Opening Up the Black Box: Understanding the Impact of Bodycams on Policing

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Abstract

Police forces in countries all over the world are using body cameras or considering the introduction of these small wearable devices. Most impact assessments are based on projects within one geographical area or jurisdiction. Yet, the results are sometimes seen as an answer to the general question: 'Do bodycams work: yes or no?' In the first part of this article, I present a meta-analysis aggregating nine impact assessments from three different countries. The average results are positive prompting the conclusion that bodycams work. However, the overwhelming majority of research on bodycams comes from the United States or the United Kingdom. As police forces in other countries try to copy projects from abroad, they quickly discover that bodycams are about much more than just acquiring the devices. Any bodycam program needs careful preparation and attention to implementation to enable the devices to work as intended. By looking at effectiveness from this perspective, a different question appears from underneath the average results: 'How do bodycams work, under what conditions and for whom?' In the second part of the article, I sketch a framework to help science and practice to answer this much more relevant and realistic question. Central tenets within this framework are mechanisms, context and implementation. The final part of the article focuses on two topics that are often overlooked, but might prove essential in the quest for transferable lessons on bodycams: the visibility of the bodycam and the guidelines regulating the use of the bodycams.

Keywords: bodycams, police, evaluation, meta-analysis, implementation

The rise of the body camera

Bodycams are small cameras that are worn on the person, that have at least one microphone and an internal data storage that allows audio and video footage to be recorded.[2] The cameras are typically located on the officer's chest, shoulder or head. In 2015, according to a trend analysis of the global market for bodycams, 135,000 bodycams were sold to police and other law enforcers, mainly in the North Americas and Western Europe. Markets in countries such as France, Germany and Benelux were predicted to grow rapidly at least until 2020 (IHS, 2016). Police forces in many other countries are also either using these wearable cameras or testing the technology. At the annual technology conference of the International Association of Chiefs of Police in 2016, the number of workshops about bodycams outnumbered all other topics, including cyber security, big data, predictive analytics and forensic science.[3]

1 Correspondence email: info@sanderflight.nl. I wish to thank Rylan Simpson for detailed comments on an earlier version of this article and the anonymous reviewers for their feedback.

2 The technology is known under different names in different countries: body-worn cameras or BWC (mostly in the United States and Australia) or body worn video or BWV (popular in the United Kingdom and Canada). In this article, I call them bodycams or body cameras.

3 An overview of all presentations is available here: http://www.iacp.org/2016LEIMPresentations.

In 2012, in a market review by the U.S. Department of Justice, eight different bodycams were compared (National Institute of Justice, 2012). Four years later, in 2016, a similar market review included 38 different vendors producing 66 different types of bodycams (Hung & Babin, 2016). Bodycams are becoming 'the new normal' inside the world of policing at an unprecedented speed, even when we compare them to other types of video technology that were very popular from the start, such as closed-circuit television or automated license plate readers (Lum et al., 2015).

Bodycams in The Netherlands

In The Netherlands, the police has experimented with wearable cameras for quite some time. The first small-scale experiments were done as early as 1997 when portable video cameras were attached to helmets of officers (Flight, 2017). A second, more centrally co-ordinated, test was organised in 2009 when bodycams were introduced in four of the 25 regional units. The aim was to reduce aggressive behaviour from citizens towards police officers. Although the evaluation documented some encouraging results and showed there was considerable support for the bodycams among the officers, the body cameras did not reduce the number of assaults on police officers[4] (Ham, Kuppens & Ferwerda, 2011). Based on the report, the leadership of the police decided not to roll-out bodycams on the national level. This decision created the space for local and regional forces to start their own experiments, which they did on a large scale.[5] A third wave of nationally co-ordinated experiments was recently announced by the Dutch National Police and is taking place in 2017 and 2018. A total of 32 experiments are conducted to answer the question whether bodycams can be added to the standard equipment of police officers.

