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## **EFFECTIVENESS OF THE USE OF BODY-WORN CAMERAS BY POLICE OFFICERS: THEORETICAL GROUNDS**

**ABSTRACT:** In the 2010s, law enforcement agencies in the U.S.A and Europe began to equip police officers with miniature cameras that can be placed on their bodies, i.e. on their uniforms. These cameras were introduced with the belief that their use will solve or reduce certain problems and improve relations with citizens. Body-worn cameras are supposed to have a preventive effect on police officers and citizens alike, deter them from illegal and socially undesirable actions. This paper argues that the positive impact of bodycams can be explained by the self-awareness and deterrence theory. The paper also presents the results of a study on the positive impact of bodycams on police officers and citizens.

**KEYWORDS:** bodycams, law enforcement, self-awareness, deterrence, theories

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## 1. Introductory Remarks

Ever since their establishment, law enforcement agencies have had to cope with various problems and challenges, such as new forms and sources of security threats, increased crime rates, threats to the security of police officers, unsatisfactory relations between the police and the community, etc. To resolve these problems, law enforcement agencies have implemented numerous prevention programs and projects, introduced new methods and resources, and other measures and actions. Certain activities, programs and projects, despite the effort and resources invested, did not produce the expected results.

In the 2010s, law enforcement agencies were faced with both new and unresolved old problems that affected their work. One of the proposed solutions was to introduce body cameras worn by police officers. These police body cameras (hereinafter: bodycams) were seen as a means to solve specific and/or major challenges in the state police system.<sup>3</sup>

The first mass implementation of cameras was in the U.S. law enforcement agencies after 2014. This decision was prompted by civil unrest and protests following the killing of an unarmed Black teenager Michael Brown and long-term police violence against black citizens. At the time, bodycams were proclaimed as the only solution to calm the civil unrest, prevent violence by police officers against black citizens, unprofessional behavior and treatment of other citizens, and the use of unfounded and excessive coercion (Peterson & Lawrence, 2019; Braga et al., 2018; Nowacki & Willits, 2018). Law enforcement agencies in Europe, however, have implemented bodycams because acts of violence by citizens against police officers were on the rise (Lehmann, 2020; Hansen & Backman, 2021; Meyer, 2020). On September 1, 2023, the Serbian Police began implementing the pilot project for the use of bodycams. The pilot project is implemented in two organizational units of the traffic police with the aim of documenting and controlling the work of police officers,

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<sup>3</sup> In the U.S. and European literature, the terms “cameras worn on the body of police officers” or “body cameras” are used for miniature cameras placed on the uniform or part of the equipment of police officers. As a rule, miniature cameras are not pinned directly on the torso, but on a piece of uniform or equipment.

improvements in law enforcement and work performance, determining the validity of citizens' complaints, prevention of abuse and corruption, and improvement of police work and training. The results of this project should serve as a basis for evaluating the effects of the use of bodycams and making a decision on the implementation of bodycams in the Serbian police<sup>4</sup>.

Law enforcement agencies made the decision to implement bodycams assuming that recording interactions between police officers and citizens will have a positive impact on their behavior and actions. Bodycams were expected to have a preventive effect, i.e., to deter both police officers and citizens from illegal and socially undesirable actions and behavior (Lum et al., 2020)<sup>5</sup>.

Bodycams would thus contribute to the civilizing effect<sup>6</sup>, i.e., achieving a positive impact on the interactions between police officers and citizens (Katz, et al., 2015). The civilizing effect<sup>6</sup> of bodycams can be explained by two theories - the theory of self-awareness and the theory of deterrence. Both theories suggest that police officers and citizens pay attention to their behavior when they know their interactions are being recorded (Peterson & Lawrence, 2019; Lum, et al., 2020; Adams & Mastracci, 2019; Stoughton, 2018; Katz, et al. al., 2015). In the following sections, we will discuss the reasons for their effectiveness in achieving a preventive effect on police officers and citizens.

## 2. The Self-Awareness Theory and Its Grounds

Psychologists argue that people change their attitudes and behavior when they think others are watching them (Morin, 2011). When people become aware that their behavior or actions are being watched in public, the process of self-awareness begins. Self-awareness refers to the process of focusing attention on oneself or the ability to become the

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<sup>4</sup> In Serbia, bodycams are mostly worn by police officers who perform police duties and exert police authority.

