

When the Watchers Become the Watched
A Qualitative Inquiry into Police Officer Perceptions of Body-Worn Cameras

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Abstract

Recently, police legitimacy has come under attack due to ongoing allegations of police use of excessive force. In line with national efforts to modernize police services, body-worn cameras have been positioned as a promising response to reconstructing police legitimacy due to their potential to provide greater transparency and accountability (Brucato, 2015). Despite the rapid and extensive adoption of body-worn cameras by North American police services (Brucato, 2015), there is a great deal of uncertainty regarding effective policy, implementation and expected outcomes. As it stands, the current research that examines the impact of body-worn cameras on citizen complaints and police use of force presents a narrow understanding of their use. Existing research calls for future studies to examine officer perceptions of body-worn cameras in order to gain a more comprehensive understanding of their value and impact (Boyd, Mateescu & Rosenblat, 2015). As such, the primary research objective of this study is to understand how police officers perceive the use of body-worn cameras. Semi-structured interviews were conducted with police officers from the Toronto Police Service. By drawing on Orlikowski and Gash's (1994) technological frames of reference framework, the study concludes that officers felt that both of the BWC models during the pilot project were inadequate, were skeptical about the potential of BWCs due to the belief that BWCs are a tool primarily used to "keep an eye on the police", believed that BWCs impact officer and citizen conduct in ways that can potentially harm police-community relationships, and reported using BWCs to gain greater control over police visibility. Recommendations for training and body-worn camera program development are presented at the end of the study, along with directions for future research

Chapter 1: Introduction

1.1 Significance of the Present Study

Over the past few years, several incidents involving police use of excessive force against young unarmed racialized men have dominated mass media, consequently renewing public demand for immediate police reform (Williams, 2014). Some of these include the death of Sammy Yatim, an 18-year-old high school student who was shot nine times on a city streetcar by a Toronto police officer in July, 2013 (Kari, 2015). A year later in Ferguson, Missouri, tensions rose when Michael Brown, a black unarmed teenager died as a result of being shot by a police officer (Williams, 2014). In the following year, Freddie Gray, a young African American from Baltimore died as a result of spinal injuries while in police custody (Rector, 2016). Public reaction to the fatal shootings and in-custody deaths of mainly young, racialized males was highly-tense and emotionally charged. It quickly uncovered the problematic state of police-citizen relations that appeared to be characterized by public mistrust and eroding police legitimacy.

In response, police services across North America began adopting body-worn cameras (BWCs) in hopes of improving police-community relationships and restoring public trust in police (White, 2014). BWCs, also commonly referred to as "wearable video devices" or "on-officer video cameras", are mobile audio and video devices that enable police officers to record police-citizen interactions from the officer's point of view (Boyd et al., 2015). For police services and some members of the public, BWCs have the potential to enhance police transparency and accountability due to their perceived potential to provide objective accounts of police-citizen interactions (White, 2014). Currently, 96 percent of police forces in the United States have tested or are currently using BWCs (Fifth Estate, 2016). In Canada, the use of BWCs is far more uncommon due to feasibility and sustainability concerns relating to cost (Fifth Estate, 2016). The

Amherstburg Police Service in Ontario became the first and only police service in Canada to equip frontline officers with BWCs in 2016 (CBC News, 2016). Prior to and since then, several police services have piloted BWCs including: Victoria (2010), Calgary (Tucker, 2017), Edmonton (2015), the Royal Canadian Mounted Police (2015), and Montreal (CBC News, 2016); or are currently planning to pilot BWCs including: Ottawa, (CBC News, 2016), Durham (2017), and Fredericton (Pruss, 2017).

Until recently, research on BWCs was very limited. Indeed, when I began researching BWCs in September 2015, there were only a handful of studies that evaluated the outcomes of BWCs and even fewer that examined public and officer perceptions of BWCs. In light of their ongoing popularity amongst North American police agencies (Brucato, 2015), however, a growing number of studies have attempted to address the questions that remain about the effectiveness of BWCs. In particular, much of the research has focused on evaluating the impact of BWCs on officer use of force and citizen complaints against police officers (Ariel, Farrar & Sutherland, 2015; Ariel, 2016; Ariel, Drover, Henderson, Henstock, Megicks, Sutherland, Sykes & Young, 2017; Owens, Mann & McKenna, 2014). A considerable amount of research has also attempted to examine officer perceptions of BWCs in relation to their perceived conditions and consequences and overall level of support (Ariel 2016; Edmonton Police Service, 2015; Janne, Choate, Todak, Katz & White, 2016; Jennings, Fridell & Lynch, 2014; Katz & Kurtenbach, 2014; Miller, Toliver & Forum, P. E. R., 2014; Pelfrey Jr & Keener, 2016; Smykla, Crow, Crichlow & Snyder, 2016; Toronto Police Service, 2016).

While perception studies have been effective in identifying officers' views on the perceived conditions and consequences associated with the use of BWCs as well as their level of support, they fall short in explaining how officers arrive at their perceptions and how this impacts their use of BWCs. I suggest that this limitation is largely due to the fact that existing studies do

not use theoretical frameworks to inform their methodology or analysis. By neglecting the use of broader criminological and sociological theoretical frameworks, the existing studies have failed to consider the sense-making process used by officers to construct their assumptions, expectations and knowledge about BWCs. Consequently, this has led to an incomplete understanding of officer views and use of BWCs. Therefore, the present study seeks to develop a theoretical account of how officers construct their perceptions of BWCs and how this impacts the resulting use of this technology. Specifically, the present study engages Orlikowski and Gash's (1994) technological frames of reference framework to examine how officers develop particular assumptions, expectations and knowledge about BWCs. The Toronto Police Service in Ontario, Canada is used as a case study to understand officer perceptions of BWCs.

According to Orlikowski and Gash (1994), when people interpret and interact with technology they consider a technology's capabilities and functions, the motivations of their organization to adopt a particular technology and the conditions and consequences associated with its use. To date, only three studies have examined officer perceptions of the capabilities and functions of BWCs (Edmonton Police Service, 2015; Janne et al., 2016, Toronto Police Service, 2016). In both studies, officers reported dissatisfaction with insufficient battery life, docking stations, mounting, ability to mute, categorizing videos on the road and uploading videos. While the studies have shown how officers perceive the functionality of the cameras, the number of studies is very limited and therefore our understanding of how officers perceive the utility of BWCs is incomplete. As such, the present study seeks to uncover how officers perceive the capabilities and functionality of BWCs; specifically in accordance to the technological frames of reference framework to understand how officers arrived at their perceptions.

Interestingly, only a single study conducted by Smykla and colleagues (2016) uncovered findings that provide insight on how officers perceive the motivations that led to their

organization's decision to adopt BWCs. The study found that officers largely believed that media pressure played a large role in the decision to adopt BWCs (Smykla, 2016). While this particular finding is interesting, it is not analyzed in a way that would provide insight on the impact this might have on officer use of BWCs. Indeed, this is the most underdeveloped area in our understanding of how officers perceive BWCs due to the limited amount of research. Therefore, the present study seeks to uncover how officers perceive the motivations that influenced their organization's decision to adopt BWCs.

All of the existing perception studies have examined officer views on the conditions and consequences associated with the use of BWCs (Ariel 2016; Edmonton Police Service, 2015; Janne et al., 2016; Jennings et al., 2014; Katz & Kurtenbach, 2014; Miller et al., 2014; Pelfrey Jr & Keener, 2016; Smykla, 2016; Toronto Police Service, 2016). The studies show that officers reported a number of benefits associated with the use of BWCs including: increased professionalism (Edmonton Police Service, 2015; Toronto Police Service, 2016), the potential to protect officers from false complaints (Edmonton Police Service, 2015; Toronto Police Service, 2016) and the potential to improve quality of evidence (Katz & Kurtenbach, 2014). Officers also reported various consequences including: the potential to be used as a mechanism of control (Ariel, 2016); limits officer discretion (Ariel, 2016; Edmonton Police Service, 2015; Toronto Police Service, 2016), and little to no impact on officer safety (Jennings et al., 2014; Toronto Police Service, 2016).

While the studies have demonstrated that officers perceive a variety of conditions and consequences associated with the use of BWCs, the responses they elicited from officers are problematic. Existing studies have predominantly used surveys to understand officer perceptions of BWCs. Consequently, officer perceptions are limited to pre-determined responses that are developed by survey administrators and not officers themselves. Further, studies that use

interviews in addition to surveys typically do not ask questions that reach beyond situational and technical matters, thereby limiting our understanding of the social significance of BWCs. To better understand how officers perceive the conditions and consequences associated with the use of BWCs, the present study uses semi-structured interviews to provide officers with the opportunity to discuss areas beyond technical and situational matters; thereby enhancing our understanding of the social significance of BWCs.

By addressing the aforementioned research objectives, the present study seeks to contribute to our understanding of the effectiveness of BWCs and enhance our existing knowledge of the technological frames of reference framework. As such, the present study is academically significant in the sense that it attempts to enhance our understanding of the sense-making process that officers use to construct assumptions, expectations and knowledge about BWCs and how this impacts their use of BWCs. It is also practically significant in the sense that it uncovers how officers perceive the capabilities and functionality of BWCs, the motivations that led to their adoption, and the conditions and consequences associated with their use. Further, the present study will contextualize officer perceptions in broader social issues including police-community relationships and surveillance to understand the social significance of BWCs and the resulting practical implications. The present study does not propose to provide a conclusive statement on whether the Toronto Police Service should proceed with adopting BWCs; rather it intends to highlight how officers arrive at their perceptions of BWCs and how this impacts their resulting use. In turn, the present study provides recommendations that can be used to support policy, training and implementation of BWCs in the Toronto Police Service. It can also be used to inform future research on officer perceptions of BWCs.

1.2 Overview

The next chapter (Chapter 2) begins by introducing the context from which BWCs

emerged. Then, the existing literature on the impact of BWCs as well as public and police perceptions of their use and value are examined. Then, I discuss the considerations and consequences of BWCs as well as the Toronto Police Service pilot project on BWCs. Chapter 2 also discusses the technological frames of reference (TFR) framework (Orlikowski & Gash, 1994) engaged in the present study to better understand police officer perceptions of BWCs. An explanation is provided on the development of the TFR framework before discussing its key tenants as well as the benefits and limitations associated with its theoretical and practical application.

Chapter 3 discusses the methods used to understand officer perceptions of BWCs in the Toronto Police Service. First, an explanation for why these methods were chosen is provided followed by a discussion on the strengths and limitations associated with the use of these methods. The data collection and analysis processes are then presented followed by a discussion on the ethical considerations that were recognized prior to the commencement of the study.

Chapter 4 present the findings in relation to officer's perceptions of BWCs. The findings are presented in accordance to the study's research objectives that are informed by the technological frames of reference framework. As such, the findings are organized in accordance to officer's perceptions of the capabilities and functionality of BWCs, the motivations that led to their adoption, and the consequences and condition associated with their use.

Chapter 5 analyzes the study's findings in accordance to the technological frames of reference framework. Specifically, an analysis on the officer's sense-making process is provided followed by an assessment of frame congruence. The findings are then analyzed in broader social issues including police-community relationships and surveillance. Chapter 6 reviews the scholarly and practical significance of the study before providing recommendations for future policy, training and implementation. The chapter concludes by discussing the strengths and

limitations of the present study and provides recommendations for future research.

Chapter 2: A natural progression?: A Literary Review of Body-Worn Cameras

In this chapter, I begin by introducing the context from which BWCs emerged; namely towards the goal of reconstructing police legitimacy. Then, I review the existing literature on the impact of BWCs as well as public and police perceptions of their use and value. Then, I discuss the considerations and consequences associated with the development and use of BWCs followed by a detailed explanation of the Toronto Police Service pilot project on BWCs. From there, I discuss the technological frames of reference (TFR) framework (Orlikowski & Gash, 1994) used in the present study to understand officer perceptions of BWCs. Specifically, I explain how the use of the TFR framework fosters a more nuanced approach to understanding officer perceptions followed by a discussion on the social cognitive research that informed its development. Finally, I provide a detailed explanation of the basic tenants of the TFR framework as well as the benefits and limitations associated with its theoretical and practical application.

2.1. The Construction, Deconstruction and Reconstruction of Police Legitimacy

According to Weber (1958, 2009) police forces in Western democratic nations derive their legitimacy through “legal authority”; a concept used to describe a system that presents police officers with predetermined principles and practices that are used to inform their decisions. These processes are informed by rules, regulations and laws instead of an officer’s own will, thereby providing a systematic approach to police operations. While police still derive their legitimacy through “legal authority”, research suggests that historically, socio-political factors have also played a significant role in shaping police legitimacy. In particular, Robert Reiner (2010) highlights various social political factors to explain the three stages of police legitimacy; namely the construction of police legitimacy from 1856-1959, the deconstruction of police legitimacy from 1959-1992 and lastly, the reconstruction of police legitimacy from 1992

onwards. I begin by explaining each phase and then examine the current state of police legitimacy. I will note that while Reiner's analysis focuses on police legitimacy in Britain, the patterns and causes he identifies are nevertheless relevant and applicable to the Canadian context. Given the underdeveloped and limited research on the history of police legitimacy in Canada, Reiner's analysis will inform the first two stages of police legitimacy. Research pertaining to the socio-political factors that shape police legitimacy in North America will appear in the final stage.

The establishment of the British police in the early 19th century faced considerable opposition from a range of actors, each one possessing and seeking to advance various political interests and philosophies (Reiner, 2010). Middle and upper-class suspicions challenged police legitimacy while the working class' resentment of government authority only further undermined it (Reiner, 2010). Indeed, the initial construction of police legitimacy was problematic. However, by the 1950s the police were considered a symbol of national pride (Reiner, 2010) and received an overwhelming vote of confidence from many segments of society (Reiner, 2010). According to Reiner (2010), police officers enjoyed approval from the majority of the population and carried out their operations as legitimate authority figures as opposed to "politically controversial bearers of power" (Reiner, 2010, pp. 70). As far as public acceptance of police is concerned, this time period is considered a "golden age" for police legitimacy (Reiner, 2010).

From 1959-1992, British police legitimacy became highly contested and undermined as 'law and order' became deeply politicized (Reiner, 2010). It is around this time that policing began to experience controversy and scandal. For example, in 1957, accusations of corruption were brought against the chief constables of Cardiganshire, Brighton and Worcester. That same year, an officer was accused of using excessive force against a boy who was beaten in Thurso (Reiner, 2010). Then in 1959, the chief constable of Nottingham refused to investigate a stream

of criminal accusations involving councillors (Reiner, 2010). After 1955, recorded crime rates also began to rise inexorably each year leading the public to fear for their safety and security (Reiner, 2010). Other contributing factors included (1) ongoing corruption scandals, (3) tougher tactics, equipment and legal powers for police, (4) and deeply politicized intentions and agendas (Reiner, 2010). Soon after, public polls began to indicate a stark drop in public acceptance of the police (Reiner, 2010). In Canada, policing also experienced a great deal of controversy and scandal during this period. For example, the Keable inquiry report released in 1981 on alleged police misconduct in Quebec during the early 1970s describes how officers used highly controversial counter-terrorist tactics against the Parti Quebecois (PQ) as well as and left-wing organizations and individuals (Brodeur, 2011). These tactics ranged from theft of documents and detention of individuals from a prisoner human rights group, planning and delivering false communique, and executing a police raid on a left-wing news agency (Brodeur, 2011). Consequently, the police image transformed from what was once a depoliticized, legitimate authority figure to a distrusted and suspicious organization of government power (Reiner, 2010).

The reconstruction of police legitimacy from 1992-onwards is characterized by its shift into a new stage which Reiner (2010) identifies as "post-legitimacy". While not fully recovering from the negative status they acquired in the latter half of the twentieth century, the police received fewer complaints regarding political conflict and popular suspicion but more complaints regarding their efforts to achieve their mission of crime control (Reiner, 2010). While incidences of use of force and corruption remained, police legitimacy was threatened by the failure of the police to deliver "protection from crime in an equitable and efficient way" (Reiner, 2010, pp. 96). Therefore, policing became perceived as a necessary evil, but one that must achieve its duty in fulfilling the "tough" law and order approach (Reiner, 2010).

As North American police services continue to operate in the "post-legitimacy" stage,

recent media reports have claimed that police-community relations are now at an all-time low (Nix, 2016); however sociologists and criminologists argue that police legitimacy is cyclical, experiencing periodic crises of legitimacy triggered by controversies relating to police use of force, race and gender discrimination, as well as widening political and economic divides (Reiner, 2010). Specifically, recent research in North America suggests that police legitimacy is largely shaped by how people perceive police treatment of citizens (Tyler and Huo, 2002; Tyler, 2004; Tyler, 2009). In Canada, racially-targeted police stop and search practices have led to negative public perceptions of police legitimacy, especially amongst racialized communities (Wortley & Owusu-Bempah, 2011). Armaline, Vera Sanches and Correia (2014) reported similar findings after interviewing residents in Oakland, California on their perceptions and experiences with the Oakland Police Department. They found that residents perceived police as perpetrators of racial and economic segregation and as an “organized (“gang”) threat” to the safety of racialized individuals (Armaline et al., 2014, pp. 393). Gau and Brunson (2010) suggest that proactive policing measures may also negatively impact public perceptions of police legitimacy. They suggest that the types of offences that are targeted in frequent police stops are often minor and ill-defined. Consequently, citizens may view particular police activities as a form of “harassment” if they do not agree with or understand why they are being stopped (Gau & Brunson, 2010).

