.cc/BP35-W77Y>]; Yaniv Kubovich, *Police Body Cams Pit Violence Against Privacy*, HAARETZ (May 15, 2016), <https://www.haaretz.com/israel-news/.premium-police-body-cams-pit-violence-against-privacy-1.5383104> [<https://perma.cc/4YES-7JAR>]; *Test: Wat Zie Jij in Deze Bodycam-Beelden?*, NOS (June 7, 2016), <https://nos.nl/op3/artikel/2109597-test-wat-zie-jij-in-deze-bodycam-beelden.html> [<https://perma.cc/JRL7-XD4M>]; *TODAY Show: Police Body Cameras: Can You Always Believe What They Show?* (NBC television broadcast May 16, 2016), <https://www.today.com/video/police-body-cameras-can-you-always-believe-what-they-show-686449731595> [<https://perma.cc/UX4Y-3EXW>]; Timothy Williams et al., *Police Body Cameras: What Do You See?*, N.Y. TIMES

have repeatedly been asked some variant of what appears to be a simple question: is the adoption of body cameras a good idea? My response is no doubt familiar to law students across the country: it depends. Body-worn cameras are a tool. Tools should be used to accomplish normatively desirable tasks when they are an efficient way of accomplishing or facilitating that task. Following that logic, tools should not be used when the task itself is inappropriate or when the tool is ill-suited for the job at hand. To make this point more directly, consider that most indelicate of tools: the hammer. For some tasks, such as putting in nails, the hammer is among the best possible tools to use. For other tasks, such as extracting nails, the hammer is a perfectly reasonable option even though other tools, such as a nail puller or cat's paw crowbar, may prove marginally more efficacious. For some tasks, such as cleaning a windshield, using a hammer will not only be ineffective, it may prove destructively counterproductive. And some tasks, like bashing in another person's head, are themselves so objectionable that a hammer should not be used even if its use would easily accomplish the task.

The analogy between body cams and hammers is, of course, inexact. While the relative capabilities and limitations of a hammer are both well-known and easily capable of being identified through even a superficial examination, the potential value and constraints of a body-worn camera system are more speculative and not immediately obvious. Regrettably, the lack of clear information can lead public officials and police executives to give substantially more consideration to the technical questions of *how* BWCs should be acquired and deployed than the more complicated questions of what agencies are trying to achieve with their use and whether BWCs are an appropriate and efficient tool.¹⁶ That is, the real difficulty with body cams is both pinpointing *ex ante* what the jurisdiction or agency is trying to accomplish with a BWC system and recognizing the various factors that are likely to affect a body cams' value in that context.

This Article seeks to elevate public discourse about body-worn cameras. It provides a simplified framework that police executives, elected officials, and community members can apply to make more

(Apr. 1, 2016), <https://www.nytimes.com/interactive/2016/04/01/us/police-bodycam-video.html> [<https://perma.cc/4DNC-456Z> (dark archive)].

16. This observation is not limited to BWC programs or to police agencies. Mats Alvesson and André Spicer have observed that this phenomenon, which they identify as an aspect of "functional stupidity," is endemic in private organizations. MATS ALVESSON & ANDRÉ SPICER, *THE STUPIDITY PARADOX* 8–13 (2016).

informed decisions about whether and how to implement body-worn cameras.¹⁷

Part I reviews the justifications for, implementation of, and lessons learned from in-car camera systems (or “dash cams”). Although broadly accepted and widely used today, in-car camera systems were adopted by police agencies much more hesitantly and over a much longer period of time than BWC systems appear to be. Historically, dash cams were justified by their ability to record video that was believed to provide three discrete benefits: it was persuasive evidence in DUI cases, it could establish the validity of a defendant’s consent to search a vehicle that contained drugs, and it was originally thought to help gather information about, if not reduce or eliminate, racial profiling. As officers and administrators became accustomed to the new technology, the list of potential benefits continued to grow. This Part discusses the results and shortcomings of one of the few studies that attempted a comprehensive review of in-car camera systems.

Part II tackles the multitude of different benefits that politicians, police executives, officers, and activists believe or have hoped that body-worn cameras will provide by offering a three-part taxonomy. All of the purported benefits fall, this Article asserts, into one of three categories: symbolic benefits, behavioral benefits, and informational benefits. The symbolic benefits of body cams relate to the potential effect on police-community relations and particularly the extent to which the adoption and implementation of a body-worn camera program can communicate to the public that the agency is aware of, respectful of, and responsive to concerns about accountability and transparency. The behavioral benefits relate to the purported ability of body-worn cameras to encourage lawful and appropriate behavior, increase civility, and decrease physical resistance by civilians and the use of force by officers. The informational benefits relate to the potential for BWC videos to provide more and better information about police encounters than we would otherwise have, along with the various uses to which that information could be put.

The potential benefits outlined in Part II are just that: *potential* benefits. Whether an agency that adopts body-worn cameras will

17. See *Floyd v. City of New York*, 959 F. Supp. 2d 668, 685 (S.D.N.Y. 2013) (analyzing the unique benefits of body-worn cameras both generally and as applied to the case at hand, and “ordering the NYPD to institute a pilot program in which body-worn cameras will be worn for a one year period by officers on patrol in one precinct per borough”).

enjoy those benefits depends heavily on the practical limitations of the technology and our ability to use it effectively and the policy choices that police agencies make when they implement a BWC program. Part III addresses the former, while Part IV reviews some of the more difficult aspects of the latter. This Article concludes that policymakers can make informed decisions about whether to adopt body cams, which camera system to use, and how to deploy BWCs only after reviewing the practical limitations and policy implications that affect each potential benefit and considering how to best manage any incidental effects.

I. A BRIEF HISTORY OF POLICE VIDEO

It is no exaggeration to say that today's police officers and the first "modern" police officers would scarcely recognize each other.¹⁸ Most large cities in the United States had police departments by the 1850s, but the officers did not wear uniforms and were typically prohibited from carrying firearms.¹⁹ As policing has evolved, it has adopted a range of once-new-and-now-familiar equipment and technology, some of which has dramatically changed the practice, and sometimes the very nature, of policing. Each change evoked acclaim and criticism from the public, police administrators, and officers themselves.²⁰

Police communications have shifted from in-person interactions to police callboxes to in-car wireless radios to today's portable digital radios and cellular communications technology.²¹ Dispatch and police records have changed from index cards and paper files to computer-aided dispatch systems and electronic filing and records-management systems. Patrol routines, once limited to highly diffused officers working a foot-patrol beat, have so thoroughly shifted with the advent of police vehicles that "[t]he patrol car became the symbol of policing . . . represent[ing] mobility, power, conspicuous presence,

18. Exactly when cities in the United States adopted the modern approach to policing is difficult to identify with any precision, but by all accounts the institution is less than 200 years old. Seth W. Stoughton, *The Blurred Blue Line: Reform in an Era of Public and Private Policing*, 44 AM. J. CRIM. L. 117, 125–27 (2017).

19. WILLIAM J. BOPP & DONALD O. SCHULTZ, *A SHORT HISTORY OF AMERICAN LAW ENFORCEMENT* 27–28, 38 (1972).

20. *Id.* at 46–47; DAVID R. JOHNSON, *AMERICAN LAW ENFORCEMENT: A HISTORY* 25–26 (1981).

21. See, e.g., *The Network*, FIRSTNET, <https://www.firstnet.gov/network> [<https://perma.cc/J6PD-HV5G>].

control of officers, and professional distance from citizens.”²² Police weaponry has changed, too. In the context of lethal weaponry, the revolvers of yesteryear have given way to the semi-automatic handguns that are issued today, with shotguns and rifles often added to the mix. The expansive menu of less-lethal weaponry starts with the original police weapon, the baton, and includes the chemical sprays and electric cattle prods that were used against demonstrators and protestors in the 1960s,²³ TASERS and other “stun guns” and the large caliber “baton round” launchers that date from the 1970s,²⁴ Pepperballs (a paintball filled with a liquid or powder irritating agent) in the late 1990s,²⁵ and the acoustic or microwave weaponry of the early- and mid-2000s.²⁶

Investigative equipment and technology, too, has changed substantially. Police agencies around the country now employ automated license plate readers, gunfire detection systems,²⁷ radar and LIDAR speed detection devices, laser scanners for forensic measurements, drones and other remote-piloted robotic tools, and so on.

Comparatively speaking, the history of police-video recording is of much more recent vintage than other technological innovations. Although there were failed attempts to install cameras in police vehicles as early as the 1930s²⁸—“[t]he camera was on a small tripod

22. George L. Kelling & Mark H. Moore, *The Evolving Strategy of Policing*, 4 PERSP. ON POLICING 8 (1988).

23. DARIES REJALI, TORTURE & DEMOCRACY 226–29 (2009); JEROME H. SKOLNICK & JAMES J. FYFE, ABOVE THE LAW: POLICE & THE EXCESSIVE USE OF FORCE 75 (Free Press et al. eds., 1993); Daniel A. Gross, *The Forgotten History of Mace, Designed by a 29-Year-Old and Reinvented as a Police Weapon*, SMITHSONIAN.COM (Nov. 4, 2014), <http://www.smithsonianmag.com/history/forgotten-history-mace-designed-29-year-old-and-reinvented-police-weapon-180953239/#8meYgGEJ6oIMYyTE.99> [https://perma.cc/JFS6-8AWQ].

24. REJALI, *supra* note 23, at 229.

25. *Advanced Interactive Systems, Inc. and PepperBall Technologies, Inc. Join Forces*, POLICEONE.COM (Apr. 7, 2004), <https://www.policeone.com/police-products/less-lethal/press-releases/84200-Advanced-Interactive-Systems-Inc-and-PepperBall-Technologies-Inc-Join-Forces/> [https://perma.cc/8UXB-9WXH].

26. Colin Moynihan, *Noise as a Weapon? Police Use of Sound Cannons Questioned*, N.Y. TIMES (June 1, 2017), <https://www.nytimes.com/2017/06/01/nyregion/sound-cannon-protest-lawsuit-long-range-acoustic-device.html> [https://perma.cc/DV2R-A7EN (dark archive)]; Rania Khalek, *6 Creepy New Weapons the Police and Military Use to Subdue Unarmed People*, ALTERNET (Aug. 1, 2011), http://www.alternet.org/story/151864/6_creepy_new_weapons_the_police_and_military_use_to_subdue_unarmed_people [https://perma.cc/GSF8-5N2N].

27. SHOTSPOTTER, <http://www.shotspotter.com/> [https://perma.cc/553X-RK55].

28. INT’L ASS’N OF CHIEFS OF POLICE, THE IMPACT OF VIDEO EVIDENCE ON MODERN POLICING: RESEARCH & BEST PRACTICES FROM THE IACP STUDY ON IN-CAR

that required the full passenger side of the front seat with the back seat fully loaded with a recorder and cables”²⁹—it is more accurate to say that police-video recording is celebrating its thirtieth birthday.

When they were first commercially introduced in the late 1980s, dash cams were not particularly popular. The notion of private ownership of video-playing hardware was still new and largely alien. By 1985, only seventeen percent of households had a Video Cassette Recording (“VCR”) system,³⁰ which some number of readers will recall played Video Home System (“VHS”) tapes. Private ownership of those VHS cassettes—the recording medium of the day—was rare; rentals were the norm. In 1987, Paramount Pictures shocked the video industry by announcing that cassettes of *Top Gun* would be sold for a mere \$26.95, “the lowest introductory price ever asked for a major movie on cassette.”³¹

In the policing context, the cameras that could be mounted in vehicles were large, difficult to install, and expensive.³² Each unit had three components—the camera itself, a monochromatic playback unit that could be mounted overhead or between the front seats, and a VCR secured in a locking stainless steel box that was typically mounted in the passenger foot-well, the back seat, or the trunk; all of the components had to be wired together.³³ The high price and difficulty of installation and maintenance limited the initial adoption

CAMERAS 5 (2004). The IACP report cites an article in *Popular Science* magazine but incorrectly reports that the article was about a Connecticut article in the 1960s. In fact, the article was published in September 1939 and is about Officer R.H. Galbraith of the California Highway Patrol. *Movie Camera in Police Car Puts Evidence on Film*, MODERN MECHANIX (Mar. 14, 2012), <https://web.archive.org/web/20120314041757/http://blog.modernmechanix.com/2012/03/09/movie-camera-in-police-car-puts-evidence-on-film/> [<https://perma.cc/XGU5-H2A6>].

29. INT’L ASS’N OF CHIEFS OF POLICE, *supra* note 28, at 5.

30. Trish Hall, *Electronics: It’s Not Home Without It*, N.Y. TIMES, Mar. 29, 1990, at C6.

31. See Aljean Harmetz, *Marketing ‘Top Gun’ Cassette*, N.Y. TIMES (Jan. 15, 1987), <http://www.nytimes.com/1987/01/15/arts/marketing-top-gun-cassette.html> [<https://perma.cc/9VGA-WLYN> (dark archive)].

32. One news report from 1993 put the price of an in-car camera system at \$1,750. *Law Enforcement Agencies Get Cameras*, GOUPSTATE.COM, <http://www.goupstate.com/article/NC/19931005/News/605197740/SJ/> [<https://perma.cc/6LXW-SD6T> (dark archive)]. Adjusted for inflation, the cost of the camera system in 2017 dollars is \$3,000. CPI INFLATION CALCULATOR, <https://data.bls.gov/cgi-bin/cpicalc.pl?cost1=1750&year1=199301&year2=201704> [<https://perma.cc/TX9Y-L7KJ>].

33. The components of the L3’s Mobile Vision In-Car Video System, for example, can still be found and purchased online. *M3 Mobile Vision MV-7 In Car Video System, VoiceLink Microphone + Extras*, EBAY, <https://www.ebay.com/itm/M3-Mobile-Vision-MV-7-In-Car-Video-System-VoiceLink-Plus-Microphone-Extras-/132424099234> [<https://perma.cc/VG88-W34L>].

by police agencies. It may also have been true that police executives did not feel a compelling need to adopt in-car camera systems; after all, officers had never had them before and their absence had not hindered police operations.

Over the next fifteen years, agencies began to adopt dash cams more readily for four separate reasons, presented here chronologically. First, Mothers Against Drunk Driving, which had been founded in 1980, began providing grants or directly purchasing in-car camera systems for police agencies in the late 1980s and early 1990s.³⁴ For drunk-driving cases, video footage from in-car camera systems was viewed as “a ‘defense killer’” that could dramatically increase the potential for a prosecution to end in a plea deal.³⁵ As public perceptions shifted, video footage was believed to be necessary for fact-finders to fairly assess the situation, including the defendant’s performance on field sobriety exercises. Since 1998, for example, South Carolina has required video recordings in DUI prosecutions; subject to a few exceptions, the arresting officer must provide a video recording of the investigation both at the site of the stop and at the location of the breath testing or submit an affidavit explaining why video was not available.³⁶

Second, dash cams were a response to the public outcry that followed from the Rodney King beating, fortuitously filmed by a bystander with a personal camcorder in March 1991. Then, as now, public demand for police accountability and the police interest in protecting officers from frivolous allegations of misconduct both contributed to the adoption of in-car camera systems.³⁷

Third, by the mid-1990s, the Drug Enforcement Administration (“DEA”) had become concerned about the number of drug possession cases that were not resulting in convictions. At issue in those cases was the validity of a motorist’s consent to a police search of his vehicle.³⁸ The DEA began to offer funding for local police agencies to acquire in-car camera systems because the video would, they believed, help prosecutors prove to skeptical judges and juries that someone who was “transporting large quantities of narcotics and

34. INT’L ASS’N OF CHIEFS OF POLICE, *supra* note 28, at 5.

35. *Law Enforcement Agencies Get Cameras*, *supra* note 32.

36. Act of June 29, 1998, No. 434, 1998 S.C. Acts 3205 (codified as amended at S.C. CODE ANN. § 56-5-2953 (2017)).

37. See Bob Sullivan, *Squad Car Video Cameras Go Digital*, NBC NEWS.COM (May 14, 2017), http://www.nbcnews.com/id/3078632/ns/technology_and_science-tech_and_gadgets/t/squad-car-video-cameras-go-digital/ [https://perma.cc/V7FQ-GQG6].