Since 2011, no independent academic impact assessment of bodycams has been done in The Netherlands. There have been several high-quality studies in other countries. To make optimal use of these evaluations, a review of the available international literature was commissioned in 2016 by Police and Science. The aim was to better inform the Dutch National Police about the effects bodycams have on policing (Flight, 2017).[6] In this article, I first present a summary of the meta-evaluation that formed the starting point of that literature review. The second part of the article is about the challenges facing practitioners and policy-makers who hope to copy postive outcomes that were reached in other countries into their own social and legal context. The third part of the article highlights two specific issues that have not received the attention I believe they need: the visibility of bodycams and the policies regulating bodycams. But first, I describe the reasons why body cameras are almost universally regarded as 'inevitable', making it one of the very few types of surveillance that are embraced by nearly all stakeholders.

Everybody happy?

One of the main drivers behind the widespread introduction of bodycams within the world of policing, is the fact that support for the technology comes from a rainbow-coalition of politicians, civil rights activists and police officers. Political leaders embrace bodycams because they will 'build and sustain trust' between the police and the community (White House, 2014) and because they will increase police accountability and legitimacy (Mateescu, Rosenblat & Boyd, 2016). Civil rights advocates in many countries also support the introduction of bodycams, because they believe they will increase police accountability. If interactions between citizens and police officers are recorded, officers are expected to act in a professional manner and in accordance with official guidelines. And even if cameras don't prevent incidents, the recordings can still be used for internal sanctions or criminal investigations.

The police also like body cameras, even though it is popular to think that the main purpose of the bodycams is to expose police misconduct and correct it. Police leadership organizations publicly support bodycams and the cameras are rapidly adopted by them. Research into police officers' perceptions shows strong support for bodycams and that support becomes even stronger post-deployment (White & Coldren, 2017). Re-

4 One of the reasons might have been that the number of assaults against the police was small to begin with, making it unlikely that bodycams (or anything else, for that matter) could bring it down any further.

5 In 2011, one year after the decision was made not to roll out bodycams at the national level, 17 of the 25 regional units had started bodycam programs (Flight, 2017).

6 Police and Science is an independent research program funded by the Dutch Ministry of Justice and Security. Its aim is to build bridges between academic research and police practice. As a follow-up to the literature review of 2016-2017, Police and Science has commissioned me to evaluate two of the 32 experiments that are currently being done. The results are scheduled for publication at the end of 2018.

Table 1
Meta-evaluation bodycams

Indicator	Effect	Number of studies
Complaints against the police	decrease	5
	no effect	2
	increase	-
	(unknown	2)
Use-of-force by the police	decrease	3
	no effect	1
	increase	-
	(unknown	5)
Use of recordings as evidence	positive	2
	no effect	2
	negative	-
	(unknown	5)

searchers in Florida, for instance, concluded that police officers are supportive of body-worn cameras because they perceive a potential for the body cameras 'in improving citizen behaviour, their own behaviour, and the behaviour of their fellow officers' (Jennings, Fridell & Lynch, 2014). This finding has since been confirmed by several studies that measured officer 'buy-in' of the technology (Gaub et al., 2016). The goals police officers and their organisations hope to achieve with bodycams are often a little more down-to-earth than the ideals of politicians. Typical benefits police officers and their organisations hope to achieve with bodycams, are to cut down on paperwork and help prosecute criminals (NBC, 2007), decrease offending, increase prosecution and guilty pleas (Palmer, 2016) or to improve operational effectiveness of policing by using the recordings as evidence (Edmonton Police Services, 2015).

A final powerful driver behind the technology is the idea that body cameras are in some way 'inevitable' for any modern police organisation. This seems to have been an important reason for the former mayor of London, when he described the acquisition of 23,000 bodycams for the Metropolitan Police Service as 'a huge step forward in bringing London's police force into the 21st century' (Mayor of London, 2015). His colleague, the mayor of New York City, agreed when he announced the full rollout of body cameras to all 30,000+ police officers of the NYPD, without waiting for the results of a 12-month trial: 'This is the shape of things to come' (Southall, 2017).

Meta-analyses

Several times a year, we can find articles in the media that claim to have the answer to the million dollar question: "Do bodycams work: yes or no?" Sometimes, the answer is yes, sometimes no. Typically, the weight attached to these pieces of 'evidence' from impact assessments depends less on how thoroughly the research was done, than on how recently it was published. A meta-analysis or research synthesis is often quite helpful in such an environment because they are based only on studies that meet rigorous scientific criteria for internal validity and because they aggregate findings from several studies.