2.2 Police Legitimacy: Where Are We Now?

Current discourse surrounding police legitimacy in North America continues to be grounded in accusations of race discrimination and more recently, police use of excessive force (Williams, 2014). Police are often required to use reasonable and necessary force in a variety of highly unpredictable and disorderly situations in an effort to “compel compliance from an unwilling subject” (International Association of Chiefs of Police, 2001, pp. 1). The procedural

laws guiding police use of force are theoretically rooted in historical and contemporary ideas that claim there is a social contract between police institutions and the citizens they serve and protect, an idea dating back to Hobbes (1651), Locke (1689), Rousseau (1762) and more recently Pettit (1997) and Shapiro (2003). This line of theorization argues that in exchange for the safeguarding of social security and safety, citizens expect police to use force when the situation requires the use of "reasonable power necessary to achieve legitimate purposes" (Alpert & Smith, 1994). Therefore, police are entrusted with legal responsibility to maintain social order through their legitimized reasonable use of force. While research has not produced universally accepted definitions of "reasonable" and "necessary" use of force (Ariel et al., 2015), it has been more successful in identifying two distinct situations viewed as undesirable. These include: (1) "use of excessive force" which is when an officer uses force beyond what is reasonably believed to be necessary in a situation where some force was justifiable, and (2) "unnecessary use of force" which is when an officer uses force but no force was reasonable/necessary in the context (Ariel et al., 2015). These situations are argued to delegitimize police institutions, increase public mistrust and damage community relationships (Worden, 1996).

Over the past few years, several incidences involving police use of excessive force against young unarmed black men have dominated mass media, sparking protests and demands for change across the United States and Canada (Williams, 2014). Some of these include the death of Eric Garner, an African American who died after being placed in an apparent "chokehold" during the course of his arrest on July 17, 2014 in Staten Island, New York (Williams, 2014). A month later in Ferguson, Missouri, tensions rose when Michael Brown, a black unarmed teenager died as a result of being shot by a police officer (Williams, 2014). In the following year, Freddie Gray, a young African American from Baltimore died from spinal injuries while in police custody (Rector, 2016).

In Canada, multiple incidences of police brutality involving racialized individuals have also brought into question the legitimacy of the police. On July 27, 2013 Sammy Yatim, an 18-year-old high school student was shot nine times on a city streetcar by a Toronto police officer (Kari, 2015). Two years later, Andrew Loku, a 45 year old black male known to suffer from mental illness was shot by another Toronto police officer in the hallway of his apartment building (Warnica, 2015). More recently, the Royal Canadian Mounted Police (RCMP) is facing allegations of excessive use of force for allegedly battering an Alberta First Nation man during the course of his arrest (Grant, 2016). The young male was reported to be recovering from a broken eye socket, broken nose, fractured cheek bone and fracture to the back of his head (Grant, 2016). In light of these incidences, protesters and activists across the United States and Canada have demanded extensive police reform and immediate improvements in officer conduct (Harvard Law Review, 2015). Several organizations have also demanded greater police action to address structural factors that allow for racial minorities to become common victims of incidents involving police use of excessive force (Harvard Law Review, 2015). In particular, "Black Lives Matter" urged that all police departments address police misconduct by improving police transparency and accountability (Harvard Law Review, 2015).

Public reaction to the fatal shootings and in-custody deaths of mainly young, racialized males strongly demonstrates the problematic state of police legitimacy and police-citizen relations (White, 2014). Indeed, some members of the public continue to harbour a growing sense of distrust for the police, consequently delegitimizing its very existence (TVO, 2016). According to Pino and Wiatrowski (2006), deteriorating police-citizen relations can be destructive to the structure and processes of democratic societies. They argue that negative perceptions of police can discourage public confidence, citizen engagement and compliance with legal orders (Pino & Wiatrowski, 2006). Consequently, police legitimacy becomes at risk of being entirely eroded. In

order to prevent this from occurring, governments have turned to multiple methods in efforts to restore public faith in police (Reiner, 2010). With that being said, I turn to the historical, traditional and modern methods used to construct and reconstruct police legitimacy.

2.3 Responses to Constructing and Reconstructing Police Legitimacy

According to Robert Reiner (2010), several methods were used to build British police legitimacy during the early twentieth century. In particular, the commitment to non-partisanship, one of the most basic principles upon which policing is predicated, was an important factor in shaping police legitimacy (Reiner, 2010). During this period, British police were free from any direct political control and police authorities abstained from intervening in operational policy (Reiner, 2010). In accordance to their depoliticized nature, police were expected to, "...prevent the slightest practical feeling or bias, being shown or felt by the police....the force should not only be, in fact, but be believed to be impartial in action, and should act on principle" (Reiner, 2010, pp. 70). In addition to non-partisanship, the police's dedication to remain accountable also strengthened public trust and faith in police (Reiner, 2010). While police were not controlled by a particular elected body, police action was reviewable by courts, and therefore accountable to the rule of law and to the British people (Reiner, 2010). Lastly, police officers adopted service roles in order to appear friendly and relatable to the labouring classes (Reiner, 2010). For example, police officers performed many tasks outside the range of their duties such as inspecting bridges and waking people up early in the morning for work (Reiner, 2010).

While the importance of maintaining non-partisanship and accountability remain, traditional methods for reconstructing police legitimacy are typically grounded in centralized government initiatives that aim to regulate and evaluate policing practices (Reiner, 2010). These include various independent organizations, Boards and committees to which police authorities are expected to report and answer for current crime trends, scandals and criminal allegations (Reiner,

2010). For example, the revised Police Act in 1976 established the Police Complaints Board in Britain to review and investigate public complaints alleging police misconduct (Kempa, 2007). In Canada, Police Services Boards in Ontario are currently responsible for establishing strategic priorities and evaluating police performance (OAPSB, 2017). According to Reiner (2010), civilian monitoring of police performance is expected to maintain police accountability, while simultaneously improving police legitimacy.

Tyler (2004) agrees that public assessment of police activity serves a critical role in shaping police legitimacy. Specifically, he suggests that public perceptions of procedural justice determine whether citizens perceive police officials as legitimate authority figures (Tyler, 2004). Procedural justice refers to the degree to which police officials treat citizens in an unbiased, impartial and trustworthy manner (Tyler, 2004). According to Tyler (2004), if citizens share positive perceptions of procedural justice, they are more likely to view police officers as legitimate authority figures (Tyler, 2004). As research continues to support this claim (Hinds, 2007; Murphy, Hinds & Fleming 2008; Tyler & Fagan, 2008), police services have emphasized the importance of procedurally fair practices to maintain and improve public perceptions of legitimacy. As Fredrik, Wolfe and Blasco (2014) suggest, police officials should continue to behave in procedurally fair manners in order to improve legitimacy perceptions, citizen compliance with legal orders, as well as citizen support and engagement. It should be noted that the existing literature largely fails to contextualize various mechanisms for improving police legitimacy in racialized inner-city neighbourhoods where residents share unique perceptions and experiences with law enforcement officials (Armaline et al., 2014). With that being said, the present study acknowledges that a centralized “one size fits all” government solution to improving perceptions of police legitimacy is not realistic nor appropriate for addressing a problem as complex as police legitimacy.

While centralized government initiatives continue to operate (Reiner, 2010), modern methods for improving police legitimacy now incorporate various technologies. For example, after recent studies concluded that social media may improve perceptions of police legitimacy by enabling transparency and citizen engagement, police services around the world have begun creating social media accounts, such as Twitter, to enhance how they interact with citizens (Grimmelikhuijsen & Meijer, 2015). In addition to social media, modern forms of mobile video surveillance are now increasingly being used to improve police legitimacy due to their perceived ability to provide greater transparency and accountability (Brucato, 2015). Video surveillance is unique in the sense that for the first time, both the police and public can now watch and review police-citizen encounters in real time and after the incident occurs (Brucato, 2015). Serving multiple purposes, video recordings can provide the public with a "snapshot" of police activities, be used as evidence in criminal proceedings and be used to exonerate officers facing false allegations of misconduct (Brucato, 2015).

Video surveillance first came to prominence with the use of closed-circuit television (CCTV) systems in the 70's and 80's as a means to produce more sophisticated means of crime control and anti-terrorism efforts (Boyd, Mateescu & Rosenblat, 2015). CCTVs enable the video recording of individuals in a variety of spaces including: shopping malls, retail spaces, roads, parking lots, public transportation hubs and other privately owned public arenas (Boyd et al., 2015). The rationalization for their use is deeply rooted in deterrence theory, which purports that the awareness of being scrutinized will deter individuals from committing a crime due to fear of punishment (Boyd et al., 2015). While this potential effect remains, CCTV recordings also provide credible evidence in court proceedings (Boyd et al., 2015).

After stationary surveillance cameras became a common fixture in public spaces, police services began using mobile video surveillance (Boyd et al., 2015). Currently, the most common

form of mobile video surveillance in policing is the use of in-car cameras or "dash-cams" (Boyd et al., 2015). Dash-cams were adopted by police services to assist in the prosecution of traffic offences relating to driving under the influence and to assist in the prosecution of drug offences and to record consent in vehicle searches (Boyd et al., 2015). However, their utility is restricted by these cameras' limited ability to capture interactions that take place only within the lens' parameters (Boyd et al., 2015). Other forms of mobile video recording devices that are less commonly used include cameras that mount onto Tasers (electroshock weapons) and gun-mounted cameras such as the Pistol Cam (Boyd et al., 2015).

In discussing video surveillance as a method for reconstructing police legitimacy, it is worth noting that it is not only used by the police but also by the public. Brucato (2015) argues that in addition to police use of video surveillance, the public also mobilizes video surveillance in order to hold officers to account. Commonly referred to as 'sousveillance', civilians rely on video cameras and cell phones to record police citizen encounters in order to render police activity transparent (Brucato, 2015). Brucato (2015) argues that sousveillance allows for, "...more symmetrical monitoring, where traditional hierarchies of surveillance are flattened" (pp. 458). In shifting the use of video surveillance from the police to the public, state institutions and government agencies have become subject to surveillance by the very society in which their surveillance powers operate. Similar to dash-cams, video recordings captured from the citizen's point of view are often legitimized through their perceived ability to provide self-evident and objective accounts of reality (Brucato, 2015).

2.3.1 Body Worn Cameras: The "New Fix"?

BWCs have been positioned as the latest form of mobile video surveillance aimed at reconstructing and improving police legitimacy. BWCs, also commonly referred to as "wearable video devices" or "on-officer video cameras", are mobile audio and video devices that enable

police officers to record police-citizen interactions from the officer's point of view (Boyd et al., 2015). Researchers suggest that the rapid adoption of BWCs by North American police services was triggered by a number of allegations of police use of excessive force perpetrated against young, black males which led to a call for police transparency and accountability (White, 2014). BWCs were considered by many to be the solution due to their potential to provide objective accounts of police-citizen encounters (Janne et al., 2016). Despite that the emergence of BWCs is now largely linked to police misconduct and police use of excessive force, the initial purpose of BWCs was to gather evidence to assist in the prosecution of criminal acts (Scheindlin, 2015). While this objective still remains, BWCs are now largely being used as a method to restore public faith in police and improve police-citizen relations (White, 2014).

The device is designed to be worn on a law enforcement officer's uniform which can include eye glasses, helmets, pockets or the centre of their chest (Hamilton Police Service, 2014; Officer of the Privacy Commissioner of Canada, 2015). While chest-mounted cameras are most commonly used, lapel-mounted cameras (placed slightly higher than the chest) have the potential to capture a better view, but are less frequently used due to their likelihood of getting knocked off during altercations (Boyd et al., 2015). BWCs attached to specially designed glasses also have the potential to record more accurately but are not as commonly used because the officer is not always able to wear sunglasses and it can cause discomfort (Boyd et al., 2015).

BWCs provide high-resolution digital recordings which provide clear images of individuals and are capable of running video analytical software, such as facial recognition (Office of the Privacy Commissioner of Canada, 2015). In addition, some models provide continuous recording capabilities that are equipped with a "pre-record" buffer that keeps video recordings 30 seconds before and 30 seconds after the officer turns the camera on (Boyd et al., 2015). This feature intends to capture the context leading up to an event. Other cameras will

record only during the time period of when the officer turns the camera on and off (Boyd et al., 2015). Microphones attached to the device are typically sensitive enough to capture not only the sounds associated with the officer-citizen interaction but also ambient sound that could include traffic noise or the conversations of bystanders (Office of the Privacy Commissioner of Canada, 2015).

In order for BWC video footage to be admissible in court, the person requesting its approval must demonstrate that the footage has not been tampered with or manipulated in any form (Boyd et al., 2015). Many manufacturers offer BWC safeguards to ensure proper identification and ongoing integrity. Some models such as the AXON Body by TASER International mark each camera with a security hash and prohibit the user from deleting any video footage (Boyd et al., 2015). Several other manufacturers, such as Digital Alley, also offer optional software that can track individual use and review of BWC footage (Boyd et al., 2015). Video footage is also equipped with time/date stamps and GPS functions in order to protect the authenticity and integrity of the recordings (Boyd et al., 2015). While all BWCs have a time/date stamp embedded in the video footage, only few models have GPS capabilities that can track the recording locations. This feature, also sometimes referred to as "geotagging", is useful for mapping sources of high crime areas and problematic police-public encounters (Boyd et al., 2015). Finally, all models are equipped with software that allows users to view and manage body-worn camera recordings (Boyd et al., 2015). Cloud-based video management's tools, such as Evidence.com by TASER International, are the most common forms of video management software. This allows agencies to securely store and track access to all video recordings (Boyd et al., 2015)

There are several manufacturers that produce many makes and models of BWCs, each containing different features and capabilities; however, the BWC market is largely dominated by

a single company: Axon (formerly known as Taser International). Axon is estimated to control approximately three quarters of the BWC market in the United States (Gelles, 2016). The company currently offers two different models of BWCs including: Axon Body 2, a camera designed to “record and stream unlimited HD on-officer video with enhanced security features” and Axon Flex 2, a camera with similar capabilities but includes a swivel head which allows for a 120-degree field of view (Axon, 2017). In addition to providing police services with BWCs, Axon also sells an accompanying site, known as Evidence.com, to store, manage and review BWC recordings (Gelles, 2016). Recently, Axon announced that Canadian police services would be able to pilot Axon BWCs and its cloud-based management site for a year-long trial (Cision, 2017). This is particularly concerning as the decision seeks to only further perpetuate the monopolization of the BWC market. While the potential effects are alarming and in need of immediate attention, an analysis pertaining to the monopolization of the BWC market is beyond the scope of the present study and will therefore not be addressed in this paper.

BWCs were first adopted in the United Kingdom by the Plymouth Police Department in 2006, primarily to collect evidence for cases involving intimate partner violence (Police and Crime Standards Directorate, 2007). The cameras were used on a limited basis for eight weeks during a domestic violence enforcement campaign (Police and Crime Standards Directorate, 2007). In 2006, only three BWCs were deployed in Renfrewshire, Scotland, but three years later the number was increased to thirty-eight BWCs (Smykla et al., 2016). In June 2010, BWCs were deployed in Aberdeen, Scotland to test the impact of BWCs (Smykla et al., 2016). The earliest agency in the United States to adopt BWCs was the Burnsville Police Department in Minnesota in 2008 (Brucato, 2015). However, BWCs weren’t being widely used in the United States until several years later when police services were presented with federal funding to finance the development and use of BWCs (Boyd et al., 2015). In December 2014, President Barack Obama

proposed the Body-Worn Camera Partnership Program, as part of a broader three-year \$263 million initiative to strengthen community policing (Boyd et al., 2015). The program projected an investment of \$75 million through a 50 percent fund-matching arrangement with states and municipalities to cover equipment and video storage expenses (Boyd et al., 2015). In Canada, the Victoria Police Department (2010) was the first to test BWCs in 2009. Since then, Calgary, Edmonton, Toronto and the Royal Canadian Mounted Police (RCMP) have each conducted separate pilot projects to test the effectiveness of BWCs (Hamilton Police Service, 2014). Amherstburg Police Service in Ontario is currently the only police service in Canada that regularly uses BWCs (CBC News, 2016).

2.4 Impact Studies

The existing research on BWCs includes eleven studies that purport to demonstrate the impact of BWCs on police use of excessive force, citizen complaints and other outcomes. These include four studies (Owens et al., 2014; Ariel et al., 2015; Ariel, 2016; Ariel et al., 2017) that use random assignment of program and control conditions to test the impact of BWCs. Two published studies, excluding the Toronto Police Service report, examine the correlations between BWCs and outcomes (Victoria Police Department, 2010; Edmonton Police Service, 2015); three published studies measure outcomes before and after implementation of BWCs without the use of control conditions (Police and Crime Standards Directorate, 2007; ODS Consulting, 2011; Katz, & Kurtenbach 2014); and two published report compare the effects of BWCs between groups without the use of random assignment (Miller et al., 2014; Ready & Young, 2015). I discuss each in temporal order to demonstrate the growth in literature across time and place. Then, I turn to the existing literature on officer and public perceptions of BWCs followed by a detailed discussion on the use and evaluation of BWCs in the Toronto Police Service.