38. INT’L ASS’N OF CHIEFS OF POLICE, *supra* note 28, at 5.

hundreds-of-thousands of dollars of unexplainable cash would actually give the police permission to search his/her vehicle.”³⁹ And they continued to offer funding, in modest amounts, because video was powerful evidence. “Time and time again the camera documented the consented search, which was later used to gain a conviction.”⁴⁰

Fourth, by the end of the 1990s and through the early 2000s, public attention to and criticism of racial profiling led the Community Oriented Policing Services (“COPS”) Office at the Department of Justice to offer substantial grant funding for agencies to purchase in-car camera systems.⁴¹ In-car cameras were seen as a way to gather critical data without requiring officers to fill out cumbersome questionnaires after every traffic stop; legislation in Texas, Missouri, and Minnesota, for example, required officers to record race-related information after traffic stops but allowed agencies to install in-car cameras “in lieu of or in addition to collecting data.”⁴²

39. *Id.*

40. *Id.*

41. INT’L ASS’N OF CHIEFS OF POLICE, *supra* note 28, at 1; U.S. DEP’T OF JUSTICE, COPS OFFICE, *U.S. Department of Justice Awards \$3.1 Million in Grants to Purchase In-Car Cameras* (Sept. 18, 2003), <https://web.archive.org/web/20031124102306/http://www.cops.usdoj.gov:80/Default.asp?Item=950> [https://perma.cc/7X4Y-437E]; U.S. DEP’T OF JUSTICE, COPS OFFICE, *U.S. Department of Justice Announces \$3 Million in Grants to Purchase In-Car Cameras* (Nov. 13, 2002), <https://web.archive.org/web/20030316233659/http://www.cops.usdoj.gov:80/default.asp?Item=742> [https://perma.cc/T6VG-6BBL]; U.S. DEP’T OF JUSTICE, COPS OFFICE, *U.S. Department of Justice Announces \$3.2 Million in Grants to Purchase In-Car Cameras* (Sept. 21, 2001), https://web.archive.org/web/20011119131008/http://www.usdoj.gov:80/cops/news_info/press_releases/pr_9_21_01c.htm [https://perma.cc/GBG6-HFA3]. It was also perceived at the time that there was an increase in the number of assaults on officers and that in-car camera systems would increase officer safety. *Id.* The Law Enforcement Officers Killed & Assaulted Data collected and maintained by the Federal Bureau of Investigation does not support the observation that there was a long-term increase in assaults on officers. There was a dramatic drop in assaults on officers in 1996 (46,608 assaults on officers compared to a ten-year average of 63,475 assaults on officers) with an increase in 1997 (52,149 assaults on officers compared to a ten-year average of 62,576 assaults) and 1998 (60,673 assaults on officers compared to 62,768 assaults). Over the next few years, the number of assaults on officers fluctuated between almost 56,000 in 1999 and over 59,000 in 2002, yet the average continued to drop from 62,148 in 1999 to 58,049 in 2002. *Law Enforcement Officers Killed and Assaulted: Number of Assaults and Percent Injured by Type of Weapon, 1996–2005*, UNIFORM CRIME REPORTING PROGRAM (2005), <https://www2.fbi.gov/ucr/killed/2005/table68.htm> [https://perma.cc/B25R-8P2M].

42. *See, e.g.*, AMY FARRELL ET AL., *NEW CHALLENGES IN CONFRONTING RACIAL PROFILING IN THE 21ST CENTURY: LEARNING FROM RESEARCH & PRACTICE* 121 (2003); Florangela Davila, *Mayor’s Plan Will Gather Race Data*, SEATTLE TIMES (July 19, 2002), <http://community.seattletimes.nwsourc.com/archive/?date=20020719&slug=race19m> [https://perma.cc/Z8YK-6QQA].

Given these pressures and incentives, it should not be surprising that in-car camera systems spread across the policing industry. In 2000, only 37% of police agencies used in-car video cameras.⁴³ By 2007, that number had climbed to more than 60% of agencies,⁴⁴ and by 2013, the most recent year for which data are available, it had reached 70% of agencies; today, it is almost certainly an even higher percentage.⁴⁵ The total number of vehicles equipped with camera systems had also jumped dramatically. In 2000, in-car camera systems had been installed in only 3,400 of state police and highway patrol vehicles; by 2003, that number had grown to more than 17,500, “representing 72% of total state patrol vehicles.”⁴⁶

In 2001, the International Association of Chiefs of Police conducted a study of in-car camera systems at the behest of the COPS Office. Researchers employed a series of surveys, focus group discussions, and interviews at dozens of state police agencies and highway patrols that had received funding through the COPS In-Car Camera Initiative. The first phase of the study involved forty-seven police agencies and focused on “selection, acquisition, installation and maintenance of in-car cameras systems, the development of relevant policies and procedures, and in-car camera operation and training. Agencies were also asked to highlight the obstacles encountered as well as the benefits derived from the use of in-car cameras.”⁴⁷ The second phase of the study was limited to twenty-one agencies and focused on “both the problems and successes that have arisen since the implementation of their [in-car camera] program” as identified in the “perceptions of prosecutors, police line officers, police mid-level

43. Matthew J. Hickman & Brian A. Reaves, U.S. Dep’t of Justice, Bureau of Justice Stat., NCJ 196002, Local Police Departments 2000, at iv (2003), <https://www.bjs.gov/content/pub/pdf/lpd00.pdf> [<https://perma.cc/7TBV-CHJS>]. Earlier data are unavailable; prior to 2000, the Law Enforcement Management and Administrative Statistics survey did not include questions about camera use. See Brian A. Reaves, U.S. Dep’t of Justice, Bureau of Justice Stat., NCJ-148822, Local Police Departments 1993 (1996), <https://www.bjs.gov/content/pub/pdf/Lpd93.pdf> [<https://perma.cc/W6TS-J48K>]; Brian A. Reaves & Andrew L. Goldberg, U.S. Dep’t of Justice, Bureau of Justice Stat., NCJ 173429, Local Police Departments 1997 (2000), <https://www.bjs.gov/content/pub/pdf/lpd97.pdf> [<https://perma.cc/GP64-LUX4>].

44. BRIAN A. REAVES, U.S. DEP’T OF JUSTICE, BUREAU OF JUSTICE STAT., NCJ 231174, LOCAL POLICE DEPARTMENTS 2007, at 7 (2010), <https://bjs.gov/content/pub/pdf/lpd07.pdf> [<https://perma.cc/2X24-DJ4H>].

45. BRIAN A. REAVES, U.S. DEP’T OF JUSTICE, BUREAU OF JUSTICE STAT., NCJ 248767, LOCAL POLICE DEPARTMENTS, 2013: EQUIPMENT AND TECHNOLOGY 4 (2015), <https://www.bjs.gov/content/pub/pdf/lpd13et.pdf> [<https://perma.cc/BQZ9-93KW>].

46. INT’L ASS’N OF CHIEFS OF POLICE, *supra* note 28, at 6.

47. *Id.* at 7.

managers and executive staff, as well as private citizens.”⁴⁸ That study identified a series of benefits, including:

- Enhancing officer safety[;]
- Improving agency accountability[;]
- Reducing agency liability[;]
- Simplifying incident review[;]
- Enhancing new recruit and in-service training (post-incident use of videos)[;]
- Improving Community/Media perceptions[;]
- Strengthening police leadership[;]
- Advancing prosecution/case resolution[;]
- Enhancing officer performance and professionalism[;]
- Increasing homeland security[; and]
- Upgrading technology policies and procedures.⁴⁹

Importantly, the study reflects individuals’ *perceptions* and does not attempt to track more objective measures. In the context of officer safety, for example, the study concluded that “33% of the officers reported in the survey that the use of the cameras caused them to feel safer on the job, while 64% reported that the use of the camera has had no impact on their level of personal safety.”⁵⁰ But the study did not attempt to identify whether officers were, in fact, any safer after the introduction of cameras than they had been before. In the same vein, civilians who were surveyed were asked about whether being recorded would affect their behavior or their willingness to file a complaint, but there was no attempt to determine empirically whether these perceptions were accurate reflections of actual practice.⁵¹ The ultimate findings of the study reflected an enthusiastic, if empirically dubious, endorsement of the value of in-car camera systems,⁵² along with exhortations that proper policies and management are essential elements of success and this cautionary note: “[O]nce the agency commits to the use of the in-car cameras, the use of the systems will become the norm and not the exception.

48. *Id.*

49. *Id.* at 2.

50. *Id.* at 13.

51. *Id.* at 21.

52. Representative conclusions include statements such as, “The in-car camera is an unbiased witness to events to ensure the accountability and the integrity of their officers.” *Id.* at 25.

Community leaders, the courts, and investigators will expect video evidence in all cases.”⁵³

If the history of in-car cameras tells us anything, it is that video recording technology will fully solve the problems it was intended to solve only rarely, if at all. Prosecutions for DUI, suppression motions that attack the validity of consent, and racial profiling remain active and, in some cases, are quite difficult problems to manage. Video footage has certainly proven valuable on some occasions, but acknowledging that cameras have been and can be *part* of a solution is not to suggest that they are *the* solution.

II. THE POTENTIAL BENEFITS OF BODY-WORN CAMERAS

Today, the public conversation about body-worn camera systems largely mirrors the historical expectations of the various benefits that police agencies and the public could realize by adopting in-car camera systems. Commentators have provided a veritable laundry list of advantages, but there has been little in the way of consistency in how those advantages are defined. This Part offers a taxonomy inspired by the tripartite justifications that Judge Scheindlin provided for ordering the New York Police Department to begin a trial of BWCs as one of the remedies in the *Floyd v. City of New York*⁵⁴ litigation:

Video recordings will serve a variety of useful functions. First, they will provide a contemporaneous, objective record of stops and frisks, allowing for the review of officer conduct by supervisors and the courts. . . . Second, the knowledge that an exchange is being recorded will encourage lawful and respectful interactions on the part of both parties. Third, the recordings will diminish the sense on the part of those who file complaints that it is their word against the police, and that the authorities are more likely to believe the police. Thus, the recordings should also alleviate some of the mistrust that has developed between the police and the black and Hispanic communities, based on the belief that stops and frisks are overwhelmingly and unjustifiably directed at members of these communities.⁵⁵

Those justifications gave rise to three categories that encompass all the potential benefits of body-worn camera systems: symbolic benefits, behavioral benefits, and informational benefits.

53. *Id.* at 26.

54. 959 F. Supp. 2d 668, 685 (S.D.N.Y. 2013).

55. *Id.* at 685.

A. *Symbolic Benefits*

In May 2015, the Presidential Task Force on 21st Century Policing released its final report.⁵⁶ It opens with the following statement: “Trust between law enforcement agencies and the people they protect and serve is essential in a democracy. It is key to the stability of our communities, the integrity of our criminal justice system, and the safe and effective delivery of policing services.”⁵⁷ Citing work by Yale Law School professor Tom Tyler and by sociologist M. Somjen Frazer, the report explicitly ties public trust to the perception that the police are legitimate authorities.⁵⁸ Ultimately, the Task Force would make a series of recommendations that it organized into six different “pillars,” the first of which was “building trust and legitimacy.”⁵⁹

Legitimacy has become a buzzword in policing circles, and for good reason. Research suggests that community members who view police as legitimate are more likely to obey the law, cooperate with officers, and take a favorable view of public policies that increase police authority.⁶⁰ When members of the public perceive the police as less legitimate, in contrast, their distrust of police can make them less likely to call for police assistance or cooperate with officers.⁶¹ Distrust can handicap officers’ efforts in the very environments that are most

56. PRESIDENT’S TASK FORCE ON 21ST CENTURY POLICING, FINAL REPORT OF PRESIDENTIAL TASK FORCE ON 21ST CENTURY POLICING (2015).

57. *Id.* at 1.

58. *Id.* at 5 n.2.

59. *Id.* at 9.

60. See Jason Sunshine & Tom R. Tyler, *The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing*, 37 LAW & SOC’Y REV. 513, 514 (2003) (studying how police legitimacy influences “behavioral compliance with the law, behavioral cooperation with the police, and public willingness to support policies that empower the police to use their discretion in enforcing the law”); Tom R. Tyler & Jeffrey Fagan, *Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities?*, 6 OHIO ST. J. CRIM. L. 231, 233–35 (2008) (contrasting two models of community cooperation with police, and concluding that increased perception of police decisions as legitimate more effectively motivates cooperation than does imposing sanctions and incentives); see also E. ALAN LIND & TOM R. TYLER, *THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE* 64 (1988) (describing the effect of community perceptions of police legitimacy); E. ALLAN LIND & TOM R. TYLER, *WHY PEOPLE OBEY THE LAW* 5 (2006) (discussing citizens’ concerns with legal authorities); Tom R. Tyler, *Enhancing Police Legitimacy*, 593 ANNALS AM. ACAD. POL. & SOC. SCI. 84, 86 (2004) (explaining the loose correlation between public perception of the police and effectiveness at fighting crime, suggesting that increased legitimacy provides a more sufficient basis “for securing compliance with the law”).

61. See Mike Hough et al., *Procedural Justice, Trust, and Institutional Legitimacy*, 4 POLICING 203, 207 (2010) (“[P]ublic cooperation with the police was . . . strongly predicted by legal cynicism, perceived, police legitimacy, and personal morality.”).

in need of policing services; “typical residents in low-income urban neighborhoods are extremely reluctant to cooperate with police in producing crime reduction strategies.”⁶²

When it comes to shaping public perceptions of police legitimacy, the substantive content of the law or the ultimate results of its application is not as important as the characteristics of the interactions between civilians and police officers. That is, individuals’ perceptions of police legitimacy depend heavily on how they are treated, or what has come to be called “procedural justice.”⁶³ Procedural justice may be explained as an approach to mediating or resolving a dispute that leads disputants to perceive that the mediation or resolution process was fair. People are more likely to view an encounter as procedurally just when officers solicit or are responsive to their input, when officers are viewed as neutral and equitable authorities, when officers treat them with dignity and respect, and when officers are perceived as sincerely concerned with safety and well-being.⁶⁴ Procedural justice, then, depends on civilians’ perceptions of officers’ actions. Civilian perceptions depend, in part,

62. ERIC J. FRITSCH ET AL., POLICE PATROL ALLOCATION AND DEPLOYMENT 103 (2009); cf. Patrick J. Carr et al., *We Never Call the Cops and Here is Why: A Qualitative Examination of Legal Cynicism in Three Philadelphia Neighborhoods*, 45 CRIMINOLOGY 445, 446 (2007) (“[O]ther research has demonstrated that legal cynicism is very high among residents of disadvantaged neighborhoods”); Tyler & Fagan, *supra* note 60, at 234 (explaining that “helping [police] has short term costs” which “could potentially be minor inconveniences but could also involve serious danger of retaliation”); Ronald Weitzer, *White, Black, or Blue Cops? Race and Citizen Assessments of Police Officers*, 28 J. CRIM. JUST. 313, 321–22 (2000) (containing a study that “shows a statistically significant neighborhood-class effect on perceptions of how Black and White police act in the neighborhood”).

63. See TOM TYLER & YUEN HUO, TRUST IN THE LAW 14 (2002). For discussion of views of procedural justice, see generally Lorraine Mazerolle et al., *Procedural Justice, Routine Encounters and Citizen Perceptions of Police: Main Findings from the Queensland Community Engagement Trial*, 8 J. EXPERIMENTAL CRIMINOLOGY 343 (2012); Kristina Murphy et al., *Nurturing Regulatory Compliance: Is Procedural Justice Effective When People Question the Legitimacy of the Law?*, 3 REG. & GOVERNANCE 1 (2009); Michael D. Reisig et al., *Procedural Justice, Police Legitimacy, and Public Cooperation with the Police Among Young Slovene Adults*, 14 VARSTVOSLOVJE 147 (2012); Michael D. Reisig & Camille Lloyd, *Procedural Justice, Police Legitimacy, and Helping the Police Fight Crime: Results from a Survey of Jamaican Adolescents*, 12 POLICE Q. 42 (2009); Sunshine & Tyler, *supra* note 60, at 535–36; Tom R. Tyler, *Procedural Justice, Legitimacy, and the Effective Rule of Law*, CRIM. & JUST. 283 (2003); Tyler & Fagan, *supra* note 60, at 231; Tom R. Tyler & Jonathan Jackson, *Popular Legitimacy and the Exercise of Legal Authority: Motivating Compliance, Cooperation, and Engagement*, 20 PSYCH. PUB. POL. & L. 78, 81 (2014); Scott E. Wolfe et al., *Is the Effect of Procedural Justice on Police Legitimacy Invariant? Testing the Generality of Procedural Justice and Competing Antecedents of Legitimacy*, 32 J. QUANT. CRIM. 253 (2016); and Scott E. Wolfe, *The Effect of Low Self-Control on Perceived Police Legitimacy*, 39 J. CRIM. JUST. 67 (2011).

64. Tyler, *supra* note 60, at 94–95.

on the civilian's prior beliefs about police; an individual who tends to strongly distrust the police is less likely to view an officer as a neutral and equitable authority or as sincerely concerned with public safety.⁶⁵ Trust, however, is difficult to establish when the police-community relationship is strained by tension.

Enter police body cams. Police executives, politicians, and policing scholars have expressed their hope that body cams would increase public trust or explicitly asserted that the technology can or is doing so.⁶⁶ According to a survey commissioned by BWC manufacturer Reveal and conducted by research firm YouGov, sixty percent of Americans "believe that if all police officers wore body cameras, police/community tensions would be reduced," and twenty-eight percent believe tension would be "[r]educd a lot."⁶⁷ The implementation of a BWC system, it is hoped, can provide a valuable symbolic benefit, contributing to an improvement in police-community relations.

65. See Roseanna Sommers, *Developments in the Law, Considering Police Body Cameras*, 128 HARV. L. REV. 1794, 1799 (2015).