<sup>5</sup> Due to their expected effects, bodycams became the most rapidly adopted technological advancement in modern police history (Lum et al., 2020).

object of one's own attention. One becomes self-aware when one reflects on the perceptual experience and processing of stimuli (Morin, 2011).

During the 1970s, Charles Carver conducted several experiments designed to test the role of self-awareness in reducing aggression. The participants were organized in pairs, each pair consisting of two participants. The first participant posed questions to the second participant. When the second participant did not know the answer to the question, the first participant would punish him or her with an electric shock. The first participant could determine the strength of the electric shock on a scale from one to ten. Carver found that the participants in the room with the mirror administered lower-intensity electric shocks than participants in the room without the mirror. Based on these experiments, Carver concluded that the mirror increased self-awareness, which in turn decreased aggression (Stoughton, 2018). When people become aware that they are being watched, they then adjust their attitudes and behavior in accordance with acceptable social behavior or socially desirable reactions (Sproull et al., 1996; Paulhus, 1988).

The results of some studies confirm that increased self-awareness leads to socially desirable behavior because individuals react in socially desirable ways to even the smallest sign that may indicate that they are being watched (Boyd, Gintis & Bowles, 2010; Burnham & Johnson, 2005; Haley & Fessler, 2005). Therefore, self-awareness increases the need to behave according to the rules. Knowing that a person's behavior is being observed affects their cognitive processes that influence behavior and actions to be in accordance with regulations and socially desirable and acceptable norms (Ariel, Farrar, & Sutherland, 2015).

Police bodycams have the role of a third-party observer in the event. They act as a stimulus that triggers self-awareness among police officers and citizens to adhere to the rules and regulations on socially desirable behavior (Ariel, 2016). The presence of a third party in our physical world modifies our perception, motivation, and ultimately behavior. In addition to positive changes in the behavior of police officers, bodycams can also have a negative impact on the behavior and actions of these officers.

The use of bodycams and informing citizens at the beginning of the interaction that the event is being recorded can have the effect of increasing their self-awareness. Increased self-awareness positively influences citizens to act according to the requests of police officers and not to offer any resistance because there is recorded evidence. On the other hand, increased self-awareness influences the police officer to adhere to the prescribed rules and standards of behavior in his behavior and actions.

The self-awareness effect of police officers depends on whether bodycams are activated. If police officers decide not to turn them on, the effect of self-awareness will be lost, and thus professional and legitimate actions on the part of the police may not be in evidence (Hedberg et al., 2017; Taylor, 2016). The effect of self-awareness among citizens, however, arises depending on whether they noticed the bodycams or were warned at the beginning of the encounter that their interaction was being recorded.<sup>6</sup>

When police officers and citizens are aware that their behavior and interactions are being recorded, then they adhere to the rules of conduct and behavior. The existence of the video recording is proof of their responsibility. Thus, both parties in the interaction are aware not only of the fact that they are being observed, but also of the possible consequences, which is why they behave or act in accordance with valid regulations and social norms (Ariel, Farrar, & Sutherland, 2015; Surette, 2005).

The theory of self-awareness states that knowledge of recorded behavior influences an individual to focus their attention on themselves, evaluate and align their behavior with acceptable social norms, rules and laws (Duval & Wicklund, 1972). The basic premises of this theory are applicable to police officers and citizens - participants in the event recorded by the bodycams. When bodycams are present, police officers and citizens believe that their behavior will be punishable by law if they

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<sup>6</sup> Preliminary studies have indicated that community members usually do not notice bodycams on police officers. This was particularly pronounced in the initial stages of the camera implementation project. For example, in one study, only 28% of surveyed community members remembered that the police officer had a body cam within a month of interacting with the police. See more: White, Todak, & Gaub, 2017.

do not act in accordance with social norms and operational procedures of the police organization (Peterson & Lawrence, 2019).