When British police began testing BWCs in 2006, the Plymouth Basic Command Unit

initiated a 17-month study to evaluate the impact of BWCs (Police and Crime Standards Directorate, 2007). The study included 300 police officers from the Plymouth Police Department and pre/post data was collected from 2005/2006 to 2006/2007. The U.K. Home Officer commissioned Devon and Cornwall Police to provide a pre/post analysis of the results and produce recommendations for change. The findings showed a reduction of 1.2 percent in violent crime, an increase of 26.9 percent in sanction detentions for violent offences, an increase of 7.3 percent in the number of violent crimes prosecuted, a reduction of 22.4 percent of officer time spent on paperwork, and an overall reduction of 14.3 percent of citizen complaints against the police (Police and Crime Standards Directorate, 2007). According to Smykla and colleagues (2016), the design may have established moderate causality but is methodologically flawed due to several threats to internal validity.

In July 2009, the Victoria Police Department became the first police service in Canada to test the impact of BWCs (Victoria Police Department, 2010). The pilot project lasted four months and included 20 police officers. The police department used only four BWCs that were made available for voluntary use by foot and bicycle patrol officers. The findings revealed that unlike Plymouth, Victoria police officers reported spending more time completing paperwork when BWC video evidence was involved. The study did not report data on police misconduct, citizen complaints, police accountability or effectiveness in reducing crime. Consequently, no conclusions about the effectiveness of BWCs can be drawn from this study. However, the report did cover several issues related to BWCs such as technical limitations, implementation and policy, data collection, storage and use, training, and equipment selection.

In 2011, Organizational Development and Support (ODS) Consulting reviewed two separate pilot projects on BWCs in Renfrewshire and Aberdeen, Scotland. In Renfrewshire, the first eight months of operations were reviewed from June 2009 to January 2010. In Aberdeen,

two separate areas of deployment were reviewed from June 2010 to September 2010. The data collected during BWC deployment in Aberdeen in 2009 and 2010 showed a reduction in several offenses including: peace offenses (19 %), vandalism (29%), minor assaults (27%) and serious assaults (60%) (ODS Consulting, 2011, pp. 7). The findings also revealed an overall reduction in crime of 26 percent compared to only a 1 percent reduction in crime for all other areas in Aberdeen where BWCs were not deployed. The study also suggests that BWCs had the effect of reducing guilty plea rates and citizen complaints. To evaluate the implementation of BWCs in Renfrewshire, the authors chose to compare the results to crime information from Renfrewshire and Inverclyde police divisions. The authors found a reduction in violent crime, a reduction in malicious mischief and an increase in guilty pleas when BWCs were involved. Similar to the Plymouth study, Smykla and colleagues (2016) suggest that the flawed study design significantly limits the validity of the findings.

In 2014, England's College of Policing developed a randomized control trial to examine the impact of BWCs on the outcomes of intimate partner violence (IPV) incidents in Essex, England (Owens et al., 2014). While the study provides an insightful analysis, the findings were not independently peer reviewed and significant implementations problems were reported. The study randomly assigned 70 officers to wear BWCs and 278 officers to a control group. Online surveys were administered to each officer but only 40 BWC officers responded to the survey. In addition, researchers also conducted 15 officer interviews. The findings from the survey revealed that only 16.6 % of officers assigned to wear body-worn camera reported using them during IPV incidents, mainly because the device was broken or they chose not to wear them (Owens et al., 2014). The findings also indicated that criminal charges were more likely to result from IPV incidents attended by BWC officers (81%) compared to control group officers (72%).

In October 2012, the Mesa Police Department in Arizona implemented a year-long pilot

project to examine the impact and value of BWCs (Miller et al., 2014). This was the first evaluation of BWCs in the United States and was conducted by researchers at Arizona State University (Miller et al., 2014). During the year-long pilot project, 50 police officers were assigned BWCs and 50 other police officers were expected to carry out their daily activities without BWCs. The two groups were demographically similar in terms of gender, age, race and other characteristics (Miller et al., 2014). The evaluation reported 60 percent fewer citizen complaints against BWC officers compared to control group officers and an overall reduction of 40 percent in citizen complaints (Miller et al., 2014). The findings also revealed a 75 percent reduction in police use of force compared to the year prior when BWCs were not being used. Ready and Young (2015) analyzed 3698 field contact reports collected during the same pilot project and found that BWC officers were less likely to engage in stop-and-frisks and make arrests; however they were more likely to initiate encounters and issue warnings.

In April 2013, the Phoenix (Arizona) Police Department implemented BWCs in its Maryvale precinct to improve police accountability and police response to IPV (Katz & Kurtenbach, 2014). The precinct is divided in two areas and all 50 to 55 officers in each area were issued BWCs. The study relied on a before-and-after comparison of the implementation of BWCs. The findings revealed that BWC officers (42.6%) were almost three times more likely to make arrests than control group officers (14.9%) Preliminary results revealed that self-reported complaints against police officers decreased by 60 percent during the study period. However, official police records indicated a 44 percent reduction in citizen complaints against police officers. The study also found that following BWC deployment, cases were more likely to be investigated, result in charges filed and end in guilty pleas or verdicts (Katz & Kurtenbach, 2014).

While the above studies seem to suggest that BWCs have the effect of reducing police use

of excessive force, citizen complaints and other outcomes, it is important to acknowledge that the research designs were methodologically flawed due to internal validity threats and many of the analyses were not produced by independent evaluators (Smykla et al., 2014). Consequently, considerable caution should be used when evaluating the validity and generalizability of these results. Since then, three studies have attempted to address the limitations associated with previous studies by designing their studies in ways that attempt to ensure internal and external validity. The earliest peer-reviewed study on the impact of BWCs was conducted by Ariel and colleagues (2015) on the implementation of BWC in Rialto, California. To evaluate the use and value of BWCs, Ariel and colleagues (2015) examined their impact on police use of force and citizen complaints in randomized-controlled settings. A total of 998 police officers were randomly assigned to "experimental-shifts" in which officers were issued BWCs or to "control-shifts" in which officers carried out their daily duties without BWCs. The findings revealed that experimental conditions involved 50 percent fewer use of force incidents than in control conditions. Stated differently, the likelihood of police officers engaging in use of force in control conditions were roughly twice those in experimental conditions. The findings also revealed that following camera deployment, there was a 60 percent reduction in officer use of force. A pre/post analysis of use of force and complaints data revealed that the number of citizen complaints filed against police officers decreased from 0.7 complaints per 1,000 police-citizen encounters to 0.07 per 1,000 police-citizen encounters. The findings also revealed an 88 percent reduction in the number of citizen complaints between the year prior to and following camera deployment.

While Ariel (2016) notes that the Rialto findings (Ariel et al., 2015) have been widely cited across multiple disciplines, the study received considerable backlash on its generalizability due to the small size of the department. In order to address this limitation, Ariel (2016) initiated another study on the impact of BWCs but this time in one of the largest state law enforcement

agencies in the United States —the Denver Police Department—over a six month period. The purpose of the study was to test the effect of using BWCs in frontline operations on police use of force, citizen complaints against officers and arrest. One out of the six districts in the Denver Police Department served as the experiment group in which officers were assigned to wear BWCs and the others served as control groups in which officers carried out their daily duties without BWCs. The results of the experiment group were compared to the other control groups in order to evaluate the impact of using BWCs. The findings revealed that: (1) BWCs did not have a significant impact on the use of force, (2) the experiment group received more citizen complaints for police misconduct, and (3) the odds for an arrest were about 18% higher in control groups where BWCs were not being used.

The most recent study to explore the impact of BWCs on citizen complaints against police officers comes from a group of researchers at Cambridge University (Ariel et al., 2017). The study analyzes British and U.S. police departments in a “global, multisite randomized controlled trial” to test whether BWCs reduce citizen complaints against police (pp. 293). The study included a total of 1,847 officers that were assigned into treatment and control conditions but used police shifts as the unit of analysis (N=4,264). Using a prospective meta-analytic approach, the study found a 93 percent before-after reduction in citizen complaints against officers.

2.5 Perception Studies: Public and Police Perceptions of Body-Worn Cameras

To date, virtually no studies have evaluated public perceptions of BWCs (White, 2014). The findings from two Canadian studies (Edmonton Police Service, 2015; Toronto Police Service, 2016) that attempt to examine local perceptions of BWCs fail to provide significant insight into this area due to multiple internal validity threats. For example, the Edmonton Police Service (2015) found that the public surveyed in their study generally viewed BWCs favourably. However, the researchers note that public expectations of the technology may have been too high

and therefore, unrealistic (Edmonton Police Service, 2015). ODS Consulting (2011) reported similar findings after surveying 701 citizens in Northfield and Mastrick in Scotland. The respondents believed that BWCs would make their community safer and supported the continued use of BWCs. The same researchers conducted an online survey of 97 citizens in Renfrewshire and found that the majority of the respondents believed that BWCs could aid in the reduction of crime and supported the continued use of BWCs. As previously mentioned, the ODS Consulting study (2011) is methodologically flawed and therefore lacks generalizability and validity. While the existing research largely fails to consider public perceptions of BWCs, it has been more successful in examining police officer perceptions of BWCs. Only in recent years have researchers begun to explore officer views of BWCs and its relation to their development and use. The existing research includes four studies that examine police officer perceptions of BWCs and are all based on findings drawn from U.S. police departments.

Jennings, Fridell and Lynch (2014) were the first to explore officer perceptions of BWCs in order to determine the extent to which officers were open to police agencies adopting BWCs, and to gain insight on how officers perceived their considerations and consequences. A total of ninety-one officers in Orlando, Florida completed a survey that was administered to them prior to the deployment of BWCs. The survey covered various domains including: general perceptions of BWCs, perceived effects of BWCs on citizen behaviour and their own behaviour, and the behaviour of other officers. The findings showed that Orlando police officers were generally supportive of the use of BWCs in their agency (61%) and felt comfortable wearing them (77%). However, only 18.7 percent of the officers surveyed felt that BWCs would make them feel safer. The authors also reported that officers had mixed views on how BWCs would impact officer behaviour. For example, officers were more likely to perceive BWCs as having the potential to change other officer's behaviour than they were to believe its potential to impact their own

behaviour. Jennings and colleagues (2014) also reported that sex and race had little impact on officer perceptions of BWCs. The only reported difference was that non-white officers were more likely to perceive BWCs as having the potential to reduce their own use of force.

In 2016, Smykla and colleagues (2016) studied law enforcement command staff perceptions of BWC in Sunshine County using surveys that were administered to thirty-six different agencies. The response rate was 67 percent with a total of twenty-four officers who completed the survey. It is not clear how many of these respondents belonged to agencies that were or are currently using BWCs. The survey included twenty-nine items that were divided into eight perpetual domains that included: Officer Behaviour, Officer Effectiveness, Evidentiary Impact, Privacy, Safety, Use of Force, Impact on Citizens, and Public/Media Impact (Smykla et al., 2016, pp. 433). The findings showed that the respondents largely believe that BWCs will impact police officers' decision to use force and police will be more reluctant to use necessary force. The other main findings include that: respondents believed that BWCs are supported by the public due to their lack of trust in police, the media will use BWC video footage to embarrass police, and media pressure has played a large role in decisions to adopt BWCs. Finally, while the authors suggest that most were supportive of BWCs, only close to 50 percent of the respondents indicated that they strongly agree or agree with the use of BWC in their police agency. The remaining respondents fell under "neutral", "disagree" or "strongly disagree".

Janne and colleagues (2016) argue that the small number of studies that explore police officer perceptions of BWCs provide limited insight due to their focus on individual police departments and failure to address attitudes pre- and post- BWC deployment. In order to address these limitations, Janne and colleagues (2016) conducted a study that evaluated officer perceptions prior to and after BWC implementation across three separate police departments including: the Phoenix (AZ) Police Department, the Spokane (WA) Police Department, and the

Tempe (AZ) Police Department. The same survey was administered to officers in each police department both before and after BWC implementation. The findings revealed that there was a significant variation in officer perceptions across departments' pre-deployment. For example, Phoenix officers shared negative perceptions of BWCs, Tempe officers mainly shared positive perceptions and Spokane officers' perceptions fell somewhere in between (Janne et al., 2016). The same results continued post-deployment. Officers in each department reported improved perceptions of comfort and ease of use of BWCs, but they became less likely to believe that BWCs would have a positive impact on citizens.

The most recent study (Pelfrey Jr & Keener, 2016) to examine officer perceptions of BWCs uses a mixed-method approach to understand the perceptions of officers in a large university police agency. The study uses surveys and focus groups to understand patrol officer and senior police administrator perceptions of BWCs prior to their full implementation. The findings suggest that senior police administrators were largely supportive of BWCs for a number of reasons including: their potential to provide transparency, improve complaint resolution, improve criminal justice effectiveness, and reduce the use of police force. However, the command staff reported two primary consequences which included privacy and cost. The majority of patrol officers also reported potential privacy concerns as one of the main consequences. They noted that policing in a university brought in unique challenges because they had to apply BWC policy to university policies. Patrol officers reported knowing when to turn the camera on and off as their biggest concern.

Several of the aforementioned impact studies also included analyses of police officer perceptions of BWCs. For example, the Victoria Police Department study (2010) administered an online survey to six patrol officers at the end of the BWC trial period and found that most respondents were supportive of BWCs. The respondents also reported positive perceptions on

ease of use and impact on daily duties. As part of the Mesa BWC study (Miller et al., 2014), officer attitudes and behaviour were examined at multiple points in time. Results from the surveys administered to officers indicated that approximately 80 percent believed that BWCs would lead to more professional police behaviour. However, only 23 percent supported future use of BWCs in their agency and less than half believed that other officers would welcome the presence of BWCs. In the Phoenix study, Katz and Kurtenbach (2014) also examined officer perceptions and found that BWC officers were largely in support of their continued use, viewed BWCs as having the potential to provide more accurate account of incidents, and improve the quality of evidence. In the Mesa study, Ready and Young (2015) found that BWC officers reported BWCs as being useful in situations where they engaged in stop-and-frisks, gave out warnings and made arrests. Finally, in the Edmonton Police Service (2015) study, officers reported increased workload with the use of BWCs, increased hesitation and fear of judgement and more “robotic” interactions with citizens. BWC officers also perceived other officers and first responders as being less welcoming of their presence when they were equipped with body-worn cameras (Edmonton Police Service, 2015).

2.6 Considerations and Consequences of Body-Worn Cameras

Accountability and Transparency

There are several potential considerations associated with the use of BWCs such as their potential to deescalate situations (Edmonton Police Service, 2015; Toronto Police Service, 2016), shorten the amount of time spent in court (Toronto Police Service, 2016), and be used as an evidence-gathering tool (Edmonton Police Service, 2015; Toronto Police Service, 2016); however, one of the most commonly cited benefits of BWCs is their potential to provide greater police transparency and accountability (White, 2014). According to Boyd and colleagues (2015), BWCs have the potential to provide the public with a better understanding of police activities,

hold police accountable to the public and the law, and exonerate officers from false complaints. In doing so, the impact of police transparency and accountability can lead to better police-community relations, thereby reproducing the legitimacy of law enforcement institutions (Brucato, 2015). However, it is important to note that this claim has not been sufficiently tested as there have been virtually no studies on citizen perceptions of BWCs (White, 2014). This claim is also undermined by arguments that question the reliability and objectivity of BWC video footage. Indeed, there are multiple scenarios that could jeopardize the objectivity and reliability of BWC video footage including: obstructions in front of the camera lens, (2) camera pointing in a direction that is not in the officer's point of view, (3) camera pointing in a direction that is not capturing important footage outside of the officer's point of view, (4) camera shifting out of place when physical force is necessary, and (5) camera inadvertently turning off (Hamilton Police Service, 2014). When the Edmonton Police Service (2015) piloted BWCs in a three-year long pilot project, the final report noted that out of 16 different cameras, none of them met the operational needs of the Edmonton Police Service due to objectivity and reliability concerns. For example, when temperatures dropped below -25 C, some of the batteries failed (Edmonton Police Service, 2015). The picture quality was also poor and on some models, police had difficulty raising a gun without blocking the lens (Edmonton Police Service, 2015). Researchers also argue that BWCs have the potential to create a locus of law enforcement control in the sense that since officers decide when to turn the camera on and off, there is a possibility that important video footage will not be captured in order to protect the officer or their organization from allegations of misconduct (Harvard Law Review, 2015). There is also a possibility that officers may tamper with video evidence and deny public access to certain video footage (Harvard Law Review, 2015). However, Brucato (2015) argues that these concerns can be addressed with effective policy and consistent use of BWCs.