66. Alex Acquisto, *Privacy, Right to Know Influence South Portland Police Policy on Body Cams*, THE FORECASTER (Jan. 12, 2017), <http://www.theforecaster.net/privacy-right-to-know-influence-south-portland-police-policy-on-body-cams/> [https://perma.cc/7C95-Q7Q5] (quoting a South Portland Police Department Facebook post that said "cameras would assist in 'enhancing public trust'"); Carolyn Blackburne, *Hagerstown Police Chief Requesting 60 More Body Cameras*, LOCALDVM.COM, <http://www.localdvm.com/news/maryland/hagerstown-police-chief-requesting-60-more-body-cameras/482855163> [https://perma.cc/9R2M-FL5B] (quoting Hagerstown Police Chief Victor Brito saying, "The use of this technology goes a long way to build that public trust and contributing to build the good will we have in our community"); Rich Johnson, *Montgomery Co. Police Body Camera Program: So Far, So Good*, WTOP (Apr. 3, 2017, 6:25PM), <http://wtop.com/montgomery-county/2017/04/13311231/> [https://perma.cc/TL6Q-TYC3] (quoting Montgomery County Councilman Marc Elrich saying, "Having these cameras increases the public trust"); Maria Nagle & Derek Beigh, *Police: Body Cameras Will Improve Transparency, Public Trust*, PANTAGRAPH (Oct. 11, 2015), http://www.pantagraph.com/news/police-body-cameras-will-improve-transparency-public-trust/article_c7794844-107a-5365-8411-f7360e500126.html [https://perma.cc/86LF-9UJH] (quoting Bloomington Police Chief Brendan Heffner saying that having a body-worn camera system "increases public trust in what we're doing"); Sierra Pizarro, *New Body Cams for SPD May Help to "Encourage Public Trust"*, KTBS.COM (June 21, 2017), https://www.ktbs.com/community/new-body-cams-for-spd-may-help-to-encourage-public/article_4fbca5c6-56ca-11e7-8572-ff485e0f601f.html [https://perma.cc/7X2D-827C] (stating that the Shreveport Police Department believes "the cameras will . . . encourage public trust in law enforcement"); *Truth, Transparency, and Trust in Law Enforcement*, KAMALA HARRIS, SENATOR, <http://www.newkamalaharris.org.php56-9.dfw3-2.websitetestlink.com/truthtransparencytrust/> [https://perma.cc/HFY5-KUL6] (stating that Kamala Harris supports "the adoption of body-worn cameras around the country to improve transparency, accountability and training").

67. *Reveal Public Survey on Body Worn Cameras*, YUOGOV, PLC (Sept. 2015) (on file with the North Carolina Law Review).

There are at least three ways in which police body cameras could provide a symbolic benefit. First, the adoption of a BWC system can serve as a signal to community members that the agency is both receptive and responsive to public calls for transparency and accountability. Knowing that an agency had directed officers to record their interactions can, as Judge Scheindlin wrote, “diminish the sense on the part of those who file complaints that it is their word against the police, and that the authorities are more likely to believe the police.”⁶⁸ In this way, the body camera serves as evidence that the agency is open to soliciting, accepting, and responding to civilian feedback. Second, to the extent that body cameras are expected to improve officer behavior by increasing professionalism,⁶⁹ the decision to implement a body-worn camera program can signal that the agency is committed to promoting the type of policing that the public expects. Finally, to the extent that body cameras are expected to reduce police uses of force,⁷⁰ their adoption can signal to the public that the police agency is taking steps to safeguard community members’ safety and well-being at the hands of officers.

In short, the implementation of a BWC system can provide a valuable symbolic benefit that, it is hoped, will contribute to an improvement in police-community relations.⁷¹

B. Behavioral Benefits

Where the potential symbolic benefits of a body-worn camera program are both ethereal and attenuated, the potential behavioral benefits are more commonly seen as tangible and immediate. Activists who want to reduce the frequency of police uses of force, police executives who want to increase officer professionalism, and the officers who want civilians to resist less often have all championed body-worn cameras as a way to achieve the desired behavioral change. As University of Pittsburgh law professor David A. Harris explained in the first piece of legal scholarship to focus on body-worn cameras, the technology could “increas[e] police compliance with

68. *Floyd v. City of New York*, 959 F. Supp. 2d 668, 685 (S.D.N.Y. 2013).

69. *See infra* Section II.B.

70. *See infra* Section II.B.

71. It is worth noting that the extent to which BWCs create symbolic benefits in individual encounters with the police appears to depend on whether the civilian was aware that the officer with whom they were interacting is equipped with a camera. Michael D. White et al., *Assessing Citizen Perceptions of Body-Worn Cameras After Encounters with Police*, 40 POLICING: INT’L J. POLICE STRATEGIES & MGMT. 689, 696 (2016).

Fourth Amendment rules.”⁷² Further, “the knowledge that an exchange is being recorded will encourage lawful and respectful interactions on the part of both parties.”⁷³ Officers themselves have different expectations and perceptions of what body-worn cameras will do, or whether they will do anything at all,⁷⁴ but the belief that they will improve officer or civilian behavior is not uncommon: a survey of officers in Phoenix, Arizona; Spokane, Washington; and Tempe, Arizona, found a substantial number agreed or strongly agreed that BWCs will make citizens more respectful and cooperative and reduce resistance, as well as making officers act more professionally.⁷⁵ A survey of officers at the Orlando Police Department found that a substantial minority of officers, 19.8%, believed that body-worn cameras would improve their own behavior, and more than twice as many, 42.9%, believed that they would “increase the by-the-book behavior of *other* officers.”⁷⁶

The potential behavioral benefits of BWCs fall into three distinct categories: improving compliance with rules, decreasing incivility, and reducing violence. Officers and civilians alike may be affected by all three categories of behavioral change. With regard to improving compliance, officers may be more likely to obey the rules that govern their behavior, from the constitutional limitations on searches and seizures to agency policies and procedures. Civilians, meanwhile, may be more likely to obey state laws as well as officers’ directives. With regard to decreasing incivility, it is hoped that officers and civilians who are being recorded will be more polite to each other, improving the character of police encounters. Finally, with regard to reducing violence, the objective is to discourage resistance by civilians and gratuitously severe or frequent uses of force by officers, especially in the context of deadly force.

It is worth pointing out at the outset that although civilian discourtesy, officer rudeness, civilian resistance, and police uses of force are distinct, there are many cases in which they will be interrelated, if not interdependent. Use-of-force scenarios only rarely

72. David A. Harris, *Picture This: Body-Worn Video Devices (Head Cams) as Tools for Ensuring Fourth Amendment Compliance by Police*, 43 TEX. TECH. L. REV. 357, 359 (2010).

73. *Floyd*, 959 F. Supp. 2d at 685.

74. See generally Janne E. Gaub et al., *Officer Perceptions of Body-Worn Cameras Before and After Deployment: A Study of Three Departments*, 19 POLICE Q. 275 (2016) (discussing police perceptions of BWCs).

75. *Id.* at 284.

76. Wesley G. Jennings et al., *Cops and Cameras: Officer Perceptions of the Use of Body-Worn Cameras in Law Enforcement*, 42 J. CRIM. JUST. 549, 551 (2014).

arise spontaneously. Police violence can, but typically does not, just suddenly erupt. Instead, it is far more common for an officer's use of force to be the culmination of an encounter with multiple iterations, a series of back-and-forth exchanges between the officer and the civilian.⁷⁷ Incivility on either side—or both sides—can contribute to an officer's use of force. For example, an officer may use force to overcome civilian resistance that was provoked by the officer's rudeness. Or, to present the same idea chronologically, an officer's incivility can give rise to civilian resistance that an officer then overcomes with force.⁷⁸ In short, it is possible that an increase in civility and professionalism will lead to a corresponding reduction in resistance, which will lead to a reduction in police uses of force. It is also possible that even without any impact on civility, the presence of a body-worn camera can discourage resistance or, for that matter, that BWCs could affect officers' use-of-force decisions even if they had no effect on civilian resistance.

There is some reason to believe that body-worn cameras *do* influence civilian and officer behavior, although the results of empirical studies are not consistent. A well-publicized, randomized, controlled trial in Rialto, California, for example, found that the adoption of body-cameras in the twelve-month evaluation period was correlated with an approximately ninety percent reduction in the number of complaints filed against officers and a roughly fifty percent decrease in officer use-of-force incidents.⁷⁹ Several observers have also pointed to the much larger Oakland Police Department,⁸⁰ which saw a more than seventy percent decline in uses of force and a similarly large decline in civilian complaints over the seven-year period (2008 to 2015) during which it was working toward meeting the requirements of a federal consent decree⁸¹ by, *inter alia*, rolling out

77. See GEOFFREY P. ALPERT & ROGER G. DUNHAM, UNDERSTANDING POLICE USE OF FORCE: OFFICERS, SUSPECTS, & RECIPROCITY 41 (2004).

78. See Seth W. Stoughton, *Principled Policing: Warrior Cops & Guardian Officers*, 51 WAKE FOREST L. REV. 611, 652–58 (2016).

79. Barak Ariel, William A. Farrar & Alex Sutherland, *The Effect of Police Body-Worn Cameras on Use of Force and Citizens' Complaints Against the Police: A Randomized Controlled Trial*, 31 J. QUANTITATIVE CRIMINOLOGY 509, 510 (2014).

80. The Rialto Police Department employs approximately 100 sworn officers, while the Oakland Police Department employs over 700 sworn officers. See *id.* at 518; CITY OF OAKLAND CAL., AUGUST 2017 STAFFING REPORT, <http://www2.oaklandnet.com/oakca1/groups/police/documents/agenda/oak067044.pdf> [<https://perma.cc/C4F6-4YEW>].

81. See *generally* Settlement Agreement Re: Pattern and Practice Claims, *Allen v. City of Oakland*, C00-4599 TEH (JL) (N.D. Cal. Dec. 2008) (requiring the department to implement any procedures that would increase officer accountability).

body-worn cameras for all patrol officers.⁸² Two pilot programs in Scotland—one in Renfrewshire and the other in Aberdeen—suggested that civilians are less likely to assault officers who are wearing body-worn cameras.⁸³ In late-2017, the Las Vegas Metropolitan Police Department released the results of a randomized, controlled trial that found that cameras reduced officer misconduct and the use of force.⁸⁴

Not all of the studies support the conclusion that body cameras will have the desired effects, however. Most recently, a randomized, controlled trial at the Metropolitan Police Department in Washington, DC, showed no statistically significant effect on officer uses of force or civilian complaints.⁸⁵ That study was rolled out in multiple patrol districts over the course of eighteen months, although the findings are based only on the first seven months of BWC implementation.⁸⁶ A prior thirty-month study at the Phoenix Police Department, which included a review of the fifteen months prior to implementation and the fifteen months after implementation, found that body-worn cameras did not have any impact on civilian behavior or the use of force.⁸⁷ It did, however, find both a reduction in civilian

82. Mike Blasky, *Oakland Police Becoming Example for Departments Seeking to Reform*, MERCURY NEWS (May 9, 2015), <http://www.mercurynews.com/2015/05/09/oakland-police-becoming-example-for-departments-seeking-to-reform/> [https://perma.cc/Q5SW-BLMC]. Importantly, the data from the Oakland Police Department is *not* the result of a randomized, controlled trial. *Id.* It is highly likely that the other measures the agency was taking pursuant to the consent decree also contributed to the decline in uses of force.

83. ODS CONSULTING, BODY WORN VIDEO PROJECTS IN PAISLEY AND ABERDEEN SELF EVALUATION 14 (2011).

84. ANTHONY A. BRAGA ET AL., THE BENEFITS OF BODY-WORN CAMERAS: NEW FINDINGS FROM A RANDOMIZED, CONTROLLED TRIAL AT THE LAS VEGAS METROPOLITAN POLICE DEPARTMENT 8–9 (2017), https://www.cna.org/cna_files/pdf/IRM-2017-U-016112-Final.pdf [https://perma.cc/7R5S-D3XC].

85. *Randomized Controlled Trial of the Metropolitan Police Department Body-Worn Camera Program*, THE LAB @ DC, <http://bwc.thelab.dc.gov/> [https://perma.cc/ZUU4-2VD6].

86. *Id.* The study examined whether BWCs changed behavior by comparing the actions of officers who were wearing a BWC with those of officers who were not, but most of the police encounters reviewed involved officers who had BWCs *and* officers who did not. This is relevant because it may well be the case that the *presence* of a BWC on scene, not the *wearing* of a BWC by a particular officer, affected officer behavior; testing for this effect was not within the scope of the study.

87. CHARLES M. KATZ ET AL., EVALUATING THE IMPACT OF OFFICER BODY WORN CAMERAS IN THE PHOENIX POLICE DEPARTMENT 3 (2014) [hereinafter KATZ ET AL., EVALUATING THE IMPACT]; CHARLES M. KATZ ET AL., U.S. DEP'T OF JUSTICE., BUREAU OF JUSTICE ASSISTANCE, PHOENIX, ARIZONA, SMART POLICING INITIATIVE: EVALUATING THE IMPACT OF POLICE OFFICER BODY-WORN CAMERAS ii (2015) [hereinafter KATZ ET AL., SMART POLICING INITIATIVE].

complaints and an increase in discretionary arrests.⁸⁸ The Edmonton Police Service in Alberta, Canada conducted a three-year pilot program and concluded that BWCs had no statistically significant effect on officers' use of force or civilian complaints.⁸⁹ One multi-site study suggested that officers wearing body cameras were *more* likely to be assaulted by civilians than officers who were not so equipped,⁹⁰ while a follow-up study suggested that the timing of when officers begin recording or announce that they have begun recording may have more of an effect than the mere presence or absence of a body-camera.⁹¹

The conflicting findings make it imprudent to assume, at this point, that body-worn cameras consistently affect civilian or officer behavior, let alone that they do so in predictable ways. Perhaps more importantly, to the extent that BWCs *do* affect civilian or officer behavior, the various studies have not yet attempted to identify how. That is, there is no empirical evidence as to the mechanism or mechanisms through which body-worn cameras affect behavior. There are at least four possibilities, which may very well work in conjunction with each other: the observer effect, deterrence theory, conformity, and experiential updating.

The observer effect, sometimes known as the bystander effect or the Hawthorne effect, refers to the intuitive phenomenon that people behave differently when they know they are being observed.⁹² In the late 1920s and early 1930s, the Hawthorne Works factory in Illinois commissioned a series of studies to determine how various factors—including lighting levels, re-organized work stations, the availability of food, the frequency of breaks, an obstacle-free workplace, and so

88. KATZ ET AL., *EVALUATING THE IMPACT*, *supra* note 87, at 3; KATZ ET AL., *SMART POLICING INITIATIVE*, *supra* note 8787, at 7–8.

89. EDMONTON POLICE SERV., *BODY WORN VIDEO: CONSIDERING THE EVIDENCE* 8 (2015), <http://www.bwvsg.com/wp-content/uploads/2015/06/Edmonton-Police-BWV-Final-Report.pdf> [<https://perma.cc/A3Y3-AYPL>].

90. Barak Ariel et al., *Wearing Body Cameras Increases Assaults Against Officers and Does Not Reduce Police Use of Force: Results from a Global Multi-Site Experiment*, 13 *EUR. J. CRIMINOLOGY* 744, 750 (2016).

91. Barak Ariel et al., *Report: Increases in Police Use of Force in the Presence of Body-Worn Cameras Are Driven by Officer Discretion: A Protocol-Based Subgroup Analysis of Ten Randomized Experiments*, 12 *J. EXPERIMENTAL CRIMINOLOGY* 453, 461 (2016).

92. Ryan Olson et al., *What We Teach Students About the Hawthorne Studies: A Review of Content Within a Sample of Introductory I-O and OB Textbooks*, 41 *INDUS.-ORGANIZATIONAL PSYCHOLOGIST* 23, 31 (2004) (citing JAMES L. BOWDITCH & ANTHONY F. BUONO, *A PRIMER ON ORGANIZATIONAL BEHAVIOR* 361 (5th ed. 2001)).

on—affected employee productivity.⁹³ The studies found that changing almost any factor, including a reversion back to the original conditions, resulted in an increase to productivity, at least for a period of time.⁹⁴ Later psychological research posited that the short-term gains in productivity were not because of the changes to the working environment, but rather because the employees were aware that they were being closely monitored in the aftermath of those changes because they received feedback about their productivity or because of how employees interpreted the change in conditions.⁹⁵ In the context of policing, body-worn camera systems may change civilian and officer behaviors by serving as a reminder that the behaviors in question are—or may be—observed and evaluated.

But observation and evaluation need not be conducted by an external party for the observer effect to come into play. Objective Self-Awareness Theory posits that the likelihood that an individual can and will alter her behavior is affected by her self-awareness.⁹⁶ “Self-awareness . . . may be increased by any stimulus that draws a person’s attention to himself, e.g., . . . the presence of a mirror or a camera.”⁹⁷ In some sense, the subject is both actor and observer. In the 1970s, Charles Carver conducted a series of experiments designed to test whether self-awareness could reduce aggression: subjects were paired up, and one (the actual subject) was instructed to ask the other (who was secretly a research assistant) several questions.⁹⁸ For each wrong answer, the actual subject was to deliver an electrical shock to the other “subject.” The strength of the shock varied on a one to ten point scale, and it was up to the actual subject to determine the level of each shock. Carver found that the subjects who were in a room with a mirror used less intense shocks than did subjects in a room without a mirror. He concluded that the mirror increased self-awareness, which in turn reduced aggression.⁹⁹ However, a separate study suggested that it was not aggression itself that was affected, but rather the subjects’ motivation to conform their behavior to what they

93. *Id.* at 26; see also John G. Adair, *The Hawthorne Effect: A Reconsideration of the Methodological Artifact*, 69 J. APPLIED PSYCHOL. 334, 336 (1984).