The first meta-evaluation of bodycams was published in 2014 and included all high-quality evaluations that were available at that time (White, 2014). Another meta-analysis adding another five high-quality evaluations, was published three years later (Flight, 2017). The raw material for the 2017 analysis was gathered using an internet query aimed at finding all publications in either English or Dutch that reported on the effects of bodycameras and that were based on independent academic research. This resulted in a longlist of a little under 150 publications, which were all studied and included in the literature review. Of these, 36 publica-

tions were labelled evaluations, but 18 were technical evaluations containing no information about the impact bodycams have on policing. For the remaining 18 studies, the quality of the research design was assessed and nine studies were eliminated because they were based on anecdotal evidence or on pre-post outcome measures for a treatment group (officers with bodycams) without a control group (officers with no bodycams). The nine studies that were included in the meta-evaluation were either pre-post measurements for both a control group and a treatment group (5 studies) or RCT's in which the bodycams were randomly assigned to either different groups of officers or different shifts (4 studies).[7]

The results are discussed in detail in the literature review, including some promising findings from the less rigorous studies. For the purposes of this article, I have selected three indicators that were presented in at least four of the nine studies: i) complaints against the police, ii) use-of-force by the police and iii) the use of recordings as evidence.

The number of complaints against the police decreased according to five of the nine studies. The effect size ranged from a 14% decrease to an 87% decrease. Two other studies reported that the number of complaints had not changed. The two other studies did not contain information on the number of complaints.

Use of force by the police decreased in three of the nine evaluations, with an effect size ranging from a decrease of 28% up to a decrease of 75%. One study reported no change in use of force by the police. The other five evaluations did not contain information on use of force.

Finally, the use of bodycam recordings as evidence for investigations was reported on by four of the nine evaluations: two studies reported a positive contribution, two reported there was no change in either the quality or the speed of investigations.

Yes, they work! No, they don't!

Based on the results of this meta-analysis, police forces that hope to reduce the number of complaints against police officers or to reduce the use of force by the police, would be tempted to start using bodycams. But before buying the equipment, it may be wise to take a closer look at what lies hidden beneath the aggregated results. All major reductions in the number of complaints and the use of force were found in bodycam projects in the United States; the studies that were done in the United Kingdom or Canada reported either much smaller decreases or no difference at all.

This could be a coincidence, but it could also show that there is something about policing in the United States that influences the way bodycams work; something that is not present in the United Kingdom or Canada. Furthermore, there are differences between the studies from the United States as well that might contain useful information about the factors that impact the effects bodycams have. But what type of factors should we start looking for? How can we find relevant patterns within what at first appears to be random? To help us find the right direction, we can turn back the clock one or two decades and look at another form of visual surveillance: CCTV. A systematic review of 41 evaluations from five different countries (Welsh & Farrington, 2007; Welsh & Farrington, 2009) concluded that CCTV on average reduced crime by 16 percent. But underneath that average result, some remarkable patterns were visible. First of all, there seemed to be a 'country' effect, just as with bodycams. Only this time, all the positive results came from the United Kingdom, whereas all non-UK studies, mostly from the United States, found no significant effects.[8] And there were other, more informative, ways to disaggregate the results, for instance by location. In car parks, crime went down by 51%, but in city centres, public transportation and public housing, CCTV did not decrease crime significantly. A third meaningful way to split up the aggregate results was by crime type: significant reductions were found for vehicle crime and property crime but there was no evidence of an effect of CCTV on violent crimes. In short: country, location and crime-type mattered. But how can we be certain that these are the only important

7 The cut-off point for the analysis was June 2016, which means all studies published after that date have not been included. The nine studies included were from Edmonton in Canada (Edmonton Police Services 2015), from Plymouth (Goodall 2007), Essex (Owens et al. 2014) and London (Grossmith et al. 2015) in the United Kingdom, and from Rialto (Ariel et al. 2015), Mesa (Mesa Police Department 2013 and Ready & Young 2015), Phoenix (Katz et al. 2014), and Orlando (Jennings et al. 2015) in the United States.

8 This is a summary of the text on the website of the Crime Reduction Toolkit for CCTV, published by the What Works Centre for Crime Reduction: http://whatworks.college.police.uk/toolkit/Pages/Intervention.aspx?InterventionID=1.

variables? And how should this knowledge be applied to specific crime problems in specific settings?