Police Misconduct and Citizen Complaints

Another benefit most commonly associated with the use of BWCs is their potential to reduce police misconduct and citizen complaints. In line with deterrence theory, researchers suggest that when police officers and citizens are made aware of BWCs, they will modify their behaviour in ways to reflect socially-desirable standards due to the awareness of being observed (Ariel et al., 2014). The majority of impact studies on BWCs appear to support this claim. For example, the Plymouth study found that citizen complaints against police officers reduced by 14.3 percent with the use of BWCs (Police and Crime Standards Directorate, 2007). The study in Aberdeen, Scotland also found that BWCs had the effect of reducing citizen complaints (ODS Consulting, 2007). In Mesa, Arizona the use of BWCs led to an overall reduction of 40 percent in citizen complaints and a 75 percent reduction in police use of force. In Phoenix, Arizona, official police records indicated a 44 percent reduction in citizen complaints against police officers (Katz & Kurtenbach, 2014). Finally, the Rialto study revealed that experimental conditions involved 50 percent fewer use of force incidents than in control conditions and an 88 percent reduction in citizen complaints between the year prior to and following camera deployment (Ariel et al., 2015).

In line with citizen complaints, reports also suggest that another benefit associated with the use of BWCs is their potential to exonerate officers facing false allegations of misconduct (Brucato, 2015). In both the Edmonton (2015) and Toronto (2016) studies, officers cited the camera's potential to protect officers from false complaints as a primary benefit. However, as previously mentioned it is important to acknowledge that several of these studies are methodologically flawed due to internal and external validity threats (Smykla et al., 2016). In addition, Ariel's recent study on the impact of BWCs in the Denver Police Department found that BWCs did not have a significant impact on police use of force and the experiment group received

more citizen complaints for police misconduct.

Privacy

The various privacy implications that may be caused by the use of BWCs are a primary concern amongst those who encourage police services to use caution when considering BWC programs (Smykla et al., 2016). First, there is a concern that the camera will capture people, places and things that are not intended to be recorded by the officer (White, 2014). As White (2014) suggests, “The camera will capture everything in its view and that will include people who are not suspects in the (police) stop” (pp. 27). Consequently, there is a potential risk that people may not be aware of when they are being recorded and may unknowingly have their information stored in a police database. BWCs also have the ability to collect sensitive information that can potentially be linked with other information through the use of facial recognition software and metadata leading to additional privacy concerns (Office of the Privacy Commissioner of Canada, 2015). Metadata can include information about the user of the device, the device itself and the activities being recorded such as date, time and location (Smykla et al., 2016). When this information is connected to an “identifiable individual” it has the potential to reveal personal information (Smykla et al., 2016).

The unique mobile nature of BWCs which allows officers to record virtually anywhere also poses significant privacy implications. Indeed, when officers enter private spaces such as residences and hospitals, there is a greater potential that the camera will capture highly sensitive and personal information (Office of the Privacy Commissioner of Canada, 2015). These concerns are heightened when police officers encounter individuals in vulnerable situations including during emotional or mental health crises, intimate partner disputes and following violent/sexual victimization (Smykla et al., 2016). Officers have also expressed their own privacy concerns about the potential for supervisors to use BWCs as a tool for micromanagement and criticism

(Edmonton Police Service, 2015; Miller et al., 2014; Toronto Police Service, 2016; White, 2014).

As Miller and colleagues (2014) point out, these privacy concerns are heightened due to the fact that BWC footage can be accessed and obtained by the public through freedom of information requests.

Several steps can be taken in order to minimize potential privacy risks. For example, most police departments in the United States have developed policies that govern when supervisors are able to view the footage of their subordinates (Miller et al., 2014). The Officer of the Privacy Commissioner of Canada (2015) suggests that police services can also encrypt recordings, implement strict restrictions on who can access the recordings and purchase cameras that have edit-proof video and audio features. Finally, police services can and should conduct frequent audits of the handling of BWC footage in order to ensure that recordings have not been accessed inappropriately or tampered with (Office of the Privacy Commissioner of Canada, 2015).

Storage

There are several challenges associated with the storage and management of BWC video recordings. First, the storage infrastructure and accompanying upgrades are costly. To give a rough idea, the Hamilton Police Service (2014) in Ontario estimated the total cost to be \$2,594,400. This estimate does not account for any future costs that would be spent on upgrading the servers. Second, the recommendations on video storage and management by BWC manufacturers are not consistent and may not always be appropriate for the needs of various police services (Hamilton Police Service, 2014). Indeed, police services grapple with different call volumes and this directly impacts the storage space required to store and manage videos (Hamilton Police Service, 2014).

Third, there are several privacy and confidentiality issues associated with the use of cloud storage. Criminal defence lawyer Rick Horowitz (2017) suggests that when BWC video

recordings are stored by a third party and not regulated by municipal, provincial or federal governments there is a high potential for confidentiality breaches. For example, in several States such as California, lawyers are required to download discovery through Evidence.com; a site owned and operated by Axon that is used to store and manage BWC video recordings. Defence lawyers argue that Axon's control over the BWC market forces them to agree to broad terms and conditions which can potentially jeopardize their client's right to a fair trial due to possible interference and tampering of evidence by a third party (Kopfstein, 2017). Indeed, the agreement allows Axon to delete data, discontinue access at any time and makes it difficult for individuals to initiate a legal claim against the company for any suspected tampering or termination of the footage (Kopfstein, 2017). As Horowitz (2017) points out, this agreement is executed without any input from the public and forces those wishing to gain public access to records and documents to abide by the corporation's rules and regulation. While Canadian police services typically partake in open bidding processes which minimizes the risk of being "forced" into agreements (Balko, 2017), the consequences of transferring data ownership to a third party remain. Specifically, Canadian police services must also grapple with high costs and possible tampering or interference with video footage (Balko, 2017).

Cost

The costs associated with implementing and maintaining the technology as well as the storage of video recordings is another significant challenge that police services often face. While it is difficult to estimate the exact costs of deploying BWCs due to several varying factors, there is general consensus amongst police services and politicians alike that the costs are very high (Edmonton Police Service, 2015; Toronto Police Service, 2016)—and at times unaffordable (Crawford, 2016). The most significant costs relate to the storage and management of video recordings while additional costs include purchasing the hardware and hiring personnel to store

and manage the videos (Hamilton Police Service, 2014). The high costs coupled with insufficient evidence on the effectiveness and efficiency of BWCs (Crawford, 2016; Edmonton Police Service, 2015) led both the RCMP and the Edmonton Police Service to abandon the adoption of BWCs. In the Toronto (2016) study, several officers believed that the costs could be better spent elsewhere such as on hiring additional officers and purchasing other equipment they deemed more necessary. To date, not a single study has produced a comprehensive cost-benefit analysis of BWCs (Edmonton Police Service, 2015).

Officer Buy-In

Finally, officer buy-in is a significant challenge that many police services face when implementing BWC programs (Janne et al., 2016). Officer buy-in is crucial for effective and efficient implementation of BWCs as it ensures officer compliance and proper use (Janne et al., 2016). As Janne and colleagues (2016) suggest, “BWC programs rely on line-level officers to comply with department procedures regarding camera activation, video tagging and categorizing, and video footage upload” (pp. 281-82). While police services acknowledge the importance of officer buy-in, they are less successful in fostering and maintaining it (Janne et al., 2016). Similar to other police reforms, BWC programs are commonly developed and executed in a top-down approach with little involvement from front-line officers (Janne et al., 2016). Consequently, officers may harbour skepticism and uncertainty towards the use and value of BWCs. For example, Janne and colleagues (2016) suggest that front-line officers “worry that BWCs will be used by supervisors to jam up the rank-and file” (pp. 281). White (2014) suggests that police unions in several American cities such as New York have claimed that BWCs signify a negative change in working conditions that must be appropriately addressed during contract negotiations. As demonstrated in both the Phoenix and Rialto studies, these concerns can typically be alleviated if officer input is sought during the early stages of BWC programs, particularly in

regards to policies regarding camera use (White, 2014).

2.8 Body-Worn Cameras in the Toronto Police Service

Given that the present study seeks to understand police officer perceptions of BWCs in the Toronto Police Service, it is only fitting to explore Toronto's use and evaluation of BWCs on its own. According to the Toronto Police Service (2016) the decision to implement BWCs in a year-long pilot project was largely the result of multiple reports that recommended the use of BWCs to improve community engagements and restore public faith in police. For example, the Police and Community Engagement Review (PACER) produced a report in 2013 recommending that the Service explore the possibility of equipping all frontline officers with BWCs. A year later in 2014 the Coroner's Inquest into the deaths of Reyal Jardine Douglas, Sylvia Klibingaitis and Michael Eligon recommended that the Service adopt improved equipment and alternative use of force measures such as BWCs. That same year, the Honourable Frank Iacobucci was commissioned by the Toronto Police Service to, "undertake an independent review of the use of lethal force by the TPS, with a particular focus on encounters between police and ... people in crisis" (Toronto Police Service, 2014, pp. 5) The final report provides a number of recommendations to improve police response to and treatment of people in crisis; one of those being the use of BWCs in order to improve police transparency and accountability.

Shortly after, the Toronto Police Service (2016) initiated its year-long pilot project in 2014 to explore "the benefits, challenges and issues surrounding the use of body-worn cameras ... and the feasibility of adopting the cameras for regular use" (pp. 6). The objectives of the Toronto Police Service (2016) BWC pilot project were to (pp. 6):

- 1) enhance public and police officer safety;
- 2) enhance public trust and police legitimacy;
- 3) enhance the commitment to bias free service delivery by officers to the public;
- 4) protect officers from unwarranted accusations of misconduct;

- 5) provide improved evidence for investigative, judicial, and oversight purposes; and
- 6) provide information as to the effectiveness of Service procedures and training

The first phase of the pilot project included the initial training which ran from March 23rd, 2015 to May 7th 2015. The second phase included the actual use of BWCs which began on May 18th, 2015 and continued through March 31st, 2016 (Toronto Police Service, 2016). A total of 85 officers (both constables and sergeants) participated in the pilot project. According to the Toronto Police Service (2016) the officers “used the body-worn cameras for at least some time during the pilot period” (pp. 9). Therefore, it is likely that the officers did not wear the BWCs for the entire duration of the pilot project. The following divisions were chosen to participate in the pilot project: 43 Division and Community Response (CR), 55 Division Primary Response (PR) D Platoon, Traffic Services Motor Squad and TAVIS Rapid Response Blue Team 2. For the purpose of evaluating the impact of BWCs, the study attempted to provide comparison groups by using divisions with officers in similar functions in environments. However, given that the study did not use random assignment, the comparison groups do not serve as control groups and therefore offer very limited insight for comparison (Smykla et al., 2016).

The study tested two different devices: the Panasonic MK2 (Mark 2) camera and the Reveal RS2 camera (Toronto Police Service, 2016). The Panasonic camera included a 30 second pre-event buffer which allowed the device to capture only video footage and not audio 30 seconds prior to the activation of the camera (Toronto Police Service, 2016). The Panasonic camera also allowed officers to classify the video on the camera while out in the field instead of at their workstations. The Reveal camera had similar features to the Panasonic camera with the added feature of “an outward-facing LED screen that allowed the public to view themselves being recorded” (Toronto Police Service, 2016, pp.58). The Reveal camera also included a 30 second buffer but did not allow officers to classify their videos while out in the field.

The study used both qualitative and quantitative research methods to understand the benefits and challenges associated with the use of BWCs (Toronto Police Service, 2016). Surveys were administered to citizens and officers to understand community and officer perceptions of “officer safety, training, interaction with the public, implementation and operation of the cameras, police accountability, and level of public awareness, as well as general impressions of benefits and drawbacks of body-worn cameras” (pp. 8). Surveys were emailed to participating officers prior to the deployment of cameras in January/February 2015 and again in March 2016. The Service’s annual personnel surveys in December 2014 and 2015 also included a question about the level of support for BWCs. In total, over 45,000 surveys were distributed to the community, but only 7,500 were completed and returned resulting in a 17 percent response rate. Follow-up surveys were mailed on a monthly basis to people who had contact with a police officer wearing a BWC during the pilot project. Out of 4,285 surveys, 427 were completed and returned with only 319 indicated that they had in fact had contact with an officer wearing a BWC. At the end of the pilot project, individual interviews were held with some officers and supervisors who were assigned to wear BWCs. Additional interviews were conducted with investigators unit complain-coordinators, Information Technology Service personnel, Access & Privacy personnel, Video Evidence personnel, Toronto Police College personnel, and representatives of Crown Operations in the Ministry of the Attorney General. Quantitative data was also collected, including on-duty injuries to officers, citizen complaints, officer workload and availability indicators, requests to Video Evidence, Freedom of Information requests and calls to the ITS Help Desk (pp. 9).

While the TPS (2016) study adopted an outcomes-based approach to evaluating BWCs, the results offered very little insight on several key areas. Citing a lack of evidence, the study was not able to draw any conclusions on the impact of BWCs on public complaints, officer conduct,

special investigations and court proceedings. Beyond outcomes, the report also stated that neither vendors (Panasonic and Reveal) met the needs of the Service due to poor battery life, hardware, software stability and risks of data corruption. The report also cited high costs as another drawback of BWCs. In particular, “the most expensive component of any wider use of body-worn cameras would be the technology and storage of the video recordings” (pp. 65). While the study was not able to establish the impact of BWCs, it was more successful in uncovering public and police officer perceptions of BWCs. The study found that a total of 94 percent of people surveyed in 2016 supported the use of BWCs and felt that they could have a positive impact on: improved community safety, police accountability, police transparency and public trust in police. However, 58 percent of BWC officers and 42 percent of comparison officers supported the future use of BWCs.

In addition to level of support; the study reported several other findings on police officer perceptions of BWCs. The report states that while 60 percent of officers felt that the procedure was generally clear, officers were less certain that the procedure addressed their own privacy concerns. Over one third of the BWC officers (37%) felt that changes should be made to the procedure, particularly in reference to when to turn the camera on and off. If accidentally turned on, cameras could capture confidential informants, personal conversations and investigative techniques (Toronto Police Service, 2016). Police officers were also asked to share their views on whether BWCs improve police accountability and public trust in police. At the end of the pilot, 59 percent of the BWCs felt that BWCs will make the TPS more accountable to the public. However, only 35 percent of officers felt that BWCs will improve public trust in police.

BWC officers also reported that people behaved differently when they were around a BWC. For example, officers stated that responders, hospital staff and security guards became more cautious around them or purposely tried to stay out of the camera’s view. In addition,

approximately 75 percent of the officers that said BWCs had changed people's behaviour felt that citizens were less likely to approach officers and offer them information. However, over half of the BWC officers reported that some people were less likely to be physically aggressive. At the end of the pilot project, 32 percent of the BWC officers said that cameras changed the way they dealt with the community. Out of these officers, 75 percent said they acted more cautiously and 66 percent said that were less likely to engage in proactive policing. The majority of BWC officers (67%) who were surveyed felt that BWCs limit officer discretion and 100 percent of BWC officers who were interviewed agreed with this statement. The study also found that the majority of BWC officers felt that BWCs did not make them feel safer and less than half felt that it would not reduce the number of assaults and citizen complaints against officers.

Overall, the main benefits of BWCs cited by officers included: potential to protect officers from false complaints, potential to deescalate situations, potential to shorten court time for some cases, improved police transparency and useful evidence-gathering tool. The main consequences cited by officers included: potential to create a barrier between officers and the public, limits officer discretion, increases administrative workload for officers, leads to technological problems, and creates implications for officer safety. The study concluded that,

“Overall, support for the body-worn cameras was extremely strong in the community, and strong, though somewhat less so, among those members of the community who'd had law enforcement contact with an officer wearing a camera. The officers who wore the camera during the pilot also generally supported the body-worn cameras, though not as strongly as the community” (pp. 67).

“If the challenges of the evaluation can be addressed, the use of body-worn cameras by Toronto police officers would be seen as a powerful indication of commitment to accountability, the desire to strengthen public trust and police legitimacy, and a commitment to ensuring officers are protected from unwarranted accusations of misconduct” (pp. 70).

While it is not my intention to criticize the value or validity of the study, it is important to note that the data is not sufficient to validate the study's conclusions and decision to move

forward in adopting BWCs. The two findings used to support the decision to move forward in adopting BWCs are based solely off of community and police officer perceptions. Indeed, the Toronto Police Service states that the two main findings indicate that, “Community approval for BWCs is very high and officer approval is high” (Toronto Police Services Board, n.d., slide 16). Now, if the study’s main intention was to determine the value of BWCs through community and officer perceptions, the conclusions might be more justified – and that is a generous statement considering that a single study on community and officer perceptions should never serve as a catalyst for determining service-wide implementation of BWCs. However, this study intended to assess the benefits and drawbacks of BWCs using an outcomes-based approach and failed to produce any evidence in relation to the impact of BWCs. As previously stated, the study was not able to draw any conclusions on the impact of BWCs on public complaints, officer conduct, special investigations and court proceedings. In addition to the lack of significant results, the way the findings are communicated in the report is misleading. While the majority of officers supported the use of BWCs (58%), this does not necessarily indicate a high level of support. There is a substantial number of officers (42%) who do not support the future use of BWCs and the conclusions do not accurately capture this. Despite the study’s methodological limitations, the Toronto Police Service is moving forward in acquiring BWCs and is currently issuing a non-binding request for proposals from BWC manufacturers.