94. Olson et al., *supra* note 92, at 26; Adair, *supra* note 93, at 336–37.

95. Adair, *supra* note 93, at 336–37, 342–43.

96. See Charles S. Carver, *Physical Aggression as a Function of Objective Self-Awareness and Attitudes Toward Punishment*, 10 J. EXPERIMENTAL SOC. PSYCHOL. 510, 510 (1975); Ronald V. Clarke, *Situational Crime Prevention*, 19 CRIME & JUST. 91, 91 (1995).

97. Carver, *supra* note 96, at 510 (citation omitted).

98. *Id.* at 512–13.

99. *Id.* at 516.

perceived as expected.¹⁰⁰ That study was similarly designed, but subjects were informed that aggression was “positively valued,” or normatively desirable.¹⁰¹ In that study, the subjects in a room with a mirror delivered significantly higher shocks than did the subjects in a room without a mirror.¹⁰² Both studies suggest that self-awareness can increase the likelihood that the subjects will act in the way they believe they are expected to act. When a civilian or officer perceives that aggression is viewed negatively, the presence of a body-worn camera may well reduce violence. But when they perceive that aggression is a virtue, instead of a vice,¹⁰³ the presence of a body-worn camera may *increase* violence.

The preceding discussions, of course, suggest that an individual must know that he are being observed or have some external reminder that prompts his self-awareness. Police officers who manually activate a body cam are likely in the best position to know when a video recording is being made. Some cameras activate automatically, but it is entirely plausible that officers and civilians alike will, on at least some occasions, fail to perceive or fail to understand any visible or audible signals that indicate that the camera has begun recording. A study of civilians in Spokane, Washington, for example, found that only twenty-eight of the people who interacted with an officer equipped with a body-worn camera were aware of the camera during the encounter.¹⁰⁴

Further, given the relatively short shelf-life of the observer effect—the improved productivity rates identified in the Hawthorne Studies were found to return to near pre-intervention levels within about eight weeks¹⁰⁵—it is not clear that the observer effect will create lasting changes to behavior even when all parties are aware that they are being recorded. Data from the Spokane, Washington study supports this hypothesis: a randomized, controlled trial found a thirty-

100. *Id.* at 510; Charles S. Carver, *Facilitation of Physical Aggression Through Objective Self-Awareness*, 10 J. EXPERIMENTAL SOC. PSYCHOL. 365, 365 (1974).

101. Carver, *supra* note 100, at 365; *see also id.* at 367.

102. *Id.* at 367–68.

103. *See, e.g.*, DAVE GROSSMAN & LOREN W. CHRISTENSEN, ON COMBAT: THE PSYCHOLOGY AND PHYSIOLOGY OF DEADLY CONFLICT IN WAR AND IN PEACE 181 (2008) (discussing what the authors call “the gift of aggression”); *see also* Stoughton, *supra* note 78, at 634–35, 652–58.

104. *See, e.g.*, Michael D. White, Natalie Todak & Janne E. Gaub, *Assessing Citizen Perceptions of Body-Worn Cameras After Encounters with Police*, 40 POLICING: AN INT’L J. POLICE STRATEGIES & MGMT. 689, 693–94 (2017).

105. Richard E. Clark & Brenda M. Sugrue, *Research on Instructional Media, 1978-1988*, in INSTRUCTIONAL TECHNOLOGY: PAST, PRESENT, AND FUTURE 327, 328–33 (Gary J. Anglin ed., 1991).

nine percent reduction in use of force incidents by officers equipped with a BWC (compared to *no* reduction in the control group), but the reductions disappeared after six months.¹⁰⁶

Like the observer effect, deterrence theory suggests that officers may adapt their behaviors because they know their actions are being scrutinized. But where the observer effect may be predicated on self-awareness, deterrence theory posits that behavioral change may be the result of a desire to avoid punishment.¹⁰⁷ In this way, the effect of body-worn cameras may be understood as an application of situational crime prevention theory, which posits that crime can be reduced by, *inter alia*, increasing the potential perpetrator's perception that she is likely to be identified and apprehended.¹⁰⁸ Whether the potential perpetrator is a civilian who would otherwise assault an officer or an officer who would otherwise treat a civilian disrespectfully or use force gratuitously, the potential for bad actions to be identified may discourage the actors from engaging in those bad actions in the first place. According to Barak Ariel:

Effective deterrence is often thought of as a threat mechanism, comprising five intertwined elements: A potential rule violator must: (1) realize that the probability of apprehension . . . has changed; (2) take these altered risks into account when deciding whether to break the rule; (3) believe that there is a non-negligible likelihood of being caught; (4) believe that any altered penalty with will applied to him/her if caught; and (5) be willing to alter choices in light of [the increased probability of being apprehended].¹⁰⁹

The presence of body-worn cameras may implicate deterrence theory because video-recording technology increases the likelihood that misconduct will be detected.¹¹⁰

The strength of the deterrence effect may very well be contextual; some behaviors may be more or less susceptible to deterrence based on the officer's ability to prevent the probability of

106. Michael D. White, Janne E. Gaub & Natalie Todak, *Exploring the Potential for Body-Worn Cameras to Reduce Violence in Police-Citizen Encounters*, 12 POLICING 66, 70 (2017).

107. Barak Ariel et al., *The Deterrence Spectrum: Explaining Why Police Body-Worn Cameras 'Work' or 'Backfire' in Aggressive Police-Public Encounters*, 11 POLICING 1, 8–9 (2017).

108. Ronald Clarke, *Situational Crime Prevention*, 19 CRIME & JUST. 91, 106 (1995) (describing “situational deterrence” as “increasing the risks of being caught”).

109. Ariel et al., *supra* note 107, at 9 (citations omitted).

110. *Id.* (“The likelihood of getting caught for abusing powers, for instance, is substantially elevated when the camera is recording the police–public interaction.”).

detection and apprehension from changing. If officers adapt to the presence of BWCs by, for example, deactivating a camera during a civilian encounter, failing to activate the camera before a civilian encounter, or failing to charge the camera batteries before shift, the probability of apprehension has not increased.¹¹¹ Indeed, relative to the baseline of officers who are equipped with BWCs, the probability of apprehension has *decreased*. This suggests the need for a second-order application of deterrence theory: cameras may deter misconduct, but only if officers are sufficiently deterred from misusing (or not using) the cameras themselves.

Body-worn cameras may also promote behavioral changes in a way that may be explained by the social psychological theory of conformity. Social conformity, it is posited, pressures individuals to adapt their behaviors to integrate into a group. In his now-famous conformity experiments, Solomon Asch put a study subject in a line with four other people who were described as other subjects, but who were actually part of the experiment.¹¹² The group of five people was shown two cards and asked to match the line on Card 1 with one of three lines of different lengths on Card 2. The experimenters pretending to be study subjects all provided the same obviously incorrect answer; the experiment was to see whether the actual study subject would answer in kind. Asch found that more than a quarter of the study subjects consistently agreed with the obviously incorrect answer provided by the experimenters, and more than half did so at least once.¹¹³ Later asked about their incorrect answers, the study subjects explained that, after hearing the experimenters' responses, they either thought their initial (and correct) answer was wrong or they knew the answer offered by the other "subjects" was wrong but

111. See, e.g., KATZ ET AL., *EVALUATING THE IMPACT*, *supra* note 87, at 21 (finding that most officers at the Phoenix Police Department did not activate their body-worn cameras in situations that they were required by policy to record).

112. Solomon E. Asch, *Effects of Group Pressure on the Modification and Distortion of Judgments*, in *GROUPS, LEADERSHIP, AND MEN* 177 (H. Guetzkow ed., 1951); Solomon E. Asch, *Effects of Group Pressure on the Modification and Distortion of Judgments*, in *READINGS IN SOCIAL PSYCHOLOGY 2* (Guy E. Swanson et al., ed., 1952) [hereinafter Asch, *Effects of Group Pressure*]; Solomon E. Asch, *Opinions and Social Pressure*, 193 *SCI. AM.* 31, 32 (1955); Solomon E. Asch, *Studies of Independence and Conformity: I. A Minority of One Against a Unanimous Majority*, 70 *PSYCHOL. MONOGRAPHS: GEN. & APPLIED* 1, 3–5 (1956) [hereinafter Asch, *Studies of Independence*].

113. Asch, *Effects of Group Pressure*, *supra* note 112, at 2. A later meta-analysis of 133 similar studies from 17 countries found that conformity existed in all studies, but the level of conformity depended on a range of factors including cultural norms relating to collectivism or individualism. Rod Bond & Peter B. Smith, *Culture and Conformity: A Meta-Analysis of Studies Using Asch's (1952b, 1956) Line Judgment Task*, 119 *PSYCHOL. BULL.* 111, 111 (1996).

they were afraid of being derided. Social psychologists identify these two answers as references to informational conformity and normative conformity.

Informational conformity refers to an individual's acceptance of evidence that has been provided or suggested by others.¹¹⁴ In the Asch experiments, the subjects' perception that the other study participants had seen the line on Card 1 a certain way led them to adopt that view as correct. In short, study subjects gave what they believed was the correct answer, and they thought it was the correct answer because the other "participants" had all provided it.

Normative conformity, sometimes called "social conformity," refers to an individual's desire to fit in and willingness to adopt the group perspective so as not to be judged as non-conforming by group members.¹¹⁵ In other words, study subjects knowingly gave incorrect answers to fit in with perceived group expectations.

Body-worn cameras have the potential to change officer behavior through a combination of informational and normative conformity. Officers already get a substantial amount of information about how to do their jobs through the formal example set by supervisors and training officers, the informal example set by their more senior peers, and, to a lesser extent, from external sources such as the courts and the federal government.¹¹⁶ To the extent that body cameras can change officer behavior at all, it is possible that there may be an initial change in the conclusions that officers draw about the world—for example, whether a particular action by a suspect justifies a use of force—and that initial change may, through the process of informational conformity, spread from officer to officer, especially from senior officers to junior officers.

Similarly, the implementation of a body-worn camera system may lead officers to perceive that their colleagues expect them to behave in a particular way—by, for example, reducing the frequency or severity of uses of force. Normative conformity suggests that officers may change their behaviors so as to be in accordance with what they perceive as their colleagues' expectations. This *may* explain the results of the randomized, controlled trial at the Rialto, California Police Department: different shifts were randomly assigned a camera, so the same officer could be equipped with a camera on one shift, but

114. KNUD S. LARSEN, REIDAR OMMUNDSEN & KEES VAN DER VEER, BEING HUMAN: RELATIONSHIPS AND YOU: A SOCIAL PSYCHOLOGICAL ANALYSIS 253 (2015).

115. *Id.*

116. See Stoughton, *supra* note 78, at 641–51.

then not given a camera on the next, and the study found a reduction in the use of force among *all* officers (although the reduction among officers when they were not wearing cameras was not as great as the reduction among officers when they were wearing cameras).¹¹⁷

That finding may not be attributable to normative conformity, of course; it may be the result of experiential updating, the utterly mundane ability to learn from one's experience and apply those lessons to similar behavior in the future. To use a simplified example, if a person has previously used only a hobby hammer—a smaller, lightweight version of the standard hammer—to drive nails and then one day uses a standard hammer and realizes how much easier it is, that person's experience allows him to update his approach to driving nails: from that point on, he will choose to use a standard hammer. In the context of policing, officers who have approached their job a particular way may act differently shortly after being equipped with a body camera (perhaps because of the observer effect or conformity). If the officers learn that the changes improve their working lives by, for example, making them more effective or safer, we might expect them to retain some or all of those changes even after the dissipation of the observer effect.

Body-worn cameras, it has been suggested, can improve policing by increasing civility and decreasing both resistance by civilians and the use of force by officers. Whether this prediction will bear fruit may depend heavily on local factors well beyond the implementation of a single piece of technology; the existing studies have shown mixed results. The potential for body cameras to influence behavioral change may depend on whether that change is driven by the observer effect, conformity, experiential updating, or some combination of the three.

C. *Informational Benefits*

The final category of potential benefits relates to the ability of a body-worn camera to provide more information than would otherwise be available. This is particularly important in the context of the often-brief encounters between police officers and civilians the “quasi-events” marked by “the fleetingness and fluidity of power.”¹¹⁸ As Mary Fan has written, “more law enforcement encounters—including some of the most opaque domains of criminal procedure—

117. Ariel et al., *supra* note 79, at 524–27.

118. Mat Coleman & Angela Stuesse, *The Disappearing State and the Quasi-Event of Immigration Control*, 48 *ANTIPODE* 524, 527 (2016).

will be illuminated.”¹¹⁹ Video footage, it is hoped, will not just provide critical insight; it will allow us to draw reliable conclusions about those previously shrouded interactions. As Howard Wasserman has said, describing popular sentiment, “Video tells us exactly what happened, entirely eliminates the he-said/he-said ambiguity that often characterizes police-citizen encounters, and deters misbehavior by police and citizens.”¹²⁰ In short, body-worn camera systems will not only provide comprehensive evidence, by providing *more* information than currently exists, they will also provide accurate and objective evidence.

In some ways this category is the most straight-forward. The symbolic and behavioral benefits are attenuated from the BWC hardware itself and require abstract sociological or psychological theories to fully appreciate, but it takes no erudition or great imagination to view BWCs as, well, cameras designed to record video. In other ways, however, this category is the most fraught with disagreement. That disagreement does not relate to the video-recording capacity of BWCs, but rather to the ultimate usage to which the resulting video can or should be put. Although the range of potential uses is likely as broad as human imagination, making any list inherently incomplete, this Article offers a brief discussion of the most common usages: officer accountability; individual investigations, prosecutions, and defenses; aggregation and dragnet surveillance; analytics and machine-learning; officer training, and news and entertainment media.

Officer Accountability. Community members and officers alike have an interest in officer accountability, although their perceptions of current failures can be quite different. From the community perspective, officers are too often improperly shielded from the consequences of their errors and missteps by special procedural protections in a system that has been coopted by powerful police unions.¹²¹ A video recording of an encounter can both provide critical evidence to supplement “official narratives, like sworn documents created by police officers”¹²² and can provoke sufficient public

119. Fan, *supra* note 11, at 929.

120. Wasserman, *supra* note 10, at 832–33 (presenting exaggerated claims about body cams as a foil).

121. Kevin M. Keenan & Samuel Walker, *An Impediment to Police Accountability? An Analysis of Statutory Law Enforcement Officers' Bill of Rights*, 14 B.U. PUB. INT. L.J. 185, 185–87 (2005); Kate Levine, *Police Suspects*, 116 COLUM. L. REV. 1197, 1200–02 (2016); Stephen Rushin, *Police Union Contracts*, 66 DUKE L.J. 1191, 1195–98 (2017).

122. Harris, *supra* note 72, at 359 (quoting Jim Dwyer, *When Official Truth Collides with Cheap Digital Technology*, N.Y. TIMES, July 30, 2008, at B1).

interest to create political pressures for police agencies or political subdivisions to take remedial or disciplinary actions. From the police perspective, officers are too often improperly castigated for actions that were entirely appropriate in the situation because of the media's obsession with negative portrayals of the police¹²³ and public ignorance about the harsh realities of policing.¹²⁴ Further, video from other sources, including bystanders, often fails to capture relevant information, such as events that occurred prior to the initiation of recording. Having more information about the nuances of an individual encounter can protect officers from frivolous complaints and give civilians some sense of situational empathy by illustrating the pressures that officers face when making decisions in the field. From both perspectives, additional video could potentially help recalibrate the current flawed approach to officer accountability by providing much-needed information.

Individual Investigations, Prosecutions, and Defenses. Video footage could also be used to support a police investigation or the ultimate prosecution of an individual civilian. The most obvious scenario is a BWC video of an individual engaged in criminal activity, but that is hardly the only possible example. By recording victim or witness statements—particularly “good” statements by confident, articulate witnesses or visibly emotionally distraught victims with whom a jury is likely to sympathize—officers can collect valuable evidence. Prosecutors can then use that evidence to bolster their prosecutions with something more salient than a dry, written account and more predictable than courtroom testimony. Similarly, a video recording of the suspect's interrogation—which is unusual in the field even at police agencies that require or recommend recording station-house interviews—can be a powerful record of a damning confession. Defense attorneys, on the other hand, can use BWC videos to identify legal violations, such as failing to provide the *Miranda* warnings or conducting unconstitutional searches. Further, defense attorneys may use video evidence to raise questions about the underlying evidence by highlighting discrepancies in witnesses' statements or poor

123. John Gramlich & Kim Parker, *Most Officers Say the Media Treat Police Unfairly*, PEW RES. CTR. (Jan. 25, 2017), <http://www.pewresearch.org/fact-tank/2017/01/25/most-officers-say-the-media-treat-police-unfairly/> [https://perma.cc/YCU5-WUDZ]. A Pew Research Center survey, for example, found that eighty-one percent of officers either agreed or strongly agreed that police are treated unfairly by the media. *Id.*

124. Stoughton, *supra* note 78, at 663.

investigative procedures.¹²⁵ Body-worn camera video of the crime scene, the impoundment of evidence, the counting of seized currency, the interrogation of the suspect, and other investigative steps can provide documentation of what officers did and, even more importantly, how they did it. Such a record is of obvious value: video can serve as documentation of a good investigation and as a way to identify and address shortcomings in a poor investigation. The principal tactical value will go to officers and prosecutors, who have the first opportunity to review BWC video. Well before a defense attorney has access to the video, officers and prosecutors can use it to determine how to best proceed with an investigation or prosecution. Defense attorneys, meanwhile, will be able to use video to develop their own case theories, and judges and juries' fact-finding task may be simplified by the presence of video evidence.