### 3. The Deterrence Theory and Its Grounds

The origins of most modern theories of deterrence may be found in the works of law philosophers of the Enlightenment Era. Beccaria & Bentham argued that deterrence consists of three key elements: severity, certainty, and speed of punishment. These elements, especially the certainty and speed of punishment, form the basis of almost all modern deterrence theories. The certainty of punishment is the product of a series of conditional probabilities: probability of arrest and of being charged for the crime committed, probability of conviction for the criminal charge, and probability of various formal sanctions for the conviction. The deterrent effect of the certainty of punishment depends exclusively on the certainty of arrest. According to Nagin, the certainty of apprehension/arrest relative to the severity of the consequences is a more effective deterrent. The general deterrence hypothesis states that a reduction in criminal activity is influenced by an increase in the severity, certainty, and speed of punishment (Nagin, Solow, & Lum, 2015).

The results of research in the field of human behavior show that socially and morally unacceptable actions are less likely when the fear of a criminal offense is high and when the severity of the punishment is significant. This is especially true for acts related to criminal offence and disorderly conduct, as the consequences of being apprehended for such behavior are perceived as severe and people simply want to avoid being caught (Nagin, 2013; Ariel, Farrar, & Sutherland, 2015). Punishment is presumed to deter future crime to the extent that it is certain, swift, and severe enough to outweigh the benefit derived from perpetrating the crime. Certainty refers to the likelihood or risk of detection of a crime and subsequent punishment. Speed refers to how quickly a sanction is applied after an offense is detected. Severity refers to the harshness and degree of punishment (Piquero et al., 2011).

According to deterrence theory, crime is reduced when a potential offender believes that the cost of committing a crime is greater than its benefits (Peterson & Lawrence, 2019). Deterrence theory predicts that people will follow rules and adopt socially acceptable behaviors when they think they are being watched (Nagin, 2013). This theory presumes the existence of rational thinking and awareness. Therefore, persons under the influence of alcohol or psychoactive substances are unlikely to respond to messages of deterrence, the threat of arrest, or threat of sanctions for behavior caught on camera. Deterrence requires rationality. When people are in an intoxicated state, their judgment is often reduced, and it is unlikely that cameras will play a deterrent role (Ariel, 2016).

Cameras can have a deterrent effect if they are activated, because then the certainty of fear of possible consequences increases. Body cameras affect police officers and citizens; they adjust their behavior and actions in an effort to avoid any sanctions (Ariel, Farrar, & Sutherland, 2015).

Deterrence works equally on persons who would otherwise decide to commit a crime and on police officers who would otherwise violate the rules of conduct. Bodycams perform a preventive function for both police officers and citizens. In cases where police officers and citizens are aware of the existence of bodycams, they follow the rules because otherwise there is a likelihood of arrest and sanctions. Both participants in the event become aware not only of being observed, but also of the fact of possible consequences due to non-compliance with rules and regulations (Ariel, 2016). Bodycams can only deter inappropriate or unprofessional behavior and actions by police officers and citizens only if police officers are warned against misusing or not using bodycams (Stoughton, 2018). A deterrent effect on citizens can be achieved when they notice body cameras on police officers and believe that their interactions with police officers are being recorded. Otherwise, bodycams will not produce a deterrent effect on citizens, because they will not be aware that the interaction is being recorded (Farrar & Ariel, 2013).

Deterrence theory seeks to explain how the threat of sanctions and the imposition of sanctions prevent crime in a community. It is assumed that sanctions will deter future crime if the punishment is certain, swift, and severe enough to outweigh the benefit obtained from committing

the crime. Deterrence theory states that opportunities for crime are reduced when a potential offender believes that the cost of committing a crime is greater than the benefits (Gibbs, 1975; Zimring & Hawkins, 1973). Police officers and community members may perceive the likelihood of arrest and swift punishment to increase because of body camera evidence, causing them to change their behavior to avoid or minimize possible punishment (Peterson & Lawrence, 2019).

#### 4. **Bodycam Effects**

After the period of implementation of cameras in US law enforcement agencies, many studies were done to assess the achieved effects and impact of bodycams on police officers, law enforcement, citizens and the community. The largest number of empirical studies examined the effects of bodycams on the use of coercion by police officers, and complaints submitted by citizens. These effects were analyzed using statistics.

The studies indicated that the number of complaints submitted was reduced: a 23% reduction in complaints due to the use of bodycams was reported in Phoenix, Arizona (Katz et al., 2014), 87.5% reduction in Rialto, California (Ariel, Farrar, & Sutherland, 2015), 65% in Orlando, Florida (Jennings, Lynch, & Fridell, 2015) and 1.5% in the Isle of Wight, United Kingdom (Ellis, Jenkins, & Smith, 2015).