2.9 Technological Frames of Reference Framework

The use of theory is largely absent in existing research on police officer perceptions of BWCs. Only a single dissertation submitted to George Mason University in Virginia by Marthinus Koen (2016) uses a theoretical framework to investigate police officer perceptions of BWCs; that being the TFR framework. Other than a single dissertation, studies investigating police officer perceptions of BWCs do not use theoretical perspectives. Both the Toronto (2016)

and Edmonton (2015) studies examined officer perceptions of BWCs as part of broader program evaluations that sought to answer questions about the efficiency and effectiveness of using BWCs. For reasons not mentioned in the final reports, theory was not used to guide their methodological approach or analysis. However, one might reason that the outcome-focused and applied nature of the studies could have contributed to the absence of theory.

The remaining studies on officer perceptions of BWCs in the United States also lack theoretical foundation. In their study on Orlando police officer perceptions of BWCs, Jennings and colleagues (2014) sought to understand officer perceptions across a series of perceptual domains but did not use any theory to guide their methods and analysis. Ready and Young (2015) hypothesized that officers will be more likely to report BWCs as more helpful “if they were in the treatment group assigned to wear a camera” (pp. 448); however, this claim was supported by existing literature rather than theory. Finally, Janne and colleagues (2016) attempted to build on existing research by examining officer perceptions across three police departments but did not use any theoretic perspectives to inform the design of their study. Indeed, researchers have failed to apply broader sociological and criminological theories to explore officer views of BWCs. Consequently, the research findings from these studies provide less insight into how officers construct their perceptions of BWCs and how this impacts their choices regarding its use.

In order to address the theoretical shortcomings of the existing research, this study relies on Orlikowski and Gash’s (1994) TFR framework to understand police officer perceptions of BWCs in the Toronto Police Service. The TFR framework provides a socio-cognitive framework for understanding how human beings perceive technology and how this translates to their use of that technology (Orlikowski & Gash, 1994). While the TFR framework has only been applied to a single study on officer perceptions of BWCs, it has been used in multiple studies on officer perceptions of other technologies and their functionality. For example, Sanders and Henderson

(2013) used the TFR framework to investigate patrol officers' use of information technologies including the police CAD systems, Record Management Systems and mobile data terminals. In a more recent study on IT systems and related analytic technologies, Lum, Koper and Willis (2016) also applied the TFR theory to determine, amongst other goals: "Did personnel share similar perspective on technology's role and functions across different assignments and ranks? And to what extent did perspective on technology and experiences with technology overlap or vary across organizational contexts?" (pp. 140).

By drawing on the work of Orlikowski and Gash (1994), the present study will be able to explain three main areas that are crucial for addressing the study's research goals. First, this study will be able to explain the meanings and values officer's attach to BWCs. Building on the work of Orlikowski and Gash (1994), Chan (2001) argues that, "Technology should not be seen as consisting of a physical, material dimension only; rather, technology operates in a social context and its meaning is perceived differently by people in different social and organizational positions" (pp. 143). As such, BWCs will be understood in accordance to the perceptions of officers in the present study while recognizing that this group is only one of multiple social contexts (Chan, 2001; Orlikowski, 2000; Orlikowski & Gash, 1994). Second, the present study will be able to explain how officers' technological frames impact their choices around the use of BWCs (Orlikowski & Gash, 1994). Third, this study will be well-suited to assess the congruence/incongruence in frames held by officers in various positions with specific regard to area of deployment, rank and race (Orlikowski & Gash, 1994; Davidson, 2006)

Finally, the present study will address some of the limitations associated with previous studies on officer perceptions of BWCs. First, it will allow me to identify the sources that inform the officers' perceptions and use of BWCs. Second, rather than reproducing existing knowledge, the TFR framework will enable me to explore the values, assumptions and expectations held by

each officer and how these elements construct their perceptions of BWCs and guide their behaviour around its use. Finally, I will be able to better understand the creation of meaning and how this impacts individual's use of technology, ultimately contributing to our existing knowledge of the TFR framework. Given the importance of this theoretical framework, I will begin by discussing the social cognitive research that informed its development. Then, I will explain the basic tenants of the TFR theory followed by a short discussion of the benefits and limitations associated with its theoretical and practical application.

2.9.1 The Concept of Frames

Drawing on early social cognitive research (Berger & Luckmann, 1967; Smircich & Stubbart, 1985; Weick, 1979), the TFR framework rests on the basic premise that, “people act on the basis of their interpretations of the world, and in doing so enact particular social realities and endow them with meaning” (Orlikowski & Gash, 1994, pp. 176). The idea that people act based on the meanings they attach to particular social realities stems from symbolic interactionism—a sociological perspective that is derived from the philosophy of pragmatism (Charon, 2010). Pragmatists believe that individuals acquire knowledge through ongoing interaction and interpretation of their environment while also constructing and acting out their identities and roles in accordance to their interpretations (Charon, 2010). Therefore, human beings continuously adapt to changing environments and reconstruct their viewpoints and actions accordingly (Charon, 2010).

During the early twentieth century, George Herbert Mead was the first pragmatist to develop the social interaction theory which submits that when individuals engage in symbolic interaction, they interpret each other's gestures and actions by endowing them with meaning through the use of symbols, language and particular vocal gestures (Blumer, 1966). During this exchange, mutual understanding between individuals is achieved when particular gestures have

the same meaning for both parties (Blumer, 1966). This allows individuals to anticipate their own responses and the responses of others so that they are constantly readjusting their intentions, attitudes and actions (Blumer, 1966). This process is not static but rather constantly evolving as it is reinforced by ongoing interpretation and continued confirmation from others (Blumer, 1966).

Herbert Blumer, a student of Mead, used the social interaction theory to develop his own theory of social interaction; namely symbolic interactionism. Similar to Mead, Blumer (1969) believed that human beings act in accordance to the meanings they attach to physical objects, people and particular social realities. As individuals interpret the responses they receive from others, the meanings they construct begin to develop and change over time (Blumer, 1969). While Mead argued that meanings are the result of social interaction, Blumer (1969) believed that meanings are developed through the process of interpretation which then shapes action.

Early social cognitive research (Berger & Luckmann, 1967; Smircich & Stubbart, 1985; Weick, 1979) used tenants of symbolic interactionism to explain how people's interpretations of things and social realities shaped their actions toward it. From there, the concept of frames was introduced to conceptualize individual's interpretations and meanings (Gioia, 1986). According to Gioia (1986), individual interpretations are complex and informed by various values, beliefs, experiences and assumptions that are stored in "repository-like frames" (Gioia, 1986). Frames or frames of reference refer to "definitions of organizational reality that serve as vehicles for understanding and action" (Gioia, 1986, pp. 56). They include knowledge, expectations, and assumptions of various aspects of social life and are expressed through language, metaphors, stories and visual images (Gioia, 1986). Borrowing from the concept of "schema" from cognitive psychology, an individual's frame of reference acts as a "built-up repertoire of tactic knowledge" that is used to attach meanings to various aspects of social life and foster an understanding of otherwise ambiguous situational information (Gioia, 1986). Frames are not fixed but rather

flexible in structure and content meaning that they change over time according to context (Gioia, 1986). By shaping individual interpretations, frames also serve as a basis for taking action (Gioia, 1986; Moch & Bartunek, 1990; Weick, 1979), meaning our frames significantly influence the type of action we take in various social situations.

The TFR framework also draws on recent literature in organizational behaviour which extends the idea of individual frames to groups and organizations. The literature suggests that while members of a particular group hold individual interpretations, they also share a common set of beliefs and values (Porac, Thomas & Baden-Fuller, 1989; Dougherty, 1992). Indeed, the literature acknowledges the strong impact that group or departmental membership has on the particular systems of norms which members are exposed to, thus creating differences and similarities amongst different members of groups (Dougherty, 1992). This idea has also been adopted in research on organizational cultures which argues that people tend to share the same viewpoints with people whom they share a close working relationship (Gregory 1983; Riley 1983; Strauss, 1978). Specifically, Orlikowski and Gash (1994) borrow the concept of shared frames from Wittgenstein's (1953) notion of family resemblance where individuals are said to share a frame if there are some similarities amongst core cognitive elements; namely their assumptions, knowledge and expectations.

Finally, while the concept of technological frames is rooted in social cognitive research that draws on symbolic interactionism, Orlikowski and Gash (1994) also draw on literature that explores the social constructions of technology (Bijker, 1987, Bijker et al. 1987; Henderson 1991). The literature suggests that while people form frames in relation to the technological artifact itself, they also consider the various contexts of its design and use. The contextual dimension emphasized in this research is particularly significant for Orlikowski and Gash (1994) as they consider the technological artifact and the contexts of its design and use as key aspects of

technological frames.

2.9.2 Technological Frames of Reference

Researchers began applying the concept of frames to technology approximately forty years ago when Bostrom and Heinen (1977) suggested that many of the social implications associated with the use of information systems were due to the frames of reference held by system designers. Several years later, Ginzberg (1981) found that user expectations of a pending information system significantly shaped their feelings, views and attitudes toward it. Shortly after, Dagwell and Weber (1983) suggested that the values and views held by system designers and users considerably impacted system development. Since these studies were undertaken, researchers have acknowledged the importance of analyzing the perceptions and values of designers and users when investigating the social aspects of technology.

While a cognitive thread runs through information system research, Orlikowski and Gash (1994) argue that this has not led to a “systematic articulation of the role of frames of reference in systems development and use” (pp. 174). In order to address this, Orlikowski and Gash (1994) developed the TFR framework to provide a socio-cognitive framework for understanding the role of frames in the use and development of technology. Specifically, it provides a conceptual framework for understanding people’s interpretations of technology which is crucial for understanding their interaction with it (Orlikowski & Gash, 1994). I will briefly explain the basic tenants of the TFR framework before discussing the conceptual framework used to understand the role of frames in technological use and development.

Drawing on Weick’s (1995) concept of sense-making, Orlikowski and Gash (1994) argue that to interact with technology, people engage in a “sense-making” process where they “develop particular assumptions, expectations and knowledge of the technology” (1994, pp. 175). This process is characterized by an individual’s ongoing interaction with and interpretation of

technology which leads to their subsequent action towards it (Orlikowski & Gash, 1994). Hence, a person is constantly forming assumptions, expectations and knowledge of a particular technology as long as they engage in continued interaction and interpretation. This process, identified by Orlikowski and Gash (1994) as “technological frames of reference” is defined as:

“the subset of members’ organizational frames that concern the assumptions, expectations and knowledge they use to understand technology in organizations. This includes not only the nature and role of the technology itself but the specific conditions, applications and consequences of that technology in particular contexts” (pp. 178).

Technological frames are comprised of structure (i.e. categories of frames) and content (i.e. values on categories of frames) (Orlikowski & Gash, 1994). For example, frame structure might include: user-friendliness, technological functions and benefits of a particular technology. On the other hand, frame content might include: easy navigation between functions, unsatisfactory performance when internet connection is slow, and processes information quicker than other devices. Frames are flexible in structure and content meaning that they change over time according to context (Orlikowski & Gash, 1994).

Drawing on socio-cognitive research (Poract et al., 1989; Dougherty, 1992), Orlikowski and Gash (1994) suggest that while technological frames are individually held, they share common elements and values with similar groups in an organization. Therefore, understanding the context in which frames are constructed is crucial for identifying mutual knowledge and use of a particular technology (Orlikowski & Gash, 1994). This is particularly important since collective interactions and understandings are intrinsic to understanding the role of technology in organizations as well as any congruence amongst members’ technological frames (Orlikowski & Gash, 1994). The notion of frame congruence/incongruence is of particular significance for Orlikowski and Gash (1994). While they recognize that individual frames reflect individual constructions, it is useful to distinguish core cognitive element since “it is these collective

cognitive elements that individuals draw on to construct and reconstruct their social reality” (pp. 178). Given its importance, I will discuss the notion of congruence in more detail here.

Drawing on Wittgenstein’s (1953) notion of family resemblances and Finney and Mitroff’s (1986) concept of cognitive consensuality, Orlikowski and Gash (1994) define congruence in technological frames as the “alignment” of frame structure (i.e., categories of frames) and frame content (i.e. values on categories) amongst individuals and groups. Hence, a reasonable amount of implicit agreement amongst key categories and attitudes is necessary for individual frames to be considered congruent (Orlikowski & Gash, 1994). For example, police officers who are considered to have congruent frames might identify video and audio as key functions of BWCs. At the same time, these officers also share similar attitudes towards these functions by claiming that the video and audio was clear, consistent and effective. Hence, these officers share similar frame structure (i.e. functions of BWCs) and frame content (i.e. values on functions of BWCs).

Just as individual frames can experience congruence, they can also experience incongruence or in other words, difference or disagreement (Orlikowski & Gash, 1994). Drawing on Pinch & Bijker (1987), Orlikowski and Gash (1994) suggest that technology can be interpreted differently by social groups depending on their interaction with a particular technology, leading them to form contrasting interpretations. These interpretations are shaped by several group characteristics such as hierarchy, responsibilities in connection to a certain technology, and job experience. Orlikowski and Gash (1994) draw on Zuboff’s (1988) case studies to illustrate how groups within a single organization can experience incongruence in technological frames. The case studies showed that managers were unaccepting of new information technology that would increase workers’ authority and autonomy whereas users were more welcoming of the perceived benefits that included minimized supervision and oversight.

Zuboff (1988) also observed that the managers' frames were deeply rooted in traditional managerial and workplace values, ultimately leading to incongruence between managers' and users' interpretations and interaction with the same technology. According to Orlikowski and Gash (1994), incongruence in technological frames can lead to problematic implementation and use of technology such as noncompliance, breakdown in communication and misuse. Applying this to the present study suggests that BWCs can be interpreted differently by sub-groups within police organizations, and therefore affect the way officers understand and use BWCs. This can potentially lead to challenges around the development, implementation and use of BWCs.

As a last point on congruence, Orlikowski and Gash (1994) also recognize that frames can be internally inconsistent. While individual frames typically reject knowledge that does not align with their system of meaning, they can also include information that is incorrect, ambiguous or in conflict with existing interpretations (Orlikowski & Gash, 1994). For example, some police officers might believe that BWCs will improve police transparency and accountability. At the same time, they might also believe that it is difficult to turn the cameras on when they are engaged in a hot-pursuit with a suspect. Hence, these officers are likely to promote the benefits of BWCs without actually changing their behaviour. Orlikowski and Gash (1994) argue that these inconsistencies can lead to flawed understandings and use of technology.

Indeed, technological frames strongly mediate the impact of technology on projected outcomes (Orlikowski & Gash, 1994). According to Orlikowski and Gash (1994), "Technological frames have powerful effects in that people's assumptions, expectations, and knowledge about the purpose, context, importance, and role of technology will strongly influence the choices made regarding the design and use of those technologies" (pp. 179). Therefore, identifying and describing technological frames becomes crucial for understanding the link between users' perceptions of a particular technology and the projected outcomes of that technology. Finally,

Orlikowski and Gash (1994) argue that first impressions of technology are particularly important as they tend to have lasting effects on how individuals interpret and interact with technology. This suggests that technological frames are reinforced by continued interaction with technology and the opportunity for change diminishes soon after initial interaction.

2.9.3 Three Domains

After conducting a field study on the integration of a new groupware product within a large professional services firm, Orlikowski and Gash (1994) identified three domains that characterized the interpretations of the participants. From these observations, Orlikowski and Gash (1994) developed a conceptual framework consisting of three categorical domains to investigate and analyze people's interpretations of and interactions with technology. These include: nature of technology, technology strategy, and technology-in-use (Orlikowski & Gash, 1994). While the domains clearly overlap and are not independent, they will be explained separately in order to ensure clarity. Nature of technology refers to people's understanding of the capabilities and functionality of a technology (Orlikowski & Gash, 1994). Consider the previous example on congruent frames amongst police officers who viewed video and audio as key functions of BWCs. Additional functions of BWCs might include video footage categorization, viewing the video footage in real-time and recording capabilities (Boyd et al., 2015). Technology strategy refers to people's understanding of their organization's motivation and decision to adopt the technology and its likely value to the organization (Orlikowski & Gash, 1994). For example, police officers might believe that their police service adopted BWCs to improve police transparency, protect officers from false complaints and develop more sophisticated methods for collecting evidence. Finally, technology-in-use refers to people's understanding of how the technology will be used on a day-to-day basis and its likely benefits and limitations in various

contexts of use (Orlikowski & Gash, 1994). For example, officers might consider the camera's evidence-gathering capability as a benefit and the removal of officer discretion as a limitation.

The impact of technology on organizations can then be explained in terms of the existence of congruence or incongruence across the three categorical domains that make up an individual's technological frames of reference (Orlikowski & Gash, 1994; Chan, 2001). Where incongruent technological frames exist, challenges with introducing and implementing technology are likely to ensue (Chan, 2001). For example, Orlikowski and Gash (1994) suggest that this can lead to inconsistent buy-in from individuals and possible resistance to its implementation. This can also lead to slower adaptation, misuse of the technology as well as a lack of motivation in using the technology to its potential (Orlikowski & Gash, 1994). Therefore, it is the combination of analyzing the three categorical domains and the existence of congruence or incongruence that allows researchers to understand the development and use of technology.