One way of approaching this very problem, had already been written fifteen years before the meta-analysis was published (Tilley, 1993). In this article, Tilley approached the problem from the theoretical starting point and tried to think of all the ways in which CCTV might have an impact on crime in car parks. He then went on to describe the contexts within which these mechanism could be triggered leading to measurable outcomes. He called these 'context-mechanism-outcome configurations' and concluded these would have to be described and understood if our aim is to be able to successfully transfer positive results from one CCTV-scheme to the next.

It depends

Returning to the subject of bodycams, we can see that history is starting to repeat itself. The first meta-evaluations suggest that on average bodycams 'work', but that they are more successful in some places than in others. If we limit ourselves to individual studies, we will never be able to explain why this is the case. We need to start looking at patterns across different studies from different settings. The first meta-analysis of bodycams already contained this conclusion. The author of that study wrote that even though we know from the positive results that were discovered that bodycams can have a civilizing effect, we cannot really generalise the information because the 'dynamics of police-citizen encounters are complex, and there are numerous potential explanations for the decline in citizen complaints and use of force' (White, 2014). Three years later, this has not improved. One of the most influential teams of researchers in the area of bodycams concluded: 'The evidence on [bodycams] is substantially long on evidence but rather short on theory. Why should [bodycams] 'work' and under what conditions or on whom?' (Ariel, Sutherland, Henstock, Young & Sosinski, 2017).

We have no clear idea on how the mechanisms of deterrence and increased self-awareness work, nor do we know who is influenced by the bodycam: the police officer, the citizen or both. To remain relevant to practitioners, academics should no longer ask baldly stated questions about whether bodycams do or do not work, because it depends. A more interesting question would be: 'On what?' Academics need to start aiming at making ever better informed judgments about the potential of bodycameras to fire specific mechanisms in specific contexts.

In the remainder of this article, I try to take some steps in the right direction by looking at two issues that have not received a lot of academic attention even though both are essential to unpack why different evaluations can lead to seemingly contradictory findings. The first is the visibility of the bodycam: 'Can people see it?' The second issue is the policy that regulates the use of the bodycam and the footage: 'The rules of the game'.

Can people see the bodycam?