Aggregation & Dragnet Surveillance. Body-worn camera videos will not just support specific investigations and prosecutions; they will also allow for investigations and prosecutions that would not have otherwise occurred. Hundreds or thousands of videos can be aggregated and mined, reviewed manually by officers or, more efficiently, by computer programs to develop information that may be utterly unrelated to any ongoing criminal investigation or prosecution.¹²⁶ Running a stockpile of video through a facial-recognition program and social network analysis, for example, can offer insights into an individual's movements over time and the identities of the people with whom the individual associates.¹²⁷ Existing video from traffic cameras, stationary pole-cameras, public/private security cameras, and the like already allow for such analysis, of course, but from a very different perspective: long distance and often from above, rather than close-range and from at or relatively near eye level. Further, the transportability of body-worn cameras means they can provide significantly more information about, *inter alia*, the inside of a house or business, streets in residential neighborhoods, backyards and enclosures, and so on. In

125. For example, a video may show officers conducting a shoddy interview by asking leading questions that consciously or unconsciously contaminate the subject's answers. See BRANDON GARRETT, CONVICTING THE INNOCENT 19–36 (2011).

126. See, e.g., United States v. Jones, 565 U.S. 400, 415–16 (2012) (Sotomayor, J., concurring); Steven M. Bellovin et al., *When Enough is Enough: Location Tracking, Mosaic Theory, and Machine Learning*, 8 N.Y.U. J. L. & LIBERTY 556, 564–65 (2014); Orin S. Kerr, *The Mosaic Theory of the Fourth Amendment*, 111 MICH. L. REV. 311, 345 (2012).

127. E.g., Sharon Nakar & Dov Greenbaum, *Now You See Me. Now You Still Do: Facial Recognition Technology and the Growing Lack of Privacy.*, 23 B.U. J. SCI. & TECH. L. 88, 89, 100, 104, 109–10 (2017).

this way, body-worn cameras have the potential to not just add a few extra data points to persistent surveillance but to dramatically expand its scope. As technology becomes more sophisticated, with hardware that allows for high-quality streaming and software that allows for real-time facial recognition and behavioral analytics, BWCs may alert officers when they detect an individual with an outstanding warrant or an individual whom an algorithm determines is acting suspiciously.¹²⁸

Body-worn camera video can be used to facilitate machine learning, in which massive amounts of data can be fed through a software algorithm so that “computer systems learn about an underlying process and its patterns by creating a useful mathematical approximation of how the process works. This approximation can then be applied to new data to predict future occurrences of the same phenomena.”¹²⁹ In the context of policing, technology companies are using machine learning to develop automated editing tools.¹³⁰ This may prove particularly important in the policing context given the need to redact at least some information from publicly-requested police videos and the significant resources that manual redaction requires. Redaction is hardly the only innovation that might come from running BWC videos through machine-learning algorithms; technologists could use them to train algorithms to identify, *inter alia*, the frequency and nature of an officer’s on-duty activities (for officer evaluation purposes), suspicious behavior,¹³¹ deception,¹³² rudeness¹³³ or unprofessional conduct by officers, behaviors that predict a

128. There are, of course, a variety of potential problems with such usage, including the invasion of privacy and the likelihood that algorithmic analysis can be contaminated by human biases. See, e.g., Julia Angwin et al., *Machine Bias*, PROPUBLICA (May 23, 2016), <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> [<https://perma.cc/KD8J-9579>]; see also Fan, *supra* note 13, at 398; Henderson, *supra* note 13, at 937–38; Levinson-Waldman, *supra* note 13, at 889.

129. Michael L. Rich, *Machine Learning, Automated Suspicion Algorithms, and the Fourth Amendment*, 164 U. PA. L. REV. 871, 875 (2016).

130. Neural Network for Video Editing, U.S. Patent Application No. 9,456,174, at 57 (filed Jan. 20, 2015) (describing “an automated video editing system”).

131. Rich, *supra* note 129, at 876.

132. See Verónica Pérez-Rosas et al., *Deception Detection Using Real-Life Trial Data*, PROC. 2015 ACM ON INT’L CONF. ON MULTIMODAL INTERACTION 59, 59 (describing a study which used a “multimodal deception detection system” to determine whether statements made during testimony were truthful).

133. See Lisa Pearl & Mark Steyvers, “C’mom – You Should Read This”: *Automatic Identification of Tone from Language Text*, 4 INT’L J. COMPUTATIONAL LINGUISTICS 12, 20–24 (2013) (studying machine learning techniques used to detect different tones, including rudeness, from text).

civilian's impending flight from or violent assault of officers,¹³⁴ behaviors indicative of mental illness or drug impairment,¹³⁵ and so on. Using the results of that machine learning could allow for the integration of body-cameras, GPS systems, and police computer-aided-dispatch systems.

Officers do not learn the same way that machine-learning algorithms do, of course, but modern police training involves a substantial number of videos. As a number of scholars have noted, police training heavily prioritizes real world experience,¹³⁶ and video offers a rare window into which would-be officers can see what the world is really like.¹³⁷ One common theme can be found in "officer survival" videos, which attempt to remind officers of the dangers of complacency¹³⁸ by showing officers being brutally attacked,¹³⁹ disarmed,¹⁴⁰ or killed. Indeed, it is the rare officer who has not seen the video-recorded line-of-duty deaths of Laurens County, Georgia Deputy Kyle Dinkheller¹⁴¹ or South Carolina Trooper Mark Coates.¹⁴²

134. See PAUL K. DAVIS ET AL., RAND CORP. NAT'L DEF. RESEARCH INST., USING BEHAVIORAL INDICATORS TO HELP DETECT POTENTIAL VIOLENT ACTS: A REVIEW OF THE SCIENCE BASE xiii–xiv (2013), https://www.rand.org/content/dam/rand/pubs/research_reports/RR200/RR215/RAND_RR215.pdf [<https://perma.cc/RR4T-2JNL>] (describing a study of recent and developing technologies used to "help detect potential violent attacks").

135. For example, officers can be trained as a "drug recognition expert[s]" who use a standardized protocol to "recognize impairment in drivers under the influence of drugs other than, or in addition to, alcohol." *Drug Recognition Experts (DRE)*, THE INT'L DRUG EVALUATION & CLASSIFICATION PROGRAM, <http://www.decp.org/drug-recognition-experts-dre/> [<https://perma.cc/XMQ6-7FQ7>].

136. DAVID A. HARRIS, FAILED EVIDENCE: WHY LAW ENFORCEMENT RESISTS SCIENCE 67 (2012); Seth Stoughton, *Evidentiary Rulings as Police Reform*, 69 U. MIAMI L. REV. 429, 456–60 (2015).

137. For example, in *The Line of Duty*, a police training company that started producing and marketing VHS video training to police agencies in 1995 and today offers "[o]ver 300 video courses covering virtually every aspect of law enforcement training" in a large library of streaming, downloadable, and DVD videos. *FAQs*, IN THE LINE OF DUTY, <http://www.lineofduty.com/faqs/> [<https://perma.cc/6P99-NHWT>].

138. See SCOTT FIELDEN, *THE MIND OF A COP: WHAT THEY DO AND WHY THEY DO IT* 21 (2009) ("If we have to use force to ensure our safety, we're going to do so. That's why we won't hesitate to come down on somebody like a ton of bricks in a tornado if we need to.").

139. Associated Press, *Police: Officer Punched During Traffic Stop*, YOUTUBE (Jul. 22, 2010), https://www.youtube.com/watch?v=eTcaF_6ILc.

140. PoliceOfficerSafety, *Officer Disarmed During Arrest*, YOUTUBE (Nov. 29, 2012), <https://www.youtube.com/watch?v=tVjVCVDEYIY>.

141. Deputy Dinkheller initiated a traffic stop and the motorist became belligerent and aggressive. Ignoring Deputy Dinkheller's repeated commands to the contrary, the motorist reached back into his vehicle, drew a rifle, and ultimately shot Deputy Dinkheller to death. See Thomas Lake, *The Endless Death of Kyle Dinkheller: The Trigger and the Choice*, CNN (Aug. 2017), <http://www.cnn.com/interactive/2017/politics/state/kyle->

Videos are also used to debrief officers after critical incidents and to train them for high-risk situations such as active shooters,¹⁴³ armed encounters,¹⁴⁴ and so on.

Where the prior examples of potential informational benefits are tightly related to policing itself, it is inevitable that news- and entertainment-media sources will feature BWC video and thus benefit from the additional information that BWCs can provide. Indeed, they have already done so. As of November 2017, the *first page* of a Google News search for “body-camera video” returned links to various news outlets reporting on BWC video that showed, *inter alia*, a Baltimore police officer verbally de-escalating a suicidal man armed with a knife,¹⁴⁵ a Los Angeles police officer allegedly planting cocaine in a hit-and-run suspect’s wallet,¹⁴⁶ a Cleveland sergeant who was criminally charged for using excessive force,¹⁴⁷ and

dinkheller-police-video/ [https://perma.cc/S3GL-37A5] (“Two decades later, a traffic stop on a country road is still teaching police officers about deadly force—and the cost of hesitation.”). This video is most often used to teach officers about the dangers of hesitation.

142. Trooper Coates initiated a traffic stop and attempted to conduct a patdown of the motorist when the motorist drew a handgun, shooting Trooper Coates. Trooper Coates was able to use his radio to call for help, but his dispatcher and other officers did not know where he had conducted the traffic stop. Jeff Brown, *Corporal Mark Coates Shooting (Fatal)*, YOUTUBE (May 27, 2015), <https://www.youtube.com/watch?v=2FraE77I4fI>. This video is most often used to teach officers about the need to inform dispatch of the location of a stop before officers initiate the stop or interact with stopped subjects.

143. Most officers, I expect, have seen video from the 1997 armed robbery of a bank in North Hollywood, California. Matthew Cipolla, *The North Hollywood Shootout*, YOUTUBE (Mar. 12, 2017), <https://www.youtube.com/watch?v=d7dLeqEg6b8>.

144. JustPoliceVideos, *Kalamazoo, MI Police Respond to a Subject Openly Carrying Rifle*, YOUTUBE (Jun. 16, 2014), <https://www.youtube.com/watch?v=9Ap4reNEbyQ>.

145. Kevin Rector, *Body Camera Footage Shows Baltimore Police Officer De-Escalate Standoff with Armed Man in Crisis*, BALTIMORE SUN (Nov. 8, 2017, 1:15 PM), <http://www.baltimoresun.com/news/maryland/crime/bs-md-ci-villaronga-video-20171108-story.html> [https://perma.cc/6LHL-7VPN].

146. Amy Powell, *Attorney Says Body Cam Footage Shows LAPD Officer Planting Cocaine*, ABC7 (Nov. 10, 2017), <http://abc7.com/attorney-says-body-cam-footage-shows-lapd-officer-planting-cocaine/2631384/> [https://perma.cc/4BL4-SHKK].

147. Adam Ferrise, *Cleveland Police Officer Attacked Woman and Then Arrested Her on False Charges, Court Records Say*, CLEVELAND.COM (Oct. 5, 2017), http://www.cleveland.com/metro/index.ssf/2017/10/cleveland_police_officer_charg_12.html [https://perma.cc/4MLN-HYBP].

fatal police shootings in Providence, Rhode Island;¹⁴⁸ Santa Clara, California;¹⁴⁹ and Pueblo, Colorado.¹⁵⁰

In sum, body-worn cameras offer agencies and communities alike potential symbolic benefits, behavioral benefits, and informational benefits.

III. PRACTICAL LIMITATIONS

I assume, dear reader, that there is some significant likelihood that you would appreciate having more money. Have I got excellent news for you! The potential benefits of winning the lottery are simply tremendous, and the causal mechanism is almost laughably simple: play the lottery, win the lottery, report your win, and collect your earnings. In light of this startling, new information, I am confident that you feel a strong, nigh overpowering, temptation to run right out and buy yourself a lottery ticket. And yet, by virtue of the fact that you are reading this sentence,¹⁵¹ I must assume that you have not discarded this Article and run to the nearest store where lottery products are sold.¹⁵² Why not? After all, I have clearly identified the potential benefits of winning the lottery and the causal mechanism by which those benefits can be realized! Perhaps it is because you are aware of the immense practical challenges—namely, the nature of probabilities—that limit your ability to win the lottery.

Part II identified the potential benefits that body-worn camera systems may provide—symbolic benefits, behavioral benefits, and informational benefits—but, as the preceding paragraph makes clear, identifying the potential benefits and describing the causal mechanisms is only the beginning of the analysis. Whether it is fair to expect that any of the potential benefits can or will be realized requires additional consideration, assuming there is video available in

148. Amanda Milkovits & Jacqueline Tempera, *Providence Police Defend Shooting that Killed Pickup Truck Driver, Injured Passenger*, PROVIDENCE JOURNAL (Nov. 10, 2017, 8:52 PM), <http://www.providencejournal.com/news/20171110/providence-police-defend-shooting-that-killed-pickup-truck-driver-injured-passenger> [https://perma.cc/R5L4-VC7S].

149. Lisa Fernandez, *Body Camera Video Released in Fatal Santa Clara Shooting of 24-Year-Old Man*, KTVU (Nov. 3, 2017, 12:55 PM), <http://www.ktvu.com/news/body-camera-video-released-in-fatal-santa-clara-shooting-of-24-year-old-man> [https://perma.cc/JT57-82CG].

150. Chhun Sun, *Watch: Pueblo Police Release Video of Fatal Officer-Involved Shooting*, GAZETTE (Nov. 8, 2017), <http://gazette.com/watch-pueblo-police-release-video-of-fatal-officer-involved-shooting/article/1614856> [https://perma.cc/GQ9G-EGNL].

151. And apparently even reading this footnote.

152. I acknowledge, of course, that you may very well have done exactly that before returning to finish this Article. I would applaud such diligence, although the probability that my applause is called for seems vanishingly small.

the first place.¹⁵³ This Part explores some of the practical limitations of body-worn camera technology and of our ability to use that technology. The following Part addresses the policy considerations that can affect whether BWCs live up to their potential benefits.

A. *Limits of Technology*

Body-worn cameras are merely another variety of camera, and thus they suffer from the same limitations that we have known about since Nicéphore Niépce first projected an image onto a piece of paper coated with silver chloride some 200 years ago.¹⁵⁴ First and most prominently, there must be sufficient infrastructure to ensure that the relevant officers are equipped with cameras and that the relevant audiences can access the resulting footage of those interactions. The dominant approach at police agencies has been to equip patrol officers with body-worn cameras: by December 2017, for example, the Chicago Police Department had equipped every officer in its twenty-five patrol districts with a BWC.¹⁵⁵ That makes sense; the patrol function is typically the single largest division in most agencies, employing between sixty percent and ninety percent of sworn officers, and typically it is patrol officers who are most salient when it comes to solving crimes.¹⁵⁶ But patrol officers are hardly the only officers who interact with community members in potentially problematic ways; the behavioral and informational benefits of a body-worn camera system will be incomplete if other officers are not similarly equipped. At the Chicago Police Department, which is admittedly much larger than the average police agency, officers assigned to the Canine Unit, the Traffic Section, SWAT, Public Transportation, and the Troubled

153. See *infra* Section IV.A.

154. HELMUT GERNSEIM, A CONCISE HISTORY OF PHOTOGRAPHY 9 (3d ed. 1986).

155. Michelle Gallardo & Cate Cauguiran, *All Chicago Police Patrol Officers Now Equipped with Body Cameras, Department Says*, ABC 7 EYEWITNESS NEWS (Dec. 10, 2017), <http://abc7chicago.com/all-cpd-patrol-officers-now-equipped-with-body-cameras/2764478/> [<https://perma.cc/ZJ8S-UUSN>] (“Chicago now has the largest deployment of body cameras in the nation. . . . In total, more than 7,000 Chicago police personnel are now equipped with body cameras.”); see also Ryan Dunn, *Body Camera Issued to Each Patrol Officer at Toledo Police Department*, THE BLADE (Oct. 20, 2017), <http://www.toledoblade.com/Police-Fire/2017/10/20/Body-camera-issued-to-each-patrol-officer-at-Toledo-Police-Department.html> [<https://perma.cc/7VCE-BUMD>] (explaining a similar plan for patrol officers in Toledo, Ohio); Mark Wilson, *Austin Officers Who Patrol Neighborhoods to Get Body Cameras Soon*, MYSTATESMAN (Sept. 15, 2017, 4:41 PM), <http://www.mystatesman.com/news/local-govt-politics/austin-officers-who-patrol-neighborhoods-get-body-cameras-soon/tgcx33iP9pUjq2CW1lgD3I/> [<https://perma.cc/88NU-WKML>] (explaining that the Austin, Texas Police Department will soon “roll out its first large batch of body cameras for officers working outside of downtown”).