2.9.4 Benefits and Limitations

Orlikowski and Gash's (1994) article has been cited extensively across a variety of disciplines to articulate the importance of the interpretive processes related to the development and use of technology (Davidson, 2006). Subsequent empirical research has used the three domains presented in the TFR framework to examine frame structure and content related to different technologies in various organizational settings (Davidson, 2006). These studies typically use the TFR framework to explain sense-making, technological and organizational outcomes, managerial decisions, the consequences of frame incongruence, and framing as an interpretive process (Davidson, 2006). For example, several researchers applied the three generic domains to develop unique categories that emerged from the context of their data and analysis. Barrett (1999) and Davidson (2002) developed domains that characterized organization members' understanding

of how information technology could be used to change business relationships and processes. Similar to Orlikowski and Gash's technology-in-use category, Lin and Silvia (2005) developed domains that reflected organization members' expectations around how work practices would change with the use of technology. Several other researchers developed unique and rich descriptions of frame content when exploring specific technologies (Walsh, Henderson & Deighton, 1988; Kilduff, Angelmar & Mehra, 2000).

The TFR framework has also been extended to research on technology in policing. Manning's (1992a, 1992b, 2008) ethnographic work suggests that people's interpretations and interactions with technology are shaped by the existing structures and cultures in policing, which have remained consistent despite the introduction of new technologies. In particular, Manning identifies the reactive nature of policing, otherwise known as the "standard model" of policing, as a strong cultural aspect that influences the development of technological and organizational frames. Other researchers (Sanders & Henderson, 2013; Sanders, Weston & Schott, 2015) agree that technological frames shaped by this model strongly influence the use of technology and therefore, the outcomes associated with technology. Ioimo and Aronson (2004) present a similar idea and suggest that technology is interpreted in accordance to policing's existing frames and not the other way around. They argue that officers fit technology use and expectations to their daily tasks, which primarily reflect activities associated with the standard model of policing that is characterized by reaction and arrest (Ioimo & Aronson, 2004). If officers do not view a particular technology as related to their daily tasks, their use of that technology can be problematic (Ioimo & Aronson, 2004). Lum and colleagues (2017) argue that these observations are especially important for understanding new technologies in today's policing context. In discussing new technologies, they argue that while adopting BWCs might improve certain aspects such as the apprehension of criminals, they might not be able to achieve the intended

goals without the existence of congruent technological frames.

Indeed, investigating the social nature of technological frames provides several benefits for understanding the development and use of technology. First, it provides insight into the collective interpretations of technology as well as internal inconsistencies within groups and individuals (Orlikowski & Gash, 1994). Second, it provides insight into how people perceive and respond to a particular technology and how this translates to their resistance or acceptance toward it (Orlikowski & Gash, 1994). More generally, investigating technological frames allows for a more insightful understanding of how technologies are developed, used and modified in organizations (Orlikowski & Gash, 1994).

Despite the benefits of using the TFR framework to understand the development and use of technology, there are important limitations to consider. Given the interpretive processes linked to TFR research, studies that employ this framework typically involve field research, in-depth case study design and qualitative data collection (Orlikowski & Gash, 1994). Davidson (2006) argues that these studies can be particularly time consuming without actually producing “interesting research findings if the phenomena of interest do not develop at the site” (pp. 35). TFR studies also rely on “retrospective sense-making” to understand technological and organizational change over time when longitudinal studies are not feasible (Davidson, 2006). Davidson (2006) argues that a retrospective explanation of technological failures due to the framing process is less satisfying to organization members’ than managing this process. Davidson (2006) also argues that the TFR framework is yet to reach its potential as a theoretical perspective on technology use and development. According to Davidson (2006),

“Each TFR study stands more or less alone, providing deep insights on the organizational case studies reported. Such studies produce a theoretically informed interpretation of the research context which one form of general knowledge, but they

are not conducive to building a cumulative base of empirical findings or cross-case comparisons, which could facilitate articulation of general TFR theory” (pp. 25).

To address this limitation, Davidson (2006) suggests three measures for refining the TFR framework. First, researchers should direct their attention to the “characteristics and consequences” of frame structure rather than frame content. While frame content is specific in context, frame structure can be conceptualized in a way that can be applied to various cases. Second, research that explicitly investigates framing as an interpretive process could expand the TFR framework beyond the issue of frame incongruence to the study of frame structure and interpretive power. Finally, Davidson (2006) suggests investigating the cultural and institutional aspects that inform people’s frames as it would provide a broader contextual basis for analyzing IT-related organizational change.

It is also important to note that by using the TFR framework, the present study does not draw on theories regarding the reproduction of policing as an institution within capitalist society or issues of race and class, which have significantly shaped the introduction of BWCs (White, 2014). While the application of such theories and constructs in future studies is essential to developing a more sophisticated understanding of police officer perceptions of BWCs, this would require a more nuanced understanding of officer perceptions to effectively guide the research design and analysis. As it stands, the existing literature on officer perceptions is underdeveloped and limited, largely due to the lack of theoretical consideration and application. As such, the present study uses the TFR framework to provide an exploratory and preliminary understanding of how officers perceive BWCs and the sense-making process used to arrive at these perceptions. Once this baseline understanding of officer perceptions and sense-making is achieved through theoretical application, only then can research situate these findings in broader theoretical frameworks and constructs.

2.10 The Present Study

The motivations for the present study are two-fold: first, the present study seeks to build on the TFR framework and second, it attempts to address the empirical shortcomings in the existing literature. Given what we know about the TFR framework, it is important to examine users' technological frames in order to understand and assess the outcomes of a particular technology (Orlikowski & Gash, 1994). As previously mentioned, people develop assumptions, expectation and knowledge about a particular technology as they interpret and interact with that technology (Orlikowski & Gash, 1994). Their interpretations are then stored in technological frames that are comprised of three categorical domains (Orlikowski & Gash, 1994). Individuals' technological frames strongly impact their choices around a particular technology and its successful integration into an organization (Orlikowski & Gash, 1994). It is for this reason that the present study acknowledges that individual's perceptions should warrant scientific investigation.

The existing literature on BWCs also recognizes that understanding officer perceptions is imperative for the success of any BWC program (Edmonton Police Service, 2015; Janne et al., 2016). Indeed, assessing officer perceptions of BWCs reveals important insight into officer buy-in which strongly influences the degree to which BWC benefits are operationalized such as transparency and improved officer behaviour (Janne et al., 2016). Despite that the existing literature acknowledges the importance of understanding officer perceptions, there is a lack of qualitative data examining the perceptions of front-line officers (Pelfrey Jr & Keener, 2016). Indeed, the majority of perception studies use questionnaires to understand officer perceptions of BWCs. Consequently, officer perceptions are limited to pre-determined responses that are developed by survey administrators and not officers themselves. Further, the studies that did use interviews in addition to questionnaires typically did not ask questions that reach beyond

situational and technical matters, thereby limiting our understanding of the social significance of BWCs. Finally, the majority of perception studies produced research findings on how officers perceive the conditions and consequences associated with the use of BWCs but less on how officers understand the capabilities and functionality of BWCs as well as the motivations that led to their adoption. In order to build on the TFR framework and address the empirical shortcomings in the existing literature, the present study poses the following research questions:

- 1) How do police officers understand the capabilities and functionality of BWCs?
- 2) How do police officers understand the motivation(s) or decision to adopt BWCs?
- 3) How do police officers understand how BWCs will be used on a day-to-day basis and the likely conditions and consequences associated with their use?

By investigation the aforementioned research questions, the present study seeks to achieve three primary research objectives. First, the present seeks to investigate the sense-making process used by officers to construct their perceptions in order to better understand how officers arrive at their viewpoints. Second, the present study will assess for both internal and external incongruence in order to better understand the inconsistencies amongst officer's technological frames. Lastly, the present study seeks to better understand how officer's perceptions affect officer use of BWCs.

Chapter Summary

In this chapter, I introduced the context from which BWCs emerged and discussed the existing impact and perception studies on BWCs. Then I discussed the Toronto Police Service pilot project on BWCs followed by a discussion on the considerations and consequences associated with the use of BWCs. From there, I discussed the TFR framework (Orlikowski & Gash, 1994) used in the present study to understand officer perceptions of BWCs before providing an explanation of the research objectives of the present study.

Chapter 3: Did it affect me?: Methodology

In this chapter, I discuss the methods used to understand police officer perceptions of BWCs in the Toronto Police Service. I begin by providing an explanation for why these methods were chosen followed by a discussion on the strengths and limitations associated with these methods. Then, I present the data collection and analysis processes. To conclude, I discuss the ethical considerations that were recognized prior to the commencement of the study.

3.1 Methodological Approach

Grant and Osanloo (2014) argue that the researcher's theoretical framework must guide the study's methodological approach and design. In accordance with this claim, this study relies on the TFR framework to determine the methods used to understand police officer perceptions of BWCs in the Toronto Police Service. Drawing from earlier research on information systems (Bostrom and Heinen, 1977; Ginzberg 1981; Goodman et al. 1990), the TFR framework submits that the social nature of technological frames can be better understood by delving into deeply held assumptions, expectations and knowledge of that technology (Orlikowski & Gash, 1994). The idea that knowledge can be generated by uncovering the meanings held by an individual is consistent with the constructivist or interpretivist approach (Guba & Lincoln, 1994). This approach has strongly influenced the methods used to understand the impact of technological change in organizations due its emphasis on the participatory role of organizational members and the importance of social context and constructed meanings (Chan, 2001). Indeed, Orlikowski (2000) suggests that, "...social constructivist research examines how interpretations, social interests and disciplinary conflicts shape the production of a technology through shaping its cultural meanings and the social interactions amongst relevant social groups" (pp. 405).

This approach embodies a relativist ontology, whereby social realities exist in the form of multiple intangible mental constructions that are both local and specific in nature (Guba &

Lincoln, 1994). Human beings develop mental constructions when they attach subjective meanings to various aspects of their lives (Guba & Lincoln, 1994). These meanings vary according to different social contexts and are constantly changing as the constructions become more sophisticated (Guba & Lincoln, 1994). As such, human social life is based less on objective “hard” facts and more on feelings, ideas and perceptions that people hold about reality (Guba & Lincoln, 1994). Stated differently, what people believe to be real is more insightful than what is “objectively” real (Guba & Lincoln, 1994). Similar to other research that uses the TFR framework to explore police officer perceptions of technology (Lum et al., 2017; Sanders & Henderson, 2013) this study does not assume that the officer’s views in this study reflect a single objective reality. Instead, the officer’s accounts are treated as multiple constructed realities that are specific to their perceptions and experiences. Therefore, while reoccurring constructions will appear to create consensus amongst officers, this does not suggest that these constructions make up the “ultimate truth”.

In line with constructivism, this study investigates officer perceptions of BWCs through the use of a transactional and subjectivist epistemological approach (Guba & Lincoln, 1994). In this approach, the researcher and research subjects are assumed to be “interactively linked” in a process of investigation where the findings are “*literally* created” through interaction (Guba & Lincoln, 1994, pp. 111). Therefore, the personal nature of this approach implies that social constructions can be elicited only through dialectic transactions between the researcher and research participants (Guba & Lincoln, 1994). By directly speaking to research participants, this epistemological approach allows the researcher to investigate the deeper meanings, assumptions and expectations held by the individual (Hammersley, 2013).

In order to describe the meanings that individuals attach to technology, proponents of the TFR framework rely heavily on qualitative or naturalistic methods including, in-depth interviews

Orlikowski & Gash, 1994). Orlikowski and Gash (1994) argue that a qualitative approach facilitates a stronger understanding of how individuals interpret new technology and their actions around it. More recent research on police officer perceptions of technology (Lum et al., 2017; Sanders and Henderson, 2013) also recognizes that contextual and qualitative analyses of policing and technology integration are needed to acquire a stronger understanding of its use and value. In line with constructivists, proponents of qualitative research argue that human behaviour and perceptions cannot be understood without investigating the meanings, purposes and feelings attached by human beings to their constructions (Bell, Bryman & Teevan, 2012). As such, qualitative research typically rejects the use of traditional positivist models in social research and replaces them with methodologies that seek to understand how individuals perceive their social world (Bell, Bryman & Teevan, 2012). These naturalistic methods not only provide rich insight into individual perceptions but also the contextual background from which they emerged (Best, 1995).

The current research that attempts to explore police officer perceptions of BWCs is limited in its ability to provide rich insight due to the use of experimental or quasi-experimental designs. Structured methods such as closed-ended surveys, structured interviews (Ready & Young, 2015) or content analysis of field contact reports (Jennings et al., 2014) provide a limited opportunity to describe the deeper meanings that officers attach to BWCs. Even when officers engage in more open-ended interview questions such as in the Edmonton Police Service (2015) and Toronto Police Service (2016) studies, the interview questions are more technical and situational which limits how officers reflect on and share their perceptions. While BWCs are a practical technological tool, it would be naïve to underestimate the social significance of equipping frontline officers with this technology. The current methods used in existing research may be useful for eliciting responses that consider the practical elements of BWCs; however they

fail to go beyond surface-level thinking. Given the ontological and epistemological assumptions associated with the constructivist approach, this study investigates officer perceptions using semi-structured, in-depth interviews. By engaging in a dialectic method, this study provides rich and in-depth information on how police officers perceive BWCs as well as the contextual information that informs their perceptions.

3.2 Method of Data Collection: The Semi-Structured Interview

Orlikowski and Gash (1994) suggest that the best way to investigate human perceptions of technology is to collect data by stimulating discussion around its meanings and expectations through focus groups or in-depth interviews. Specifically, the semi-structured format is the most commonly used interview technique in qualitative research due to its versatility and flexibility (Kallio, Pietila, Johnson, Kangasniemi, 2016). As such, this study uses semi-structured in-depth interviews to delve into how officers perceive BWCs. Semi-structured interviews were chosen over focus groups because it allows officers to share their experiences and perceptions without the fear of being judged by another officer in the room. It also facilitates officer confidentiality and anonymity; the two ethical concerns most commonly raised by police officers interviewed in this study.

Hammersley (2013) argues that in recognizing that people's experiences and perspectives are more complex and interesting than what is generally accredited, it is worthwhile to document them in detail in order to understand their actions and thoughts. With semi-structured interviews, the researcher and research participants engage in a dialectic process where they share and reflect on the rich details that inform their social constructions (Guba & Lincoln, 1994). One of the main advantages of semi-structured interviews is that it enables reciprocity between the researcher and research participants, thereby allowing the researcher to improvise new questions throughout the interview process (Kallio et al., 2016). During the interviews with officers, the semi-structured

format allowed for a more flexible and natural conversation to ensue as I was able to vary the order of the questions and pose new questions when appropriate. The open-ended nature of the questions also allowed the officers to explore themes that I may have not otherwise addressed. It also enabled me to probe officers about interesting topics relating to my theoretical framework and research questions.

Semi-structured interviews are also found to be successful in fostering space for participants' individual verbal expressions (Kallio et al., 2016). This space is useful for uncovering the contextual elements that impact how individuals create their constructions. Consistent with contextual constructivism (Best, 1995), this study recognizes that various elements will have an impact on how individuals create new constructions such as: emotional attachments, beliefs and value system, religious or moral ideas and gender differences (Best, 1995). For example, an officer who views police surveillance negatively due to the belief that it generally targets black individuals might perceive cameras differently than an officer who views surveillance favourably due to the belief that it reduces police use of force against black individuals. Semi-structured interviews allow officers to discuss these specific elements which then help to uncover the contextual background that informs their perceptions.

As mentioned above, surveys or structured interviews are not nearly as effective in capturing in-depth and detailed officer accounts. These methods inhibit the officer's ability to effectively communicate their thoughts beyond the confines of pre-determined and fixed responses. For example, in a hypothetical survey administered to police officers, the first question might read, "On a scale of 1-10 how comfortable are you using BWCs?" The next question might read, "On a scale of 1-10 how effective do you think BWCs will be in improving police-community relationships?" This approach simply reduces the officer's perceptions to a numerical value and consequently, offers very limited insight. It is nearly impossible to understand why the

officer responded with the number that he or she chose. Structured interviews also provide less insight into officer perceptions because they restrict the officer's ability to discuss areas that fall outside of the pre-determined questions. Consequently, this severely limits our understanding of how police officers perceive and use BWCs. Semi-structured interviews facilitate responses that go far beyond the "yes" or "no" answers that are typically provided in surveys and structured interviews.

While semi-structured interviews are the most suitable method of data collection for this study, there are important limitations to consider. Understanding people's perspectives is a challenging task in and of itself due to the complexity of people's ability to communicate and perceive individual expressions (Hammersley, 2013). As Hammersley argues (2013), it is not that simple to get people to talk (Hammersley, 2013): the participants might not have a genuine interest in the study; they may not understand why the researcher would be interested in what they could say or they may doubt their ability to contribute something worthwhile to the study. Participants might also gloss over certain questions if they don't understand what is being asked out of embarrassment. Admittedly at times, I was not able to recognize the complexity of my questions. Consequently, officers may have not understood the questions being asked, resulting in incomplete or poorly constructed responses. When I was able to recognize that officers did not understand the question, I rephrased the question until they assured me that they understood what was being asked.