The first evaluation of the effects of the cameras was done in 2012 at the Rialto Police Department (CA), in collaboration with the University of Cambridge. This study compared two groups of police officers: one group used bodycams and the other did not. The number of complaints decreased by 87.5%: before bodycams were implemented, there were 24 complaints, and after the implementation, only three complaints were submitted. One complaint was filed against police officers with bodycams and two complaints were filed against police officers without bodycams (Ariel, Farrar, & Sutherland, 2015).

Milwaukee Police Dept. participated in a study from October 2015 to December 2016, which revealed that the number of complaints decreased by about 50% (Peterson et al., 2018).



Hedberg et al. conducted a study in two police stations in Phoenix. Police officers were also divided into two groups. Data from around 44,000 events were used for the purpose of the research. It was concluded that the use of cameras reduced complaints by about 62% (Hedberg, Katz, & Choate, 2017).

A major survey on the effects of bodycams was carried out in London from May 2014 to April 2015. 814 police officers who used bodycams and 1,246 police officers who did not participated in this research. The results of this research indicated that police officers without bodycams were 2.55 times more likely to have a complaint filed against them, compared to police officers with bodycams (Owens & Finn, 2018).

The research also showed a decrease in coercion, e.g., the Rialto Police Department noted that coercion decreased by about 50% among police officers who used bodycams (Ariel, Farrar, & Sutherland, 2015).

A random survey of 416 police officers was conducted in the Las Vegas Police Department. In this research, there was 12.5% less coercion in the experimental group compared to the control group (Braga et al., 2018)<sup>7</sup>. In the Orlando (Florida) police department, there was 8.4% less coercion in the experimental group compared to 3.4% in the control group (Jennings et al., 2017). Contrary to these studies are the results of a random survey from the Washington Police Department and a survey from the Milwaukee Police Department. 2,224 police officers participated in the research conducted in the Washington Police Department and 504 police officers in the Milwaukee Police Department. The results of these studies did not indicate a reduction in the use of coercion among police officers who used bodycams (Yokum, Ravishankar, & Coppock, 2019; Peterson, et al., 2018). A study carried out in Spokane, Washington, showed that police officers who were randomly selected to use body cameras used coercion less frequently over a five-month period (from 0.91 to 0.84 events per month). After the research was completed, an increase in the use of coercion was noted over a period of five months (from 0.84 to 1.18 events per month) (Peterson & Lawrence, 2019).

During ten months in 2013, a study was conducted in Mesa (Arizona), in which the behavior of 100 police officers with bodycams was

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<sup>7</sup> The experimental group used bodycams, the control group did not.

monitored. An analysis of 3,700 reports made by these police officers was carried out. The analysis revealed changes in the behavior of police officers that influenced the decrease in coercion (Ready & Young, 2015).

The results of the presented studies showed the positive impact of bodycams on the use of coercion and the number of complaints filed. This is due to changed behavior and actions of police officers and citizens. Police officers and citizens, under the influence of self-awareness, correct their behavior and actions when they know that their interactions are being recorded.

## 5. Conclusion

The use of bodycams is an attempt by law enforcement agencies to solve their specific challenges and improve relations with citizens in the community. By using bodycams, law enforcement agencies have been trying to exert a preventive influence on citizens and police officers to refrain from illegal, socially negative behavior and actions.

Body worn police cameras document the actions of police officers during interactions with the community. The knowledge that the interaction of police officers and citizens is being recorded affects their awareness, motivating them to harmonize their actions with legal regulations and acceptable social norms in order to avoid consequences.

The effects of bodycams have been examined in numerous studies conducted in the USA, which show that police officers used coercion less and that fewer complaints were filed against them. The theory of self-awareness and the theory of deterrence have thus been proven by empirical evidence.

The Serbian Police has been implementing a pilot project for the use of bodycams in two traffic police units for several months. The effects of their use should be useful to the Ministry of Interior in deciding whether to implement bodycams.

Regardless of the achieved effects in the work of the police, bodycams must not become the main tool in solving the problems of the police organization. Training and education should be the drivers of

change among police officers and lead to more professionalism. Body-cams would then have a secondary role and contribute to a lesser extent to effective police work.

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