156. Seth W. Stoughton, *Policing Facts*, 88 TUL. L. REV. 847, 878–79 (2014).

Buildings Unit fall under the Bureau of Patrol but are not assigned to one of the twenty-five patrol districts.¹⁵⁷ Meanwhile, officers who investigate property crimes, violent crimes, and youth investigations and officers working in the Fugitive Apprehension Unit, the Major Auto Theft Investigation Unit, and the Violent Crimes Task Force are operationally in the Bureau of Detectives, which is not scheduled to receive body-worn cameras,¹⁵⁸ nor are officers who work in the Narcotics Division, the Gang Investigations Division, or the Vice and Asset Forfeiture Division, which are organized under the Bureau of Organized Crime.¹⁵⁹ In short, the first infrastructure problem arises from the difficult problem of equipping *all* officers, investigators, and detectives who regularly interact with the public by, *inter alia*, initiating stops, making arrests, and conducting interviews. The benefits that may accrue from equipping specialized units must be weighed against the unique challenges that doing so would entail.¹⁶⁰

Similarly, a majority of agencies allow their officers to work in a police capacity for private employers while off-duty,¹⁶¹ if these officers are not equipped with or required to wear BWCs,¹⁶² that absence can limit the behavioral and informational benefits of having the technology. Simply put, if officers are not wearing the cameras while they are working in a uniformed-police capacity—even if that work is performed for the private employer—cameras cannot record their

157. CHI. POLICE DEP'T, ORGANIZATIONAL OVERVIEW: BUREAU OF PATROL, attachment 4 (2017), <https://home.chicagopolice.org/wp-content/uploads/2014/12/org-for-command-DRAFT-87-CW-revisions-to-Forensic-Services-Division-15AUG17-FINAL.pdf> [<https://perma.cc/DF39-F3LV>].

158. *Id.* at attachment 5.

159. *Id.*

160. See JANNE E. GAUB, NATALIE TODAK & MICHAEL D. WHITE, BEYOND PATROL: EXPLORING THE PERCEPTIONS OF POLICE BODY-WORN CAMERAS AMONG OFFICERS IN SPECIALIZED UNITS III (2017), https://www.bwetta.com/sites/default/files/Files/Resources/Specialty%20Unit%20Report%20Final%202-17_1.pdf [<https://perma.cc/ZYG5-VZD3>] (“BWCs may not be appropriate for certain specialized units, and Department leadership should carefully weigh the advantages and disadvantages of deployment for each unit.”).

161. See Seth W. Stoughton, *Moonlighting: The Private Employment of Off-Duty Officers*, 2017 U. ILL. L. REV. 1847, 1849–50 (2017) (explaining that agencies often encourage moonlighting, which “increase[s] police visibility in the community” and “supplements agency staffing”).

162. AP Exclusive: *Moonlighting Police Leave Body Cameras Behind*, ABC NEWS (Jun. 11, 2017), <http://abcnews.go.com/amp/Technology/wireStory/ap-exclusive-moonlighting-police-leave-body-cameras-home-47965683> [<https://perma.cc/86ZV-MQT7>]; see also POLICING PROJECT, N.Y. UNIV. SCH. OF LAW, *NYPD Body-Worn Camera Proposed Policy: Fact Sheet*, POLICINGPROJECT.ORG <https://policingproject.org/nypd-body-worn-camera-proposed-policy-fact-sheet/> [<https://perma.cc/UJ79-HLB9>] (summarizing the NYPD body-cam policy without mention to any off-duty protocol).

interactions and are unlikely to exert any influence on behavior. Worse, the failure to equip officers with BWCs can undermine the symbolic benefits by leading community members to conclude, even unfairly, that the agency's efforts were superficial and not seriously intended to improve transparency and accountability.

On the other side of the camera, inadequate infrastructure—that is, insufficient time and resources—can preclude everyone who needs to see the video to achieve the desired benefits from being able to do so. A supervisor cannot effectively use BWC videos to more closely monitor the officers on her squad if, for example, the current demands on her time are already so burdensome as to limit or preclude her from reviewing the videos. Beyond police supervisors, several aspects of the potential informational benefits require prosecutors, defense attorneys, and judges to be able to access video recordings. Several manufacturers record video in proprietary file formats, which either require special software to review or which must be manually exported in a different format, marginally reducing availability.¹⁶³ Finally, internet-based video management systems, such as Axon's (formerly known as TASER International) Evidence.com, require viewers to accept "Terms and Conditions" before viewing the video; several defense attorneys have refused to do so, arguing that such an arrangement "effectively requires users to sign away some of their legal rights in exchange for receiving public records" that they have a right to obtain and review.¹⁶⁴ In short, if cameras are not where we need them to be and the relevant entities cannot or will not review the footage, the technology is unlikely to fulfill the full extent of the potential benefits.

Even when there is video footage from the proper person to review and the proper person actually reviews it, a body-worn camera still suffers from unavoidable practical limitations. Most obviously, someone can obscure the object from the camera: an officer's arm may get in the way or a drop of rain on the exterior of the lens may distort the image. Just as importantly, however, is the camera's limited field of view, meaning the extent of the visible image. An officer's BWC will never capture the details of that officer's

163. SAVER PROGRAM, SCI. AND TECH. DIRECTORATE, U.S. DEP'T OF HOMELAND SEC., BODY-WORN VIDEO CAMERAS FOR LAW ENFORCEMENT MARKET SURVEY REPORT 2-3 (2015), https://www.dhs.gov/sites/default/files/publications/Body-Worn-Cams-MSR_0615-508_1.pdf [<https://perma.cc/2RZU-2JP5>].

164. Janus Kopfstein, *Police Body Camera Giant Made Lawyers Sign Away Client Footage*, VOCATIVE (May 12, 2017 3:53 PM), <http://www.vocativ.com/429096/police-body-camera-taser-axon-made-lawyers-sign-away-client-footage/index.html> [<https://perma.cc/RG9L-VLQD>].

behavior—their stance, body language, and specific movements—simply because the camera is outward looking. In cases where it is important to know, for example, exactly when an officer drew their baton or raised it up to strike, the officer's BWC footage simply will not help answer that question.

Further, a camera's field of view is narrower than of the human eye. The human eye has, in most cases, a rather large horizontal field of view. To test this, put your arms straight out in front of you and start wiggling your fingers. Keeping your eyes focused straight ahead, slowly open your arms while you continue to wiggle your fingers. Stop opening your arms when you can just barely see your fingers moving out of the corners of your eyes. Most people will find that they have opened their arms somewhere between 170° and 200°. Cameras have substantially more restricted fields of view. The Axon Body 2 has one of the widest available horizontal fields-of-view at 143°. ¹⁶⁵ The Viewu LE3 body-worn camera, in contrast, has a 68° diagonal field of view. ¹⁶⁶

At the same time, however, a camera's effective field of view is actually wider than that of the human eye. Everything that appears within the camera's field of view is in focus, but human vision is more limited. Our central angle of view is 40–60°, and the field of sharp visual acuity, known as *fovea* or *foveal* vision after the *fovea centralis*, gives us only about two degrees of sharp focus. ¹⁶⁷ To “see” objects that do not fit within *foveal* vision, we must move our eyes around the image so that our brain can stitch together the different pieces we have put in our fovea. ¹⁶⁸ To demonstrate this, stand about arm's length from someone and ask him to describe your face; watch his eyes and you will see them shifting back and forth as he moves his *foveal* vision around your face. Cameras, however, have no such limitations. In short, sometimes officers will see things that the camera does not (as when the camera is pointed straight ahead and the officer sees something at the edge of their vision) and sometimes the camera will see things that the officer does not (as when the

165. AXON Body 2, AXON, <https://www.axon.com/products/body-2> [<https://perma.cc/QD47-HY3A>].

166. *Body Camera Comparison: A Look at Camera Specs Side-by-Side*, MIAMI VALLEY RISK MANAGEMENT ASSOCIATION, <http://www.mvrma.com/pdfs/BWC%20comparison%20chart.pdf> [<https://perma.cc/LZR4-7MKA>].

167. Robert P. O'Shea, *Thumb's Rule Tested: Visual Angle of Thumb's Width is About 2 Degrees*, 20 PERCEPTION 415, 415 (1991).

168. Alex Burmester, *How Do Our Brains Reconstruct the Visual World?* THE CONVERSATION (Nov. 5, 2015, 6:11 AM), <http://theconversation.com/how-do-our-brains-reconstruct-the-visual-world-49276> [<https://perma.cc/S2QB-6ZEG>].

officer's vision is focused on a subject's right hand but the camera can see both hands).

Field of view can also affect the viewer's perception of distance. Imagine two cameras set up the same distance from a person. In the video from the camera with the narrower field of view, the person will appear closer than he does in the video from the camera with the wider field of view. And both will look different than if you placed your eyes where the cameras were located. Anyone who has attempted to photograph something only to be disappointed in how small the object turns out in the picture has seen firsthand an everyday example of the difference between her own field of view and a camera's.

Digital video recording technology also presents some practical limitations on informational benefits of body-worn cameras. Consider a high-definition image with a resolution of 1920 by 1080, or 1920 pixels horizontally by 1080 pixels vertically, for a grand total of 2,073,600 pixels. Video is nothing more than a series of still images recorded in sequence and played back at a high enough rate—known as the “frame rate”—that our brains see movement and motion. With a standard twenty-four-frame rate video, then, there are twenty-four separate images in each second of video, which means that one second of video made up of separate digital images (known as “raw” video) would have 49,766,400 pixels.¹⁶⁹ For many devices, that would be memory-prohibitive: it would simply take more electronic space than most devices have. The solution is compression of digital video, which one article refers to as “the art of throwing as much data away as possible without it showing.”¹⁷⁰ The article explains:

By the end of the 1990s, the dominant techniques were based on a three-stage algorithm known as DCT (Discrete Cosine Transform). DCT uses the fact that adjacent pixels in a picture – either physically close in the image (spatial) or in successive images (temporal) – may be the same value. A mathematical transform . . . is performed on grids of 8×8 pixels (hence the blocks of visual artefacts at high compression levels). It doesn't reduce data but the resulting coefficient frequency values are no longer equal in their information-carrying roles. Specifically, it's been shown that for visual systems, the lower frequency components are more important than high frequency ones. A

169. Ryan Knott, *Frame Rate: A Beginner's Guide*, TECHSMITH (March 28, 2017), <https://www.techsmith.com/blog/frame-rate-beginners-guide/> [https://perma.cc/HE5Z-V5K6].

170. *Digital Video Compression*, PCTECHGUIDE, <https://www.pctechguide.com/digital-video/digital-video-compression> [https://perma.cc/48H4-99HE].

quantisation process weights these accordingly and ejects those contributing least visual information, depending on the compression level required.¹⁷¹

In layman's terms, the software applies a "codec" that reviews the separate still images in each frame and looks for small pieces of the image that are similar to each other. If the pieces are sufficiently similar, the software discards one of them and keeps the other, displaying it in both frames. The codec repeats this for the next frame of the image in which it detects no changes or only changes that it believes would not be visible to the human eye.¹⁷² In short, a compressed recording from a digital-video camera, including a BWC, is not a reflection of still pictures taken every 1/24th of a second and then put together; instead, it is a collection of pieces of still pictures that are reassembled according to the instructions in the codec. The quality of the codec, then, can affect whether compressed video is an accurate reflection of what it recorded.

Body-worn cameras can provide informational benefits, but those benefits are only as good as the practical limitations of the hardware allow. Despite the superficial similarities, BWCs are not just another source of visual and auditory information akin to human eyes and ears. Even a head-mounted camera will not provide an officer's-eye view of the situation, to say nothing of and shoulder or chest-mounted cameras, and the human eye cannot see the infra-red spectrum the way some cameras can. In short, BWCs will record less, more, and differently than a human would see, all at the same time.

B. Limits of Human Interpretation

The potential for body-worn cameras to have informational benefits assumes that viewers will be able to accurately interpret the recorded videos, but just as digital cameras have inherent limitations, so too do their users. We all suffer from a range of cognitive limitations that can affect our ability to interpret evidence, including video footages. Cognitive biases are, in essence, mental frameworks that help us analyze the otherwise overwhelming flood of information that we perceive in every conscious moment. Without our ever being aware of it, our brains seek to reduce the amount of effort that processing information requires by filtering current perceptions through the lenses of previous experience, identity, and expectation,

171. *Id.*

172. For an easy to follow explanation of this concept, see David Shelburne, *Digital Video Compression*, YOUTUBE (Mar. 16, 2014), <https://youtu.be/nOo3SCihTZI?t=116>.

drawing associations between certain observations and predicted outcomes or possibilities.¹⁷³

One such cognitive bias is motivated reasoning, defined as “the tendency of people to conform [their] assessments of information to some goal or end [other than] accuracy.”¹⁷⁴ When evaluating information, legal scholar and psychologist Dan Kahan explains,

[t]he goal of protecting one’s identity or standing in an affinity group that shares fundamental values can generate motivated cognition relating to policy-relevant facts If a proposition about some policy-relevant fact comes to be commonly associated with membership in such a group, the prospect that one might form a contrary position can threaten one’s standing within it.¹⁷⁵

Relatedly, the tendency to interpret information in a way that confirms one’s preexisting worldview or beliefs—what Kahan calls “identity-affirmation” or “identity-protective cognition”¹⁷⁶—also affects the way we see the world. Together, motivated reasoning and identity confirmation bias can lead us to unconsciously interpret evidence, including video, so that we see what we expect and want to see.

In the policing context, a study by YouGov can serve as an example of motivated reasoning and confirmation bias in perceptions of police officer and subject honesty. Respondents were given a hypothetical situation in which a police officer has arrested a suspected criminal and “both are complaining that they have been assaulted by the other.”¹⁷⁷ Respondents were asked who was most likely to be telling the truth. Among white respondents, 44% believed the officer was most likely telling the truth, 29% believed they were equally likely to be telling the truth, and 7% believed the suspect was most likely telling the truth.¹⁷⁸ Among black respondents, only 4%

173. DANIEL KAHNEMAN, THINKING FAST AND SLOW 20–21 (Farrar, Straus & Giroux eds., 2011) (describing the dual process theory of human cognition, comprised of “System 1” thinking, which consists of subconscious reflexive assessments and responses to sudden stimuli and “System 2” thinking, which is marked by conscious deliberation or the use of logic).

174. Dan M. Kahan, *Ideology, Motivated Reasoning, and Cognitive Reflection*, 8 JUDGMENT & DECISION MAKING 407, 408 (2013).

175. *Id.*

176. Dan M. Kahan & Donald Braman, *Cultural Cognition and Public Policy*, 24 YALE L. & POL’Y REV. 149, 150 (2006).

177. *Reveal Public Survey on Body Worn Cameras*, YUGOV, PLC (Sept. 2015) (on file with the North Carolina Law Review).

178. *Id.*

thought the officer was likely to be telling the truth, 41% thought they were equally likely to be telling the truth, and 20% thought the suspect was likely to be telling the truth.¹⁷⁹ Respondents lacked any reliable information upon which to base their conclusions about the officer's and suspect's honesty, so their perceptions were shaped instead by their own identities and expectations. The results are consistent with the findings of well-known studies finding that whites and blacks report very different levels of confidence in the police.¹⁸⁰

The same phenomenon plays out when individuals watch videos; their perceptions of the video will be affected by their prior attitudes toward the police.¹⁸¹ I worked with *The New York Times* to develop an interactive feature that involved viewers identifying their perception of police and interpreting a series of ambiguous videos. The methodology was not scientifically rigorous—some questions had 55,000 responses while some had more than 77,000 responses, viewers could submit responses multiple times, and there was no way to control the environment in which viewers watched the video or whether a previous viewer shared information about the video with a future viewer—but the results were nevertheless notable. After watching a video of an officer who approaches a vehicle and then falls to the ground as the driver exits the vehicle, viewers were asked whether they saw a “serious threat” to the officer: a serious threat was reported by twenty-eight percent of individuals who indicated that they generally trust the police, but only by nineteen percent of the individuals who indicated that they generally distrust the police.¹⁸²

In a much more rigorous study, Roseanna Sommers tested study participants by first evaluating whether they identified with the police (“high identifiers”) and then determining whether that identification affected their evaluation of videos from three police interactions.¹⁸³ Study participants were asked about the facts of each video, whether the officer was fair, and whether the officer's actions were

179. *Id.*

180. See, e.g., RICH MORIN & RENEE STEPLER, PEW RESEARCH CTR., THE RACIAL CONFIDENCE GAP IN POLICE PERFORMANCE 3 (2016), <http://www.pewsocialtrends.org/2016/09/29/the-racial-confidence-gap-in-police-performance/> [<https://perma.cc/4L9S-66L6>].

181. See Roseanna Sommers, *Developments in the Law—Policing: Considering Police Body Cameras*, 128 HARV. L. REV. 1794, 1812–14 (2015) (discussing the questionable objectivity of body-camera video).