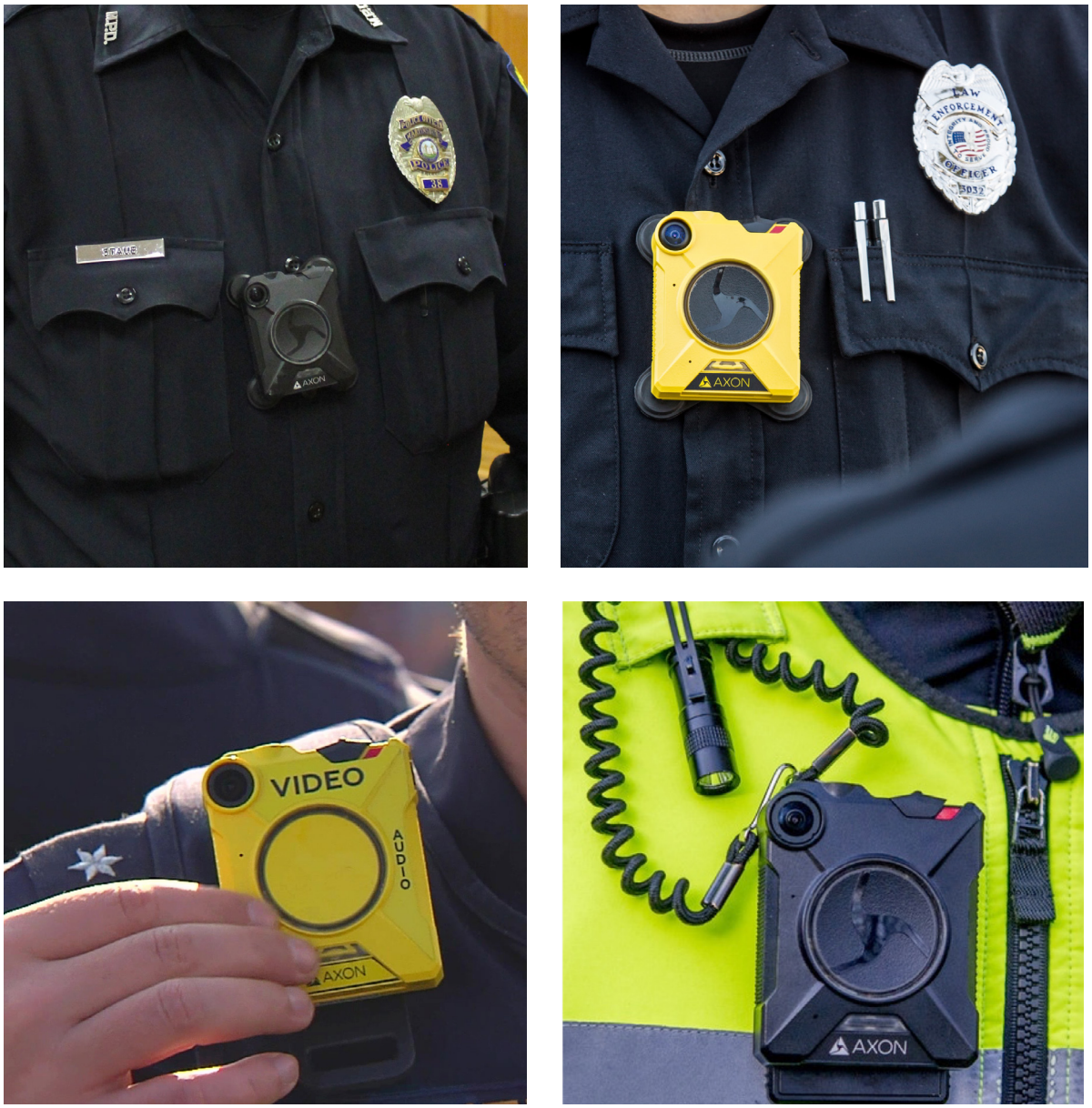
There are over fifty types of bodycams, each with their own design. Because one of the main objectives of all bodycam programs is to influence the behaviour of citizens in the desired direction, it would make sense to choose a bodycam that people can easily see. It would also make sense to include information on the visibility of the bodycam in academic publications that report on the (absence of a) civilizing effect of bodycams, yet this information is hardly ever included in reports.[9] To give an impression of the wide range in the visibility of bodycams, some examples of devices, colours, mounts and signs are shown below.

9 Some researchers have tried to find out whether it makes a difference if an officer gives a verbal warning that a recording is in progress. But the question whether different physical appearances of the device itself can lead to different outcomes has not received considerable scientific attention yet. The only exception I could find is Timan (2013) who describes the way in which the design of one type of bodycam, Zepcam, was partially based on demands from policymakers, partially on technical and practical considerations and partially on legal requirements. Timan concludes that the design that was settled on in the end, had intended and unintended consequences for both police officers and citizens. Unfortunately, no empirical studies have been done yet to measure the size of these effects.

Figure 1 – The device

Some of the early bodycams were quite literally a 'black box' which effectively rendered them invisible to citizens. In order to trigger the civilizing effect, to activate the mechanism of deterrence, or to comply with legal requirements, vendors have started to design bodycams that can be made visible by the officer using the device. One option is a red flashing light around the record-button once it has been activated (top left). Another option is to start the recording by pushing down a slide, which reveals a green circle around the camera lens (top right and bottom left). A third option is a camera lens on top of the device that can pan and tilt, combined with a small screen that displays what the camera sees (bottom right). All three bodycams are visible after activation, but the level of 'noticeability' will probably still differ considerably between these three options and between being switched on and off. But there is more than just the device that influences visibility of the bodycam.

Figure 2 – Colour of the uniform



A black box on a black uniform (top-left) is less visible than a yellow box (top-right and bottom-left). But not if the uniform itself is yellow, in which case the black bodycam is easy to see (bottom-right). The point here is not whether more visibility is necessarily better: that depends on the mechanisms the police hope to activate. The point is that in any project, the colour of the bodycam in combination with the colour of the uniform should be considered carefully, because a highly visible bodycam can become an invisible one, or vice versa.