Researchers must also acknowledge or try to overcome their personal and cultural assumptions and how they communicate these assumptions (Hammersley, 2013). During the interview, I may have unknowingly used certain techniques to elicit certain responses from officers including: body language, tone and facial expressions (Chenail, 2011). In recognizing that suspending researcher bias is crucial for encouraging candid accounts of people's

perceptions and experiences, I used a couple techniques to minimize this risk. During the interview, I refrained from using verbal or facial expressions that might insinuate positive or negative reinforcement. I also asked open-ended questions in order to limit the influence of my ideas in the interview process.

There is also a concern that people might not provide authentic accounts of their experiences and perceptions. In the present study, officers may have drawn from other familiar narratives as opposed to their own subjective views (Miller & Glassner, 2004) including: media stories, existing research, or the views of the Toronto Police Service. Officers may have also unintentionally or intentionally lied in order to protect their organization or their position in the police service. Officers may have also felt the need to provide socially-desirable responses which could have led to inaccurate representations of their thoughts (Hammersley, 2013). The hyper-masculine culture in policing (Wozniak & Uggen, 2009) may have also led officers to conceal certain views or feelings that would paint them as “soft”, emotional or weak. Finally, Miller and Glassner (2004) argue that the social position of the researcher can impact the type of responses that are constructed throughout the interview process. I recognize that I am a young, white, female, Master’s student who does not share membership with officers in the police culture. This is a stark contrast to the officers that I was interviewing who are middle-aged, male, and deeply immersed in the police culture. Consequently, officers may have refrained from sharing certain thoughts or experiences if they viewed me as an “outsider”.

While it is difficult to determine the authenticity of officer accounts during the interview, I consciously used a couple of techniques to minimize the risk of acquiring untruthful claims. Referred to as the humanistic method (Alasuutari, 1995), researchers can improve the truthfulness of officer accounts by building rapport (Hammersley, 2013). It is generally thought that if the investigator is able to establish friendly relationships and trust with the respondents,

then the respondents will also be honest with the investigator (Alasuutari, 1995). I built trust and rapport with the officers by being up-front about my research intentions and sharing more about myself. At the beginning of each interview, I went over my research project in detail and reassured them that the interview is intended to be conversational and informal. I answered any questions or concerns they had at that point. Then, I spent a few minutes simply trying to get to know each other. The conversation was personal and relaxed. I noticed the officers began to appear more comfortable as they started to get an idea of who I am and could relate to certain aspects of my life. It is worth noting that the humanistic method embodies an underlying assumption that respondents actually possess truth and the only problem is the researcher's ability in making them tell it (Alasuutari, 1995). The humanistic method typically considers "heart-pouring", confidential conversations as more valuable than dishonest, small conversation. It misses the point that dishonesty in itself is compelling data (Alasuutari, 1995). If the respondents pretend to be "better" than they are or try to conform to a popular socially constructed realities, this reveals important information about societal and shared values (Alasuutari, 1995). Given the methods used to minimize the risk in acquiring fictitious responses, the testimonies offered by the officers will be considered more or less an honest and accurate description of the officer's social constructions (Alasuutari, 1995).

3.2.1 The Data Collected

The Toronto Police Service is not the first and only police service in Canada to test BWCs and it will certainly not be the last. In recognizing that multiple police services across Canada have already used or are considering using BWCs, I will briefly discuss why this study focuses on officer perceptions in the Toronto Police Service. First, there was an opportunity to conduct an independent and in-depth study with officers who actually used the cameras. While other police services in Ontario such as Ottawa (CBC News, 2016) and Durham (2017) are considering a

BWC pilot project, they are yet to equip their officers with cameras. In recognizing that people make sense of technology by interacting with technology (Orlikowski & Gash, 1994), this study focuses on Toronto police officers because they used BWCs for several months. Second, it is the largest municipal police service in Canada (Toronto Police Service, 2016) with officers working in multiple unique, vibrant and multicultural neighbourhoods. This fosters diverse officer perspectives and experiences. Third, it was feasible in terms of proximity to research participants. Finally, my own personal experiences from living and working in downtown Toronto and the Greater Toronto Area led me to develop a genuine interest in the impact BWCs would have on police officers and the community.

In order to recruit Toronto police officers for interviews, this study used purposive sampling. According to Patton (2002), purposive sampling is a technique used to identify and select information-rich cases for the most effective use of limited resources. This process involves identifying and selecting individuals that are knowledgeable about or experienced with the phenomenon of interest (Patton, 2002). I used criterion sampling, a form of purposive sampling to gather information rich-cases on officer perceptions of BWCs. Criterion sampling is used to narrow the range of variation between research participants and focus on participant similarities (Palinkas, Horwitz, Green, Wisdom, Duan, Hoagwood, 2015). In other words, criterion sampling is the inclusion of certain categories that characterize the potential participants. Individuals who meet the criteria typically possess intimate knowledge about the phenomenon; making them information-rich cases (Palinkas et al., 2015).

The criteria for officer participation in this study had two main purposes. First, it is intended to attract participants who could provide rich and insightful perceptions on the *use* and value of BWCs. For this reason, only officers who participated in the pilot project were interviewed. Second, it attempted to account for the various differences (gender, ethnicity, rank,

area of deployment) that influence varying socially constructed perceptions. For this reason, the study intended to interview both female and male officers, officers that identified as visible minorities, officers that hold a rank of Sergeant or Staff Sergeant, and officers from each area of camera deployment (Traffic Services, TAVIS, 43 Division and 55 Division). All of the criteria were met except for the recruitment of female officers. During the recruitment process, no female officers came forward to participate in the study. I recognize that this is a limitation to understanding officer perceptions of BWCs as female officer perceptions are not accounted for. All police officers who participated in the pilot project were invited to participate in the study via e-mail (see Appendix A). From there, all interested officers who met the criteria were chosen to participate in the study.

Researchers generally agree that phenomenological studies require a minimum of 5 to 6 participants (Morse, 1994; Creswell, 1998; Guest, Bunce, Johnson, 2008) for purposively sampled interviews. This is considered an adequate number for achieving theoretical saturation; often referred to as the gold standard for justifying adequate sample sizes for qualitative research (Guest, Bunce, Johnson, 2008). This study intended to interview a total of 10 officers and was successful in doing so. As mentioned above, all 10 officers were male. A majority of the officers were Caucasian (80 percent) while 2 (20 percent) of the officers identified as visible minorities. Of the officers interviewed, 8 (80 percent) held the rank of Constable and 2 (20 percent) held the rank of Sergeant. Officers were also interviewed from each area where the cameras were deployed including: 4 officers (40 percent) from Traffic Services, 2 officers (20 percent) from TAVIS, 3 officers (30 percent) from 43 Division and 1 officer (10 percent) from 55 Division.

3.3 The Data Collection Process

Kallio and colleagues (2016) argue that researchers should develop a semi-structured interview guide using a five-stage process. During the first stage, the researcher must justify why

the semi-structured interview is the most suitable method for data collection. Since I have already justified the use of semi-structured interviews for this study, I will not repeat the reasons here. In the second stage, the researcher starts to develop an interview guide by retrieving and using previous knowledge on the subject matter (Kallio et al., 2016). For the present study, I conducted an extensive literature review on BWCs and the TFR framework to brainstorm possible interview questions. In the third stage, the researcher begins formulating the preliminary semi-structured interview guide (Kallio et al., 2016). An interview guide is a list of questions that direct the conversation towards the subject of interest and are intended to be flexible and loose in order to facilitate rich dialogue (Kallio et al., 2016). In order to collect police officers' accounts of BWCs, I developed an interview guide that was directly informed by existing research on BWCs, the TFR framework and the study's research questions. The fourth stage of development is pilot testing the interview guide in order to make adjustments to the interview guide and improve the quality of data collection (Kallio et al., 2016). I engaged in internal testing which is a process where the researcher evaluates the interview guide in collaboration with the investigators in the research team (Kallio et al., 2016). I collaborated with my thesis supervisor, Dr. Michael Kempa, a Senior Planning Analyst at the Toronto Police Service and Inspector Michael Barsky at the Toronto Police Service to evaluate the interview guide. During this process, I removed or changed any ambiguous words or leading questions and highlighted possible researcher bias. In the last and final stage, I completed and finalized the semi-structured interview guide.

The guide included a total of five questions (see Appendix B) that asked officers to reflect on how they understand the emergence of BWCs, the conditions and consequences associated with the technology and the procedure governing its use, the perceived effects, any concerns associated with their use and lastly, the impact they have on their personal and professional life. The interview began with a few introductory questions such as how long they've worked at the

Toronto Police Service, what factors led them to become a police officer, and what they liked and didn't like about being an officer. These questions allowed me to build rapport with the officers and it made the interview feel more relaxed and informal. Then, I began to raise questions about BWCs. The interview questions were intended to be broad and open-ended in order to allow the officer to steer the conversation in a direction that he thought was most relevant or important (Kallio et al., 2016). Since the officers were not restricted in the areas they wanted to discuss, a number of other questions arose throughout the interview. For this reason, the interviews were rather candid and conversational. While all five themes were discussed in detail, each interview was different as it reflected the officer's specific interests and concerns. Many officers noted that they brought up certain things in the interview that they hadn't given much thought to prior to the interview. This positively reflects constructivist values as it indicates that their social constructions became more sophisticated throughout the interview process.

The setting for the interviews was also carefully considered. In order to ensure convenience and comfort, officers were interviewed at their divisional station, except for one who requested to be interviewed at Toronto Police Headquarters. Prior to the interview, all officers were asked to read and sign the consent form. During this time, I reiterated the steps that will be taken to ensure confidentiality and anonymity and answered any questions officers had about the interview process. I will discuss ethical considerations such as confidentiality and anonymity in more detail in the latter section of this chapter. All interviews were audio recorded and transcribed verbatim on Microsoft word and were between 45 minutes to an hour and a half in length, with most lasting one hour. Finally, all identifiers were removed from the transcripts and uploaded to NVivo, a software that enables researchers to analyze qualitative data.

3.4 Method of Data Analysis: Qualitative Content Analysis

Orlikowski and Gash (1994) suggest that qualitative content analysis is the most viable

method for assessing the underlying meanings that people attach to technology. Qualitative content analysis is used to analyze textual data which can also “bring to bear theoretical perspectives”—one of the primary objectives of the present study (Forman & Damschroder, pp. 40). This method allows the researcher to “read between the lines” and assess individual assumptions and expectations similar to how culture researchers interpret symbols and stories (Gash & Orlikowski, 1994). This method is derived from hermeneutics or theories of interpretation. Hermeneutics involves in-depth inquiry and detailed reading into texts (Pascale, 2011). According to Forman and Damschroder (2008), “Qualitative content analysis examines data that is the product of open-ended data collection techniques aimed at detail and depth, rather than measurement” (pp. 41). Therefore, it has a descriptive or exploratory purpose. Further, researchers bring their own subjective meanings to the text to understand the perceptions and meanings people attach to various aspects of their social life (Pascale, 2011). It also reflexive and flexible so that researchers are able to go back and review or develop any codes they missed. In order to acquire rich and in-depth insight into police officer perceptions of BWCs, this study analyzed interview transcripts using qualitative content analysis.

3.5 The Data Analysis Process

The data analysis process was divided into three phases: immersion, reduction and interpretation (Forman and Damschroder, 2008). According to Forman and Damschroder (2008), “During immersion, the researcher engages with the data and obtains a sense of the whole before rearranging it into discrete units for analysis” (pp. 47). Researchers can use several methods to accomplish this. For example, Forman and Damschroder (2008) suggest writing a “comment sheet” after each data collection activity that would include the researcher’s first impressions, ideas for future data collection and general comments. Researchers can also accomplish this by listening to audio-recordings of the data collection activity and reading transcripts several times

(Forman & Damschroder, 2008). During each step, researchers keep memos to record their thoughts, impressions and important points for future consideration (Forman & Damschroder, 2008). For the present study, I kept a reflexive journal to record my thoughts during each step including: immediately after each interview, while listening to the audio-recordings and while reading the transcripts. In the reflexive journal, I described any themes or connections, reoccurring comments made by officers, as well as any internal or external consistencies. This phase helped initiate the data analysis process by allowing me to brainstorm potential codes.

In the second phase, the researcher develops a “systematic” approach to analyzing the raw data. The goals of the reduction phase are to, “(1) reduce the amount of raw data to that which is relevant to answering the research question(s); (2) break the data (both transcripts and memos) into more manageable themes and thematic segments; and (3) reorganize the data into categories in a way that addresses the research question(s)” (Forman & Damschroder, 2008, pp. 48). Codes are developed as a way to categorize and organize the raw data (Forman & Damschroder, 2008). Content analysis typically uses a deductive approach to develop codes, meaning that deductively driven data analysis is drawn from pre-existing theoretical understandings and exploration of the phenomena of interest (Ezzy, 2002). According to Forman and Damschroder (2008), “The more that is known about the topic, the more structured or deductive the data collection and analysis are likely to be.” Orlikowski and Gash (1994) suggest that data analysis should be conducted in reference to the three domains proposed in the TFR framework. However, when appropriate, researchers can simultaneously adopt an inductive approach, whereby codes are directly drawn from the raw data (Orlikowski & Gash, 1994). This study uses a deductive approach to develop categories informed by the TFR framework. However, given the limited research on officer perceptions of BWCs and the exploratory nature of this study, an inductive approach is also used to develop categorical codes.

During this phase, researchers typically begin by developing codebooks (Forman & Damschroder, 2008). Codebooks include a list of distinct and separate codes that are used to categorize the raw data. According to Ezzy (2002), “content analysis begins with predefined categories ...that are developed through logical deduction from the pre-existing theory (pp. 82 - 83).” Gash and Orlikowski (1994) suggest that researchers should begin by including codes that reflect the three domains proposed in the TFR framework. If sufficient evidence for these categories is found, the data can be examined in accordance to the underlying domain they reflect (Gash & Orlikowski, 1994). In line with this approach, I first developed three categories that reflected the three domains proposed in the TFR framework including: capabilities and functions, motivations or decision to adopt, and condition and consequences.

Then, using an inductive approach, I began to develop categorical nodes and categorical child nodes. To do this, I read the texts from the interview transcripts minutely and repeatedly. Upon reading the texts several times, reoccurring concepts, ideas and themes began to emerge allowing me to develop categorical codes. For example, under the category “conditions and consequences” I developed the categorical node “mechanism of control”. After I developed my codes, I recorded them in a codebook which I used to code all the interview transcripts.

Orlikowski and Gash (1994) also suggest that the content of the interviews should be examined for internal consistency and for congruence across groups. To do this, the occurrences are counted and comparisons are made often using quantitative methods (Ezzy, 2002). Using NVivo, I was able to view the frequency of each code in order to determine importance. NVivo also allows researchers to draw comparisons amongst groups. The present study examines similarities and differences amongst officer groups by rank and division.

Orlikowski and Gash (1994) also suggest that the analysis process can be strengthened by validating codes with existing research. They argue that this exercise, “...may serve to facilitate

further discussion, reflection, and articulation of assumptions, meanings and experiences” (pp. 205). For the present study, existing research was used to develop and validate codes. For instance, Ariel’s (2016) study found that officers were concerned that BWCs would be used to monitor officers. This finding validated the present study’s codes including: mechanism of control and counter-sousveillance. Once my codebook was completed and included accurate code names, node types, descriptions and examples, I applied it systematically to my analysis of each interview transcript.

In the final phase, interpretation “involves using the codes to help re-assemble data in ways that promote a coherent and revised understanding or explanation of it (Forman & Damschroder, 2008, pp. 56). To do this, researchers can identify main themes, describe the significance of particular findings and contextualize them within a theoretical framework (Forman & Damschroder, 2008). In the present study, I reorganized the findings, grouped them with relevant findings under different codes, and linked them to similar findings from existing empirical research. Then, I wrote descriptive summaries of each of the major themes and interpreted them in light of broader social issues including police-community relationships and surveillance.

3.6 Ethical Considerations

Since this study involves human beings as the primary data source for understanding human perceptions, the consideration of ethical concerns was intrinsic to the study’s process of investigation. I will note here that prior to the commencement of the interviews, this study was presented to the University of Ottawa Research Ethics board and received approval (see Appendix D). A separate ethics application was submitted to the Toronto Police Service and also received approval, allowing me to interview Toronto police officers for the present study.

Prior to the interview, informed consent was sought from each police officer that

participated in the study. According to Waldrop (2004), the participant's capacity to consent is defined as, "the ability to comprehend information relevant to the decision, consider the choices as they relate to personal values and goals, and communicate with others verbally and nonverbally (pp. 242)." I prepared a consent form that included: (1) a brief description of the study, (2) the identification of the primary researcher (myself) my research supervisor, and the affiliated organization (University of Ottawa), (3) assurance that the participation is voluntary and participation can be terminated at any point throughout the interview, and (4) information about any risks and benefits associated with the present study (Waldrop, 2004). Each police officer read and signed the consent form prior to the interview. During the interview, I reviewed the consent form with the officer and addressed any questions or concerns they had at that point. Each officer was also reminded that their participation was voluntary and could stop the interview at any time. I also reassured the officers that their decision to remove themselves from the study would not affect their position at the police service and they could not be penalized.