182. Timothy Williams et al., *Police Body Cameras: What Do You See?*, N.Y. TIMES (Apr. 1, 2016), <https://www.nytimes.com/interactive/2016/04/01/us/police-bodycam-video.html> [<https://perma.cc/L2AU-AWG5>].

183. Roseanna Sommers, Note, *Will Putting Body Cameras on Police Reduce Polarization?*, 125 YALE L.J. 1304, 1318–22 (2016).

appropriate.¹⁸⁴ She found that “viewers’ prior attitudes toward the police color their interpretations of the events caught on tape.”¹⁸⁵ Specifically,

[f]or factual judgments, across all three videos, respondents who strongly identified with police were more likely to find facts favoring the police. In other words, high identifiers were less likely to agree that the officer displayed or used weapons, that the officer used insulting language, or that the citizen complied with the officer’s requests. A similar pattern was observed for fairness judgments, the second outcome variable. Across all three videos, high identifiers thought the police officer acted more fairly and respectfully than did low identifiers. On the third outcome variable—global judgments—the same pattern was again observed. High identifiers were more likely than low identifiers to find that the police officer acted appropriately and lawfully. They were less likely to believe that the police officer deserved punishment.¹⁸⁶

Even more importantly, Sommers found that video was about as susceptible to motivated reasoning as other forms of evidence, leading her to conclude that “video evidence is not worse than other types of testimony, but whether it is superior to the alternatives remains an open question.”¹⁸⁷ However, she notes, individuals who saw video are more certain that their conclusions are correct than individuals who reviewed other forms of evidence: “When we compare the responses of participants given video and nonvideo testimony, we find that those who saw the videos and already identified with the police were more likely to express certitude in their judgment that the officer had acted reasonably or unreasonably.”¹⁸⁸

Beyond our own general tendency to view (video) evidence in a way that confirms our preexisting worldview, there are specific biases that can limit our ability to draw accurate conclusions from video. One such cognitive limitation is “camera perspective bias,” illuminated in the interrogation context by Daniel Lassiter and his co-authors. In their study, actors reenacted a police interrogation that was recorded in five different ways: there was a written transcript, an audio recording, a video recording taken from over the detective’s

184. *Id.*

185. *Id.* at 1304.

186. *Id.* at 1322–23.

187. *Id.* at 1345.

188. *Id.* at 1346.

shoulder and focused on the suspect (the “suspect-focus” camera), a video recording taken from over the suspect’s shoulder and focused on the detective (the “detective-focus” camera), and a video recording taken from a high vantage point with both the detective and the suspect in the frame (the “equal-focus” camera).¹⁸⁹ Study participants were assigned to view one of the five records of the interrogation and to evaluate how coercive or voluntary the suspect’s ultimate confession was. The participants who read the transcript, listened to the audio recording, or watched the equal-focus video reported roughly equal levels of coercion and voluntariness, but not so with the other two groups of participants.¹⁹⁰ The participants who watched the suspect-focus video reported a higher degree of voluntariness and a lower degree of coercion than the transcript, audio recording, and equal-focus groups, while the participants who watched the detective focus video reported a lower degree of voluntariness and a higher degree of coercion.¹⁹¹ The result demonstrates a cognitive psychology concept of “illusory causation,” which refers to people’s tendency to “overattribute causality to a given stimulus when it is salient or the focus of their attention.”¹⁹² In short, the participants who watched the suspect-focus video overestimated the extent to which the suspect was the cause of the confession *because* the suspect dominated the video they watched, while the participants who watched the detective-focus video did exactly the same with the detective. In later studies, Lassiter concluded that “people’s literal point of view affects how they initially perceive, or extract, information from an observed interaction, which in turn affects their judgments regarding the causal influence exerted by each interactant.”¹⁹³

Illusory causation has obvious implications for the potential for body-worn cameras to provide informational benefits. The various manufacturers of BWCs make a variety of models that officers can wear on their heads, shoulders/lapels, or chests, but as noted above, all of them are outward facing. Viewing recorded interactions through that keyhole will lead watchers to overattribute causality to the

189. G. Daniel Lassiter et al., *Accountability and the Camera Perspective Bias in Videotaped Confessions*, 1 ANALYSES SOC. ISSUES & PUB. POL’Y 53, 54–55 (2001); see G. Daniel Lassiter et al., *The Potential for Bias in Videotaped Confessions*, 22 J. APPLIED SOC. PSYCHOL. 1843 (1992) [hereinafter Lassiter, *Potential for Bias*].

190. *Id.* at 1847–48.

191. *Id.*

192. G. Daniel Lassiter et al., *Illusory Causation: Why it Occurs*, 13 PSYCHOL. SCI. 299, 299 (2002).

193. *Id.*

individuals with whom the officer is interacting. That tendency is problematic not just in the context of confessions, but also when viewers are being asked to determine the validity of a subject's consent to an officer's request to stop and chat or to search, the events that precipitated a subject's flight or an officer's use of force, and so on. Camera-perspective bias may suggest that officers are passive observers, merely reacting to the individuals they encounter, when that is not the case.

Interpretation of video is also subject to misinterpretation because of a phenomenon I have come to call "deceptive intensity," which refers to our tendency to overestimate the amount and speed of movement, and thus the intensity of the action, in body-worn camera footage. Deceptive intensity results from a confluence of the camera's location, the way BWCs move, and the way we perceive motion. With regard to the camera's location, Hollywood directors have known for years that positioning the camera underneath the subject so the upward angle of the shot exaggerates the subject's height and the breadth of their shoulders. A shoulder- or chest-mounted camera will duplicate that effect, particularly when officers are physically close to the subject being recorded. To see why, stand within arm's reach of someone roughly your height and lock eyes with them. Maintain eye contact and, while they remain standing, bend your knees until your eyes are roughly even with their chest (and where your chest had been when you were standing upright). The person in front of you will look substantially taller and may appear broader, and thus more intimidating. Further, as fear increases, our perception of distance changes; threatening individuals appear closer to us than non-threatening individuals.¹⁹⁴ And, of course, an individual who is *too* close to the camera will effectively block out the image entirely, leaving viewers to base their interpretations of events on the recorded sounds of the interaction.

Deceptive intensity also results from the exaggerated movement of the camera itself. Body-worn cameras clip onto glasses, hats, headbands, lapels, or shirts; even those that clip into mounts secured behind shirts or in bullet-proof vests are attached to clothing. Whatever the body-worn camera attaches to, it is not so tightly connected to an officer's body that it will mimic exactly her movements. Instead, it will bounce around, thrown about by the sway of an officer's head or the jostling of an officer's chest.

194. Shana Cole et al., *Affective Signals of Threat Produce Perceived Proximity*, 24 PSYCHOL. SCI. 34, 35 (2013).

Because of the way our brain interprets motions, however, we are unable to cognitively compensate for the exaggerated movement when we watch BWC video. The inner ear gives us our vestibular sense of body movement and balance, while proprioceptors in our muscles and joints give us a sense of proprioception, or where our body parts are.¹⁹⁵ These senses are reason that you are not generally dizzy when you wake up in a horizontal position and why you do not have to look for your hands; without any conscious activity on your part, your brain knows what position you are laying in and where your body parts are.¹⁹⁶ When you open your eyes, they provide additional data that your brain uses to calibrate your position and balance.¹⁹⁷ Your eyes are subject to the vestibulo-ocular reflex, which stabilizes your retina by moving your eyeballs slightly slower than you move your head.¹⁹⁸ Further, your brain engages in visual saccadic suppression; in the split second that your eyes are actually moving, your brain interrupts visual processing—you are temporarily blind without ever being aware of it.¹⁹⁹ This can be easily demonstrated by standing in front of a mirror and looking from one eye to the other; saccadic masking makes it impossible for you to ever see your own eye movements.

Your brain takes in and processes a massive amount of information to interpret movement and compensate for that movement as it processes visual signals, but that information is simply missing when you watch a video. Because we are not “in” the movement, we cannot feel the movement, and because it is not our bodies, eyes, and brains experiencing and recording the movements, the images are not steadied by the vestibulo-ocular reflex and saccadic masking. As a result, the movements can appear dramatically exaggerated. To see this for yourself, start recording a video on your smart phone and place the phone on your forehead so the camera is facing in the same direction that you are looking. Fix your eyes on something in front of you; keeping your eyes focused on whatever you selected and keep your phone firmly against your forehead. Now

195. *Human Vestibular System in Space*, NAT'L AERONAUTICS & SPACE ADMIN. (Feb. 26, 2004), https://www.nasa.gov/audience/forstudents/9-12/features/F_Human_Vestibular_System_in_Space.html [<https://perma.cc/8MGP-LAFM>].

196. *Id.*

197. *Id.*

198. Michael Fetter, *Vestibulo-Ocular Reflex*, in 40 *NEURO-OPHTHALMOLOGY: NEURONAL CONTROL OF EYE MOVEMENTS* 35 (A. Straube & U. Büttner eds., 2007).

199. Bruno G. Breitmeyer & Leo Ganz, *Implications of Sustained and Transient Channels for Theories of Visual Pattern Masking, Saccadic Suppression, and Information Processing*, 83 *PSYCHOL. REV.* 1, 26 (1976).

use the tip of your nose to spell your full name in the air as quickly as you can. When you finish, remove the phone from your forehead and stop recording. Did you have any trouble keeping your eyes focused on the object you were looking at? No, almost certainly not. Now watch the video; the object you had no trouble keeping in focus is probably jumping in and out of the frame, whipping around like mad. Could someone who watched the video without any prior knowledge of how it was filmed conclude that you were sitting or standing calmly and wiggling your nose in the air?

I demonstrate the application of this phenomenon in the police context using a video of a simulated foot pursuit in which I play the role of an officer, wearing a Bodycam brand BWC, chasing a fleeing suspect played by one of my students. The link to the video is in the footnote;²⁰⁰ I urge readers to view the video and to evaluate each separate section—body-worn camera video of the foot pursuit without audio, body-worn camera video of the foot pursuit with audio, and a bystander’s video of the foot pursuit—on a scale from one (a normal walking pace) to ten (Usain Bolt sprinting downhill with a tailwind). Is your perception of the speed of the foot pursuit from the BWC video faster or slower than your perception of speed in the bystander’s video?

At this point, one might be forgiven for assuming that our interpretation of video would be more accurate if viewers had more time to process the recorded events. That assumption, though, is not borne out by the evidence. Not only is there no evidence to suggest that slowing the video down will allow for an improved interpretation of movement, but work published last year in the Proceedings of the National Academy of Sciences suggest that a “slow motion intentionality bias” leaves us ill-equipped to properly interpret slow-motion video.²⁰¹ In a series of eight different experiments, Eugene Caruso asked study participants to review a video of a real-world incident—either a murder or a violent contact in professional football—and evaluate the extent to which the actor intended their actions.²⁰² Some study participants were shown a full-speed video, while others were shown a slow-motion video.²⁰³ Unsurprisingly, the participants who reviewed the slow-motion video reported that the

200. SethS, *BWC Interpretation: Foot Pursuit*, YOUTUBE (Nov. 18, 2017), https://www.youtube.com/watch?v=4_x9_DrwoNU&feature=youtu.be.

201. Eugene M. Caruso et al., *Slow Motion Increases Perceived Intent*, 113 PROCEEDINGS OF THE NAT’L ACAD. SCI. 9250, 9250 (2016).

202. *Id.*

203. *Id.*

actor acted with a higher degree of intent and deliberation than did the participants who watched the regular speed video.²⁰⁴ What is surprising, however, is that participants reported similar results even when they were informed, by way of a timer in the video, exactly how much the video had been slowed.²⁰⁵ And, perhaps most surprising of all, viewers who watched a slow-motion video continued to report a higher degree of intent even after they watched the regular speed video: “allowing viewers to see both regular speed and slow motion replay mitigates the bias, but does not eliminate it.”²⁰⁶

These biases may be even more troubling given our propensity to be highly confident in our own conclusions, a tendency that may be artificially bolstered even further when our conclusions are based on our review of video evidence.²⁰⁷ Watching a video of an event does not make us an eye witness to the event, despite our inclinations to the contrary. This can be particularly problematic in the legal context; as Erwin Chemerinsky has written, “[I]t is deeply troubling when an appellate court, acting on its own, watches a tape and decides the facts of a case for itself.”²⁰⁸ The same may be true in an administrative review of an officer’s actions; the relevant question is often whether an officer’s perceptions are reasonable, not whether they are *accurate*.²⁰⁹ Properly reviewing an officer’s use of force, for example, requires treating the officer as the initial finder of fact and reviewing their findings (that is, their perceptions) to determine whether they were reasonable under the circumstances.²¹⁰ The risk of a reviewer interjecting themselves as a witness is exacerbated further by cognitive illiberalism, the risk that believing that our own perceptions and conclusions are inherently *more* objective and reasonable than conflicting perceptions and conclusions will lead us to discount or ignore those who disagree with us.²¹¹

204. *Id.* at 9251.

205. *Id.* at 9252.

206. *Id.* at 9250.

207. Sommers, *supra* note 183, at 1345–46.

208. Erwin Chemerinsky, *A Troubling Take on Excessive-Force Claims*, 43 TRIAL 74, 76 (2007).

209. *See, e.g.*, *Graham v. Connor*, 490 U.S. 386, 396 (1989).

210. SETH W. STOUGHTON ET AL., INVESTIGATING AND EVALUATING POLICE USES OF FORCE, CH. 2 (forthcoming 2018).

211. Dan M. Kahan et al., *Whose Eyes Are You Going to Believe? Scott v. Harris and the Perils of Cognitive Illiberalism*, 122 HARV. L. REV. 837, 842–43 (2009).

IV. POLICY CONSIDERATIONS

The prior Part identified two types of practical considerations that will play a significant role in determining whether BWCs can achieve the desired results. This Part looks beyond the inherent limitations by examining how the way we *use* body-worn cameras will inevitably affect the end results of that use. There is no single “correct” and obviously superior way of using body-worn cameras; the question, instead, is whether the adoption and implementation of body-worn cameras will advance the anticipated benefits or whether their use will actually undermine those goals.²¹²

This Article fully endorses the conceptual framework that Richard Myers suggests: applying the “life cycle of the video” approach to BWC implementation decisions.²¹³ My work here is intended neither to supplant that approach nor to offer a comprehensive application of it. There are, of course, a massive range of policy considerations that are best addressed through consultation with stakeholders, including officers themselves, interest groups such as the prosecution and defense bar, and individual community members. Policies relating to officer and civilian privacy, notification that an officer is recording and that civilians have (or do not have) the right to request the officer to not record in different situations, the transmission and storage of digital video, retention periods, automated analysis, provision of video to private technology companies for machine-learning purposes, et cetera, can all affect the ultimate results of an agency’s BWC program. This Article’s goal is to engage in a very limited analysis of policy concerns by identifying four particularly thorny issues that will exert a substantial impact on the end effect of body-worn camera programs: video creation, supervisory review, officer review, and discretionary release.²¹⁴

212. See, e.g., THE CONSTITUTION PROJECT, GUIDELINES FOR THE USE OF BODY-WORN CAMERAS BY LAW ENFORCEMENT 16 (2016), <https://constitutionproject.org/wp-content/uploads/2016/12/BodyCamerasRptOnline.pdf> [<https://perma.cc/T2TC-MR4N>] (noting that body-worn cameras “ha[ve] the potential to undermine trust in casual encounters or foment distrust of officers engaged in community policing”).

213. Richard E. Myers II, *Police-Generated Digital Video: Five Key Questions, Multiple Audiences, and a Range of Answers*, 96 N.C. L. REV. 1237, 1237 (2018).

214. For additional reading on these and other BWC policy issues, see generally MICHAEL D. WHITE ET AL., KEY TRENDS IN BODY-WORN CAMERA POLICY & PRACTICE: A TWO-YEAR POLICY ANALYSIS OF US DEPARTMENT OF JUSTICE-FUNDED LAW ENFORCEMENT AGENCIES (2017), <http://bwctta.com/sites/default/files/Files/Resources/Policy%20Analysis%20Year%202%20FINAL.pdf> [<https://perma.cc/CUD2-L8U6>].

A. Video Creation

When will officers activate their BWCs? Which interactions will be recorded and which will not? If an agency or community adopted body-worn cameras with the goal of gathering more information—regardless of how that information will be used—*not* recording an interaction obviously fails to advance that goal. Worse, it may affirmatively undermine the *other* potential benefits, both behavioral and signaling. An officer who has not bothered to activate her camera not only has no extra motivation to behave properly but may actually be perversely incentivized to behave in ways that she knows are inappropriate; freedom from observation may serve to relax the bounds of professional behavior. More directly, while some agencies and communities adopted body-worn cameras with the intent to improve police-community relations, an officer's failure to record may actually reduce public trust. In one recent officer-involved shooting, an in-car camera system recorded an officer initiating a traffic stop then pursuing the fleeing suspect on foot until both are out of the range of the in-car camera. The officer's body-worn camera was activated some time later, capturing the shooting itself.²¹⁵ The officer's report indicates that the suspect attempted to point a handgun at him, leading to a physical struggle, but those events are described as happening *after* the officer chased the suspect out of range of the in-car camera system and *before* the officer activated his body-worn camera.²¹⁶ As in the pre-BWC era, the only available evidence is the officer's own description of events. The problem with that, of course, is that it is all too easy for community members to draw damning inferences from the absence of video in an incident that could have, and should have, been recorded, especially when BWCs were adopted, in large part, to reduce civilian distrust of the police.