Figure 3 – Mounting of the device

Where the bodycam is positioned on the body of the officer will impact visibility and, therefore, whether a civilizing effect can be expected or not. A body camera on the chest will probably not be noticed as easily as a camera on the shoulder or collar (top-left). The most visible bodycam is probably the one attached to a pair of glasses, because it positions the camera directly next to the eyes of the officer.[10] Other, less visible, options are available as well. Consider for instance the bodycam that is integrated with the radio microphone (bottom left), or a camera that can be hidden from view (bottom-right).

10 These choices have other important consequences as well. An advantage of attaching the camera to the head instead of the shoulder or chest, could be that the camera 'sees' what the officer sees when she turns her head. The advantage of attaching the camera to the torso of the officer is a more stable image.

Figure 4 – Signs

Research on CCTV in Cincinnati has shown that signs that inform the public of the presence of CCTV cameras, sometimes have more impact on behaviour than the actual cameras (Mazerolle, Hurley & Chamlin, 2002). There is no reason to expect this will be completely different for bodycams. This means that signs informing the public about the bodycam, either on the camera itself or on the officer, may influence behaviour more than the actual bodycam itself. Signs can be handmade (top-left) or provided by the manufacturer (top-right and middle-left). An interesting option is to place an extra sign on the police officer wearing the camera; either on the front of the officer (middle-right and bottom-left), or on the back (bottom-right). Again, there is no one design that is best for all purposes; this depends on the mechanisms that should be triggered.[11]

11 The pictures of officers with signs on their body and on the camera, are from Germany and Austria. The reason for this may not even be a conscious attempt to maximise the civilizing effect of the bodycam, but instead may be necessary to comply to the stricter legal framework regulating surveillance in these countries compared to others.

Does design matter?

We cannot assume that citizens will be aware of the fact that their interactions with police are being recorded. In a study in the United States, researchers interviewed 250 citizens who had encounters with police officers that were recorded with a bodycam. Only 29% was aware they had been recorded (White, Todak & Gaub 2017). Another survey among 400 citizens in a city in southwestern United States showed that 38% of all people who had a recent documented interaction with a police officer with a bodycam, correctly remembered there was a bodycam present. An even more striking finding was, that when the officer was *not* wearing a bodycam, 27% of citizens still said they remembered seeing a bodycam (McClure et al., 2017). This type of research is not without its methodological difficulties,[12] but the findings do suggest that a majority of these citizens did not notice if the officer they are talking with is wearing a bodycam or not. The interesting thing about the study, however, is that the authors do not describe the type of bodycam the officers were wearing. Given the fact that some bodycams are nearly invisible, it would be useful if researchers would include information on the design to enable others to compare their situation to the one that was studied.

The point here is not to find a design which is best: there may not be one single design that is best for all applications. Sometimes maximum visibility will be desirable, for instance if the aim is to deter aggressive citizens from assaulting police officers through the mechanism of deterrence. But sometimes a less visible or even a completely hidden camera could work much better, for instance in an under-cover operation or if the bodycam would escalate an already tense situation. The point is that these choices need to be considered before acquiring a specific bodycam and that these decision should not be made on the basis of technical considerations only.

12 In the second case (the n = 400 study), surveys were administered within one to two weeks of the actual interaction between community members and officers. An experimental methodology could eliminate this time-problem, by creating an artificial setting in which different images of police officers can be shown to participants, immediately followed by a questionnaire. For a recent example of this methodology to gauge perceptions of police officers with different attire or on different patrol strategies (see Simpson, 2017). An experimental setting could create its own problems, however, for instance by making the 'encounter' less stressful than an actual encounter with a police officer. This could result in an overestimation of people's ability to accurately remember information compared to actual street encounters with the police (Wells, 1978).

The rules of the game

Anyone who has witnessed the introduction of bodycams in a police force will have discovered that many police officers worry about the policy or guidelines that dictate the use of the device and the handling of the recordings. Often, these three questions are central to the debate:

- Is the use of a bodycam voluntary or mandatory?
- Who decides what has to be recorded: the individual officer or will there be rules?
- Who has access to the footage?