Agencies must identify, *ex ante*, those situations in which officers are required to record, those situations in which officers are permitted to record, and those situations in which officers are prohibited from recording. Further, they should draft that policy with an eye to advancing the potential benefits that led them to adopt body-worn

215. City of Burlington Iowa, *2017 Oct 01 Body Cam Video Officer Riffel*, YOUTUBE (Oct. 12, 2017), <https://www.youtube.com/watch?v=d9g37tVHiR8>; City of Burlington Iowa, *2017 Oct 01 Body Cam Video Officer Chiprez*, YOUTUBE (Oct. 12, 2017), <https://www.youtube.com/watch?v=g54JfDAT1AQ>.

216. Letter from Scott D. Brown, Special Assistant Attorney Gen., Iowa Dep't Justice, to Amy Beavers, Des Moines Cty. Attorney (Oct. 12, 2017), <http://www.burlingtoniowa.org/DocumentCenter/View/1958> [<https://perma.cc/6RHH-MNEW>].

cameras in the first place. An agency that adopted this expensive new technology for the express purpose of changing officer behavior during police-civilian interactions, for example, might lean toward adopting a policy that broadly requires officers to record all or most of those interactions. An agency that is seeking to leverage the informational benefits of BWCs to support their investigations and prosecutions, on the other hand, might adopt a more limited policy that gives officers substantially more discretion to record when they believe it is to their benefit.²¹⁷

B. Supervisory Review

An agency policy that sets out clear standards for mandatory, permitted, and prohibited recording is a necessary component of a robust body-worn camera policy, but that policy means very little in the absence of enforcement. When the Phoenix, Arizona, Police Department first implemented its body-worn camera program, it adopted a fairly broad mandatory recording policy: with a few exceptions, officers were directed to record essentially all of their investigative or enforcement-related encounters with civilians.²¹⁸ Officers, however, did not record most of the incidents that they were required to record; they complied with the mandatory recording policy only 42.2% of the time.²¹⁹ By the end of the trial period, their compliance rate had slipped even further: only about 13.2% of the interactions that officers were required to record were actually being recorded.²²⁰ The Phoenix Police Department's mandatory recording policy was nothing more than a broadly worded paper tiger, in large part because supervisors were not recognizing, evaluating, or addressing officers' failure to abide by the policy. Not only did the lack of activations fail to advance the informational benefits that the BWC program could have provided, it undermined the potential behavioral benefits by establishing a policy violation as the standard operating procedure.²²¹

The Round Lake Park, Illinois, Police Department offers another example of how the failure to properly manage a BWC

217. A highly discretionary policy, however, may conflict with the agency's interest in the symbolic benefits including the potential for a body-camera system to improve public trust.

218. KATZ ET AL., *EVALUATING THE IMPACT*, *supra* note 87, at 17.

219. *Id.* at 21.

220. *Id.*

221. See PETER MOSKOS, *COP IN THE HOOD* 25 (2008); Seth W. Stoughton, *The Incidental Regulation of Policing*, 98 MINN. L. REV. 2179, 2229 (2014).

program can impact the program's ultimate success. More than eight months after the agency adopted a body-worn camera system, officers discovered that the cameras had been recording constantly, even when they were purportedly turned off or in "sleep" mode. Officers had inadvertently recorded themselves using the bathroom while on-duty and, even more troubling, recorded themselves and their families on their days off.²²² There are a number of troubling implications in that example, but one of them is that no one was reviewing the video footage; the police chief said "that he had been unaware of the recordings until an officer discovered them."²²³

When can and should supervisors review an officer's BWC recordings? Such a review could be made mandatory; supervisors could be required to check a random sampling of an officer's interactions with civilians to ensure both that the officer is recording when he are supposed to be and that an officer is performing his duties appropriately. Alternatively, such a review could be recommended, but discretionary. Or a supervisor could be prohibited from reviewing an officer's videos without some reason to do so, such as a civilian complaint. Under a restrictive review policy, the receipt of a complaint may allow a supervisor to review *all* of the officer's videos (to see, for example, whether the officer is engaging in problematic behavior as a matter of habit) or only the videos related to the specific complaint. Each policy choice has the potential to have some effect on the ultimate outcome of an agency's body-worn camera program.

C. Officer Review

One of the more controversial policy decisions is whether to allow officers to review body-worn camera footage prior to writing their reports. The most common approach appears to allow officers to do so without restriction; that is, officers may review BWC videos prior to writing any or all of their reports. Florida law, for example, now requires police agencies that have adopted body-worn cameras to "permit[] a law enforcement officer using a body camera to review the recorded footage from the body camera, upon his or her own initiative or request, before writing a report or providing a statement regarding any event arising within the scope of his or her official

222. Robert McCoppin, *Round Lake Park Cops Sue Village Over Body Camera Bathroom Videos*, CHI. TRIBUNE (June 24, 2016), <http://www.chicagotribune.com/news/local/breaking/ct-round-lake-park-police-camera-suit-met-20160624-story.html> [https://perma.cc/463R-EV6Z].

223. *Id.*

duties.”²²⁴ Other entities, including the National Association of Criminal Defense Lawyers and UpTurn, advocate for the opposite approach: officers should never be allowed to review video footage of an interaction before writing a report.²²⁵

The core concern relates to the potential for officers to base their reports on the body-camera video itself instead of their own perceptions or recollections. In the context of incident or arrest reports, which turn on objective facts rather than the officer’s perception, a pre-report review may be relatively unproblematic. An officer writing up a burglary report, for example, should be able to review the recorded interview with the victim so that the officer can include in the report a complete list and description of any stolen items. In the same vein, an officer writing up a DUI arrest would benefit from the ability to review BWC footage so that she can accurately record the ways in which the stopped motorist failed field sobriety exercises. Although officer reports are generally accurate, the availability of video can make them even *more* accurate, allowing agencies to reap the informational benefits of BWCs.²²⁶

Use-of-force reports, however, are a different story. The propriety of a use of force does not turn on the objective facts of the situation but on the reasonableness of an officer’s perceptions and actions. In this context, officers should not be able to review BWC footage before writing a report. Most obviously, it creates both the opportunity for deception and, even more importantly, the perception that there is nothing to prevent officers from engaging in deception. To the extent that deception occurs, it may well occur in some occasions as a result of the officer being put in a moral dilemma. Consider, for example, an officer who is interacting with a bellicose subject and notices, out of the corner of her eye, the subject ball his hands into fists. Fearing an attack, the officer preemptively uses force, bringing the subject to the ground. Upon reviewing the video, however, the officer sees that the subject’s hands, more clearly visible in the video than in her peripheral vision, were never balled into fists after all. What is that hapless officer to do? Ideally, perhaps, the officer would document her perceptions as well as her knowledge that

224. FLA. STAT. ANN. § 943.1718(2)(d) (West, Westlaw through 2018 Second Reg. Sess. of 25th Legislature through Mar. 30, 2018).

225. JOEL M. SCHUMM, NAT’L ASS’N OF CRIMINAL DEF. LAWYERS, POLICING BODY CAMERAS: POLICIES AND PROCEDURES TO SAFEGUARD THE RIGHTS OF THE ACCUSED 24–25 (2017); UPTURN, THE ILLUSION OF ACCURACY: HOW BODY-WORN CAMERA FOOTAGE CAN DISTORT EVIDENCE 7–9 (2017).

226. See, e.g., D. Dawes et al., *Body-Worn Cameras Improve Law Enforcement Officer Report Writing Accuracy*, 4 J. L. ENFORCEMENT 1, 7–9, 15 (2016).

her perceptions were inaccurate. Officers are only human, however, and it is entirely plausible to suspect that some number of officers in that position would leave out any mention of balled fists and instead find *something* in the video that they could use to justify their actions.

Beyond concerns about deception, allowing officers to view a video of events may unconsciously change their memory of those events.²²⁷ Human memory is not encoded like digital data; it is subject to decay and alteration without our ever being aware of it.²²⁸ Have you ever, for example, had an argument with a family member or significant other about a factual issue that both you and the other person remember clearly but entirely differently? Even though both parties in such an argument may be highly confident in their own memories, it is clear that one of them, and perhaps both of them, are not, in fact, remembering the events accurately. Because the constitutionality of an officers' use of force requires identifying their contemporaneous perceptions, allowing officers to potentially change their memory of those events can only hinder the accuracy of their report. Someone clearly needs to watch the video to determine whether the officer's perceptions were reasonable under the circumstances, but that is not a question for the officer herself.

Whether an agency allows an officer to review body-worn camera footage before writing a report, particularly a use-of-force report, can have a significant effect on the potential symbolic benefits, behavioral benefits, and informational benefits of a BWC program.

D. Discretionary Release

The last policy consideration I will discuss involves the discretionary release of BWC footage to the public or interested parties. Keith Scott was shot and killed by Charlotte-Mecklenburg police officers on September 20, 2016.²²⁹ Shortly after the shooting, the agency announced that several officers had been equipped with body-worn cameras and that there was video of the incident; however, the agency refused to release that video.²³⁰ The agency

227. UPTURN, *supra* note 225, at 5; Dawes et al., *supra* note 226, at 2.

228. See generally Elizabeth F. Loftus, *Creating False Memories*, 277 SCI. AM. 70 (1997) (discussing flaws and weaknesses of memory).

229. *Protests Break Out After Man Killed in Officer-Involved Shooting In Charlotte*, WCCB CHARLOTTE (Sept. 21, 2016), <http://www.wccbcharlotte.com/2016/09/21/suspect-dead-officer-involved-shooting-university-area/> [https://perma.cc/48V2-NG3J].

230. Ames Alexander, *CMPD Withholding More Than Two Hours of Video From Scott Shooting*, CHARLOTTE OBSERVER (Sept. 28, 2016), <http://www.charlotteobserver.com/news/special-reports/charlotte-shooting-protests/article104672831.html> [https://perma.cc/9V8U-Y6QZ].

instead furnished only a description of BWC video, saying the videos contained nothing of “relevance.”²³¹ The shooting had already received public attention and criticism, especially after Mr. Scott’s wife released a video she had taken on her cell phone, and the refusal to release the officers’ videos quickly exacerbated community tensions.²³²

Charlotte-Mecklenburg’s experience is by no means atypical; agencies that have used body-worn camera videos to promote positive images of their officers on social media and to defend their officers’ actions in the court of public opinion have also demonstrated some reluctance to release video that is ambiguous or suggestive of wrongdoing.²³³ And yet agencies that refuse to release video or do so only reluctantly can seriously undermine public trust; it is no great exaggeration to say that having body-worn cameras but refusing to release video will often prove worse, from a police-community relations standpoint, than not having BWCs in the first place. As the New Jersey Supreme Court wrote:

[I]n the case of a police shooting, non-disclosure of dash-cam videos can undermine confidence in law enforcement and the work that officers routinely perform. It can also fuel the perception that information is being concealed—a concern that is enhanced when law enforcement officials occasionally reveal footage that exculpates officers.²³⁴

The Seattle Police Department offers a powerful example of an agency that chose exactly the opposite approach, at least at one point: for an extended period of time, they posted redacted versions of all activity within seventy-two hours.²³⁵ Delaying the release allows investigators to find and interview the most important witnesses without undermining the integrity of the investigation, but having a specific, short-term deadline for release also mitigates public demands

231. *Id.*

232. Richard Fausset & Yamiche Alcindor, “Don’t Shoot Him”: Wife’s Pleas to Charlotte Police, N.Y. TIMES, Sept. 24, 2016, at A1.

233. Chicago’s prolonged refusal to release video from the Laquan McDonald shooting is another poignant example. Jason Meisner & Jeremy Gorner, *Chicago Forgoes Appeal After Judge Orders Release of Video of Fatal Police Shooting*, CHI. TRIBUNE (Nov. 20, 2015), <http://www.chicagotribune.com/news/ct-judge-orders-release-of-video-showing-fatal-shooting-by-police-officer-20151119-story.html> [<https://perma.cc/76JB-K3K4>].

234. N. Jersey Media Grp., Inc. v. Twp. of Lyndhurst, 163 A.3d 887, 907 (N.J. 2017).

235. Cole Zercoe, *How the SPD Is Using Youtube to Usher in a New Era of Police Transparency*, POLICEONE (May 11, 2015), <https://www.policeone.com/police-products/body-cameras/articles/8545907-How-the-SPD-is-using-YouTube-to-usher-in-a-new-era-of-police-transparency/> [<https://perma.cc/7B2E-QLTR>].

for information. Community members know that they will have the opportunity to view the video evidence for themselves, regardless of whether the video inculpatates the officer, exculpates the officer, or is entirely ambiguous. Such a policy avoids any appearance that the agency is hiding information or improperly protecting its officers, which can only bolster public trust.

There are, of course, a host of other policy issues that agencies will need to grapple with, from addressing the security of transmission and storage to the role, if any, of automated analytical tools and from how to best train officers to use BWCs on the street to how to best educate supervisors, investigators, and the public in the limits of video footage. This Part explored four especially thorny policy questions: When must, can, and mustn't officers activate their BWCs? When can and must supervisors check the existence or content of BWC footage? When can officers review BWC footage? And how should the agency handle the discretionary decision to release video footage when that release is not legally required? None of these questions are reducible to a single correct answer. Instead, the answers should be developed with an eye toward achieving the benefits that the agency, working with internal and external stakeholders, has identified and prioritized.

CONCLUSION

The adoption of BWCs is both widespread and growing, and it is not difficult to see why. Police executives and community leaders, elected officials and activists, officers and, of course, BWC manufacturers have identified with a wide array of potential benefits. Body-worn cameras promise to improve police-community relations, to reduce police uses of force, to enhance the accuracy of use-of-force investigations, to facilitate officer training, to definitely resolve complaints about officer rudeness, to discourage frivolous complaints, to support criminal prosecutions, to improve officer supervision, to assist in civil litigation, to build public trust, and so on. The assurances that a particularly technology will meaningfully improve various aspects of policing are nothing new. The same promises, or ones like them, were made in the context of in-car camera systems.²³⁶ How can the various claims be fairly assessed so that police agencies and the

236. Long-time police officers and policing scholars will recognize other innovations that were billed as "the solution" to a particular problem. Pepper spray and TASERs were both heralded in their time as significant, if not complete, solutions to the problem of police use-of-force.

communities they serve can determine whether and how to implement a body-worn camera program?

This Article offers a framework for thinking about body-worn cameras. It does so providing a taxonomy of benefits, by identifying limitations, and by discussing policy considerations. It classifies the potential benefits into three different categories and explaining the causal mechanism for each. The first category is *symbolic benefits*. Symbolic benefits include improvements to public trust and the perception of police legitimacy, which can strengthen the police-community relationship. An agency's adoption of BWCs can serve as a signal to constituents that the agency takes community concerns seriously and that the agency is taking affirmative steps to promote professional behavior among officers and reduce uses of force. The second category is *behavioral benefits*. Body-worn cameras, it is thought, can change both officer and civilian behavior; BWCs will encourage officers to comply with legal and administrative rules and will encourage both officers and civilians to be more civil in their interactions and to reduce resistance and aggression that can contribute to violent encounters. To the extent that we see behavioral changes, those changes may be the result of some combination of the observer effect, deterrence, conformity, or experiential updating. The final category is *informational benefits*. Video footage, it is commonly believed, is more accurate, objective, and comprehensive than other forms of evidence. Having video footage of police-civilian interactions will shine a critical light on "some of the most opaque domains of criminal procedure."²³⁷ The resulting information can be used for police accountability, criminal and civil litigation, investigations, training, machine learning, and in a host of other ways.

It would be a mistake, though, to assume that the adoption of body-worn cameras will lead inexorably to the fulfillment of their various promises. The Article identifies the inherent limitations of body-worn cameras, as well as the people who watch BWC videos, and describes how those limitations can weaken or even undermine cameras' potential value. Even when the limitations are not inherent in the technology or the individuals using the technology, merely *having* a piece of technology cannot begin to guarantee that an agency will enjoy the potential benefits. For that, a BWC program must be carefully considered *ex ante*, then implemented with an eye toward achieving the agency's goals. A successful implementation will, in most cases, require not just the acquisition of BWCs, but also

237. Fan, *supra* note 11, at 929.

appropriate policies, procedures, training, and supervision, not to mention some periodic assessment of performance and reconsideration of whether and how the technology is having the desired effect. Failure on one or more of those points may well result in a BWC undermining, rather than facilitating, the desired outcome. This Article identifies a non-exhaustive series of important policy considerations.

In that way, BWCs are no different than other tools. Tools should be used to accomplish normatively desirable tasks when they are an efficient way of accomplishing or facilitating that task. This Article has provided a framework that police executives, elected officials, and community members can apply to make more informed decisions about whether and how body-worn cameras can, in Judge Scheindlin's words, "serve a variety of useful functions."²³⁸

238. *Floyd v. City of New York*, 959 F. Supp. 2d 668, 685 (S.D.N.Y. 2013).