Deciding on these questions and documenting them in written guidelines is not a task that should be taken lightly. The Dutch National Police, for instance, has been improving the national framework for bodycams for four years before the first version was published in November 2017. The New York Police Department based their guidelines on input from thousands of citizens and police officers and went through sixteen different versions of the document before the 'BWC Operations Order Final Draft' was published.[13]

The reason these policies are so important is that they influence officer buy-in of the bodycam technology.[14] Police officers unfamiliar with the bodycams will have concerns, especially about the policy that dictates how often and in what way their supervisors can review the footage. If access is restricted to specific incidents, such as complaints, use of force or random quality checks, this concern can be alleviated (White & Coldren, 2017). But in many cases, bodycams are supposed to (also) increase accountability of the police, which could lead to policies that are the exact opposite of what police officers would choose themselves.

Guidelines have received academic attention recently. One recent study that was already mentioned above, compared use of force by police officers in nine differ-

13 The Dutch policy ('Voorlopig inzetkader Bodycams bij operationeel gebruik') can be downloaded here: https://www.politie.nl/binaries/content/assets/politie/algemeen/algemeen/inzetkader-bodycams.pdf.
The NYPD ('BWC Operations Order') can be downloaded here: https://www1.nyc.gov/assets/ccrb/downloads/pdf/investigations_pdf/oo_16_17.pdf.

14 For a discussion of officer buy-in of bodycams within three police forces in the United States, see Gaub et al., 2016.

ent sites in various countries. The conclusion was that on average bodycams had no effect on use of force by the police. But beneath this average there were different results. Use of force depended on how well officers complied with protocol. Where officers followed the protocol (turn on the camera throughout every interaction and give a verbal warning of the camera/recording that is going on), use of force decreased by nearly 40%. Where officers did not comply with protocol guidelines (they decided during the shift when they turned the cameras on or off), the use of force increased dramatically – more than 70% (Ariel, Sutherland, Henstock, Young & Sosinski 2017). So: policies make all the difference.

Another interesting thing is that the three questions mentioned above are intricately linked together. If the decision is made that use of bodycams will be mandatory and if all interactions with citizens have to be recorded ('always on'), the pressure will be on the policy-makers to prevent the recordings from being a public record. This happened for instance in the state of South Carolina where all officers had to start wearing bodycams (Williams, 2015). If, on the other hand, all recordings will be published online without redacting them first, police officers will probably not immediately embrace a policy that includes mandatory use of bodycams, or that is based on the 'always on' principle.

Just as there is no general rule that determines which design of the bodycam itself is best, there is no single policy that will work best in all settings. The political, policy and policing context is different from one police force to the next. If the reason for the bodycams is external, for instance a legal ruling or a consent decree that forces the police to start using bodycams, the police will probably prefer a policy with as much room for officer discretion as possible. If, on the other hand, the police opt to use bodycams as a proactive step to demonstrate transparency, the policy may leave less room for choice on the level of the individual officer.

A final point that needs to be stressed is that guidelines are only meaningful when introduced together with mechanisms to enforce compliance. Without a system of, for instance, random pulls of recordings and internal sanctions for officers who do not comply with the protocol, the policy will remain ineffectual.

Conclusions

Police forces around the globe will continue to invest millions in bodycams over the coming years. Yet, many of them – especially outside of the United States and the United Kingdom – are quickly discovering that bodycams are about much more than just the technology. Buying a set of body cameras and distributing them among all front-line police officers does not provide enough focus to fundamentally influence the way these officers do their job, let alone for a coordinated attempt to improve the relationships between the police and the community as a whole. Police forces that aim to emulate 'success' from elsewhere, will need to start looking beneath the surface to find out what it was that made the bodycams 'work'. We need to understand *how* and *where* and *for whom* they work.

In this article, two aspects of any bodycam program that are very influential are discussed: the visibility of the bodycam and the policies that regulate the use of the device and of the recordings. These issues have not received a lot of systematic academic attention yet. Practitioners that look to science in the hope of receiving useful information can feel overwhelmed by the number of variables that have to be considered. This article adds another two items to their desktop that was probably already overflowing with 'evidence' and 'lessons learned'. But if the number of high-quality empirical studies keeps increasing and academics start paying more and more attention to mechanisms, contexts and implementation issues, we may end up with a relatively small number of variables that are the most relevant. Furthermore, academics need to broaden their view to include not only validity of the findings within a specific context, but to include more descriptive methodologies and theoretical explorations. This will be the only way in which we will be able to make sense as the number of superficially contradictory findings will inevitably increase. This task can only be achieved by increasing the number of projects where academics and practitioners collaborate.

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