As previously mentioned, the two ethical concerns most commonly raised by police officers in this study were anonymity and confidentiality. Understandably, the officers interviewed in this study wanted assurance that they would remain anonymous. Some of the officers asked if they would be quoted in the media or if their names would be revealed in the study. I reassured the officers that no identifiers would be used in the study and pseudonyms would be assigned to each officer. Each officer was made aware that their rank and division would be published to highlight differences amongst groups of officers. While measures were taken to ensure anonymity, there is a risk that quotations can include identifying characteristics. Readers may be able to distinguish certain officers if they are able to recognize specifics from offices' accounts. All of the police officers consented to the use of quotations in this study.

I also ensured that the information provided by each officer remained confidential.

According to Waldrop (2004), “The interviewer will treat the respondent’s participation and communication as completely confidential information, sharing it with no one” (pp. 245). In the present study, I used several measures to ensure confidentiality. First, I stored the audio recordings and transcripts on a password protected computer. I ensured that all documents were password encrypted and only I had access to them. Once the interviews were transcribed, the audio recordings were destroyed. Each officer was also informed that the data will be conserved for five years until December 31, 2023.

Finally, this study carefully considered the potential psychological and emotional risks that officers may experience as a result of their participation. While the interview questions did not touch on sensitive matters, police officers were at risk of experiencing psychological and emotional discomfort. This may have occurred if officers were asked to recall a negative experience or if they shared information that goes against the values of the Toronto Police Service. The interview experience alone may have also caused some discomfort amongst officers. Several measures were taken to minimize the risk of emotional and psychological discomfort. First, the officers were not asked sensitive questions allowing them to choose what information they wished to disclose. Second, officers were given a copy of the questions at the beginning of the interview so they had a sense of what they were going to be asked. This was done with the intention to minimize any anxiety or discomfort officers may have felt from being the subject of the interview. Each officer was also provided with a document that had a list of resources they could access if they wished to seek mental and emotional support. Officers were also reminded that they could refuse to answer any questions that may cause psychological or emotional discomfort. Finally, I ensured that the officers were aware that their copy of the consent form included the contact information of the University of Ottawa’s Research Ethics Board in case they wanted to report any ethical concerns or violations.

Chapter Summary

In this chapter, I discussed the methods used to understand police officer perceptions of BWCs in the Toronto Police Service. First, I provided an explanation for why these methods were chosen followed by a discussion on the strengths and limitations associated with these methods. Then, I presented the data collection and analysis processes. To conclude, I discussed the ethical considerations that were recognized prior to the commencement of the study.

Chapter 4: *We're human too*: Presentation of Findings

In this chapter, I present the study's findings in accordance to the three domains outlined in the TFR framework. These include: nature of technology, technology strategy and technology in-use.

4.1 Nature of Technology

Officers generally perceived BWCs as having a single capability which is the recording of police-citizen interactions. The camera's ability to categorize video footage into types of offences was identified as another capability by the two Sergeants who participated in the study, but wasn't mentioned by any of the Constables. Officers felt that both capabilities were severely hindered by the limited functionality of the devices. For this reason, all of the police officers agreed that the BWCs tested during the pilot project were inadequate. The officers pointed to several technical issues including: battery, hardware, objectivity, video, audio and software. Each of these issues relating to functionality will be discussed in detail in the following sub-sections.

4.1.1 Battery

The technological concern most commonly identified by police officers was the battery life and the inconveniences relating to recharging the batteries. All 10 police officers reported insufficient battery life with both BWC models. Each officer noted that the BWCs would always die before the end of their shifts, with some lasting only a few hours:

The Inspector actually said it best. He said I wouldn't give you a gun and say this is only going to work for 7 hours out of your 10. I need something that works for a whole shift and that's what we need. Right now, the technology is not at a point where the battery life is adequate. We have a 10 hour shift. Many other services have a 12 hour shift. (Damian)

It was not very good on either of the cameras we used. The second one we wore was worse - I can't remember which was the second one. It would last somewhere between 4 to 6 hours. (Jordan)

Several of the officers also mentioned that the batteries deteriorated over the duration of the pilot project:

The batteries also deteriorated a huge amount. So when we did the Reveal cameras first, the battery was pretty good. Lasted almost a whole shift. That's if I wasn't really using it. But still, almost the whole shift but then after the 6 months, the other guys got it and they said they had it for 4 or 5 hours and then it was dead. (Damian)

They were degrading as well. You can tell at the end of the project they weren't as good as the beginning. And we only used them for 3 to 4 months. So if they weren't really good at the beginning, they weren't suitable to release to the service. They were that bad because the battery would be running out even on standby. We do 10 hours shifts. If the guys are on the road for 7 hours of that - that's not even close. (Jordan)

The officers also noted several complications with recharging the batteries. For example, to charge the cameras, they had to sit in a docking station for hours only to reach half of their battery life:

The program, I mean there's got to be a better program. Just the way they had to charge. They'd sit in a docking station at the front desk and it would take like 8 hours for each camera to charge and upload the video to the main server. And for this, the program actually had to be signed in for it to charge and every 5-10 minutes it would go to the screen saver and when it did that it would stop charging. So somebody at the front desk had to keep wiggling the mouse so they had a separate computer just for that. And you'd come in the next day and the cameras would be half charged and then go dead. (Abel)

3 Constables at Traffic Services also noted the inconveniences specific to Traffic officers. Since traffic enforcement requires travelling across a large geographic area, it was inconvenient for officers to travel back to their docking station. Consequently, most of the officers carried replacement batteries with them during their shifts:

My actual docking station is downtown. If I'm out in Scarborough and I'm out of battery and then I do something on the way back then why did you do something on the way back? Why was your camera out or you know? And then they wanted us to bring extra batteries so I mean especially on motorcycle there's not that much room to begin with and now I have to throw on an extra battery. (Jax)

3 of the officers mentioned that police legitimacy may be negatively impacted if police officers can't produce video evidence of a police-citizen interaction due to battery failure.

If we only get 4 to 5 hours of battery life and something happens in 6 or 8 then people are going to think we had some sort of foul play. If I go to activate it in this dynamic situation and it's dead because the battery is dead then they're not going to believe me. They'll think it's a cover up. (Damian)

4.1.2 Hardware

The officers also reported multiple drawbacks with the hardware. Specifically, the officers disliked the bulkiness of the cameras, noting that they became intrusive for officers who already wear layers of equipment. They also mentioned that since the cameras were bulky and therefore easily visible to the public, they became distracting during police-citizen interactions as the public would become more fixated on the camera than the officer or the situation. The officers also reported problems with the mounting of the cameras, but were able to find solutions:

A bunch of us who are taller and even shorter - many of our videos were not giving the proper perspective. It was down on an angle. It was not my perspective. So we came up with an alternative where we could actually mount them right in the centre of our chest which proved to be effective. (Damian)

I really didn't like wearing it on my vest right in the centre. As they had advised. I would tend to mount it up here [*points to shoulders*] and swivel it down and it was out of the way. It worked great. It was pretty cool because when I did mount it up high it functioned basically as in-car camera and I did end capturing some offences on video which I ended up using later. (Michel)

4.1.3 Objectivity

Officers also discussed the objectivity of the BWC video footage. The majority of the officers believed that BWCs do not produce objective accounts of police-citizen interactions because they do not capture the entirety of an incident or event and they do not account for the perceptions of the officer.

It's not as good as it sounds. It's only showing in a one dimensional way from my chest or wherever you have it clipped on. It's not seeing everything else. It's not necessarily picking up the person behind you or the person over here that keeps distracting you. So it is good but it's not as good as people think it is. That's one of the downfalls. We could still be criticized by someone watching that video and saying, "Well officer, look at that.

Why didn't you deal with this that way?" You try to explain, "Well yeah but there were five different things that you couldn't see." (Abel)

Our side can show what's going on. Our side can show our point of view and where we're coming from but it's limiting it - it's a nice wide angle but there's other things going on that the camera may not pick up and people need to remember that: that there's other angles. (Andrei)

I found that movement wise when you were having an interaction with somebody it was like Blair Witch you know what I mean? It captures a certain element of the event and if you were involved in a physical altercation you are obviously trying to get away so the camera is doing this [*motions to the camera moving up and down quickly*]. You're not clearly seeing what happened in an altercation. It's all over the place and I don't think that's something you can change unless you have a drone flying over our head which is completely unreasonable. (Matthew)

You see some crazy footage in the United States where they get involved in shootouts. My concern there is you don't see what's fully going on. It captures audio but all you see is this copper flopping around and hiding behind a car. It captures zero of what's going on. (Michel)

Six officers also noted that BWCs do not capture the officer's perceptions at the time of an incident. Consequently, the footage may be unreliable when trying to evaluate an interaction.

The cameras - it's all second thought too. So the cameras are not there. They're not seeing what I see. They're not feeling what I feel. They're just one dimensional reporting where I'm seeing and feeling and so it's this one dimensional whereas I'm taking four, five different dimensions and processing it all. (Jax)

Well you're making your decisions based off of what you perceive at the time and somebody would look at a camera and say, "Well there was another option over there." If you weren't aware of it and if you didn't perceive it then that is not going to go in your favour. I don't think there's going to be many arbitrators that say, "Well the officer didn't see it, it's not his fault" because we're held to a higher standing. It's not objective - it's subjective it really is. It's based on the way you perceive it to be. (Jordan)

4.1.4 Video and Audio

The officers did not discuss video and audio quality in detail; instead their responses were typically comprised of one word answers such as, "amazing", "good" and "okay". While the majority of the officers reported favourable conditions associated with BWC video and audio

quality, they did note a few complications. For example, the video quality became worse in the dark and at times the audio would cut out or fail to turn on:

We had situations where the audio didn't record or you turned it on and it didn't fit so when there are technical issues then that also breeds, "Well was there technical issues or did the officer do that?" And then that hurts legitimacy. (Damian)

Matthew encountered a similar experience when he returned back to the station during his shift only to find that the audio failed to activate during a critical incident.

My immediate reaction when it did happen to me wasn't, "Oh shit this is a technological issue - this is something that went wrong or the camera froze". My immediate reaction was, "Great, now I'm going to have sit down and write for 20 minutes on why the camera failed". And I don't even know why it failed. I tried to put it in and it failed but my immediate reaction was, "Oh shit, now they're going to think I did it with malicious intent to hide this incident" and it has nothing to do with that. It just messed up. It wasn't my fault it messed up. (Matthew)

4.1.5 Software

The 2 Sergeants who participated in the study reported several problems with the software used to upload, categorize and review BWC footage. It is likely that the Sergeants discussed BWC software more than the Constables because they were assigned more duties that required them to use the software on a daily basis. Both Sergeants expressed frustration when recounting their experiences with the software. For example, at times the video footage would upload under the wrong badge number and as a result, it would become difficult to locate in the software. The video footage also couldn't be viewed by officers until the next day after its video number was released. This was especially frustrating for officers who needed the video to write their notes on the same day that the police-citizen interaction took place. The Sergeants also noted some concerns with categorizing the video footage:

So the in-car cameras when you shut them off a little thing comes up on the screen, a prompt. You have to choose then whether it was a criminal dealing, provincial dealing or other before you can actually exit. So you have to do that every time you shut the video off. But it prompts you so you can't actually exit right out without prompting it. With these body-worn cameras, unless you remember to press one of the buttons as you turned

it off which 99 percent of the time we didn't, it didn't happen. So the Supervisors would get notified and we had like hundreds of videos that aren't categorized and then we had to get officers to come in so we're pulling them off the road to sit for hours, watch their videos, and categorize it. (Abel)

At times, the video footage also became corrupted due to complications with uploading the video onto the server. The Sergeants felt that potential video corruption is highly problematic, especially in criminal cases where that video footage is required to prosecute an individual.

4.1.6 Storage

Only half of the officers discussed the storage of BWC video footage. Even when officers raised the issue of storage, they discussed it in relation to other conditions such as cost and privacy and not the actual functionality of it. For example, both Damian and Jax discussed storage, but in relation to other conditions:

The storage is the biggest thing – the storage is only going to get more and more expensive. (Damian)

The problem we're going to have with cameras is where are we going to store all of this information? Who is going to have access to it? Who should have access to it? (Jax)

It is likely that storage was not discussed by the officers because they were not responsible for storing the data and therefore did not have interaction with storing the data.

4.2 Technology Strategy

Technology strategy refers to people's views on why they believe their organization adopted a particular technology and its' likely value (Orlikowski & Gash, 1994). In the present study, all 10 police officers discussed several reasons for why they believe the Toronto Police Service adopted BWCs. The main themes that emerge from the findings include: availability and advancement of technology as well as enhanced police transparency and accountability.

4.2.1 Availability and Advancement of Technology

A total of 8 officers attributed Toronto's decision to test BWCs to the availability and advancement of technology. Most officers felt that BWCs are the next "natural progression" in what they refer to as a "digital era". Some of the officers also discussed how the mere availability of BWC technology is reason enough for the Toronto Police Service to consider adopting them:

The technology is there. The rest of the world is sort of going to it so at some point we're going to have to answer why we're not using it. So that's another step right just as far as having to keep up with the times. It's available. We have to use it. (Abel)

Some of the officers also discussed the concept of a "surveillance society". While the officers did not explicitly use that term, many of them discussed the prevalence of digital recording, both by the public and the police. The officers mentioned the public's use of phones to record police activities, the use of video recording in police interview rooms, in-car camera systems and closed circuit television:

I think that's the way society is going. I think it's probably a natural progression I would say. Because everything else is recorded right. (Michel)

4.2.2 Enhanced Police Transparency and Accountability

All of the officers felt that their organization adopted BWCs in order to enhance police transparency and accountability. However, officers felt that this motivation did not come from within the police service; rather it was cultivated and imposed upon the police service by external parties such as police services in the United States, political groups, politicians, the media, and what officers term as the "vocal minority". For example, several officers mentioned the impact of police services in the United States on Toronto's decision to adopt BWCs:

I think there was a lot of political pressure because of the incidents that happened in the United States. There was almost a tidal wave that that splashed over Canada. In a sense, we're like the Little Brother. When Big Brother puts on a blue or red shirt, we follow suit. (Matthew)

Because the States started. I think a lot of what happens in policing starts in the States with a lot of their issues and then they make their way down here. (Andrei)
 How we got involved the Toronto Police? I'll be honest with you. We showed up to work one day and the cameras were there. But again what happens south of the boarder always happens here about five years later. I don't have the statistics but I'm going to say out of the 100 serious occurrences that happen in the United States 1 happens here but again some will say 1 is too much. (Tarek)

All of the officers felt that politicians and political groups urged the adoption of BWCs in order to “keep an eye on the police” and “hold the police accountable”:

A body-worn camera makes politicians say were making sure police are held accountable, they have their cameras. They can show what's going on. A body-worn cameras is keeping an eye on the police. It's just like Big Brother. If you can't give me more officers on the road then how the heck am I supposed to swallow I'm going to give you a body-worn camera to watch me? To make sure I'm doing my job properly? (Damian)

It's all for the accountability. It's not going to help me. It's to catch me doing something bad. That's how I view them as opposed to catching me doing something right. (Jax)
 I think it was a politically based decision because police are under scrutiny and they want us to be accountable. Certain people in the public see if we're under surveillance all the time, then people can see what we do and if we do anything wrong there will be evidence of such wrongdoing. (Jordan)

I think there's so much scrutiny and negativity around how police officers are interacting with the public. They very much want they want us to be a little more transparent. You know truthfully, I think there's an aspect that police are lying, especially from certain media groups. And so I think it was a way of showing like okay no, here's the answer to what police do and to show our transparency more; to show how we police and how the public interacts with us so I think that's how it came to be. (Luca)
 The public wants to know that we're doing everything right and they want accountability so if I don't do something right then I have to pay for it. (Tarek)

2 of the officers characterized the public requesting BWCs as a “vocal minority”. They argued that while it may appear that the majority of the public supports BWCs, it is only a small portion of the public that is loudly advocating for their extensive adoption. Consequently, this paints a false picture of the public's support for BWCs:

I think it definitely does have a positive in terms of I think it's like a teddy bear for the public. I think if you asked the vast majority of Canadians, do you trust the police they

would say yes. It's a very small minority, a very small loud minority that we cave to. (Matthew)

One of the problems I have with body-worn cameras and cameras in general and us is that there's this misconception with the public. I shouldn't say the public. I should say the vocal minority public that says the police are doing a bad job all the time and we need to see what they're doing all the time. I think it's the vocal minority that has a problem with what we do. (Jax)

2 of the officers also expressed concern that the decision to adopt BWCs was simply a “knee-jerk reaction” to satisfy political interest groups:

I think there is political pressure. There is the media: the narrative of racist police against whatever type of community they wanted to stoke the fire. I think that helped. Rather than maybe stand up to it we caved, right? I'm not saying body-worn cameras aren't good – there's definite aspects that are good but there's definite concerns. Being progressive isn't about a knee jerk reaction; it's about taking that analytical data and analyzing it and not doing it just to make a certain portion of the political activists happy or not. (Matthew)

I think we're caving in to being too transparent. I mean we have to be transparent but the body-cameras – I don't know if the Service thought that this will quiet some of the special interest groups that are criticizing it. (Abel)

However, Michel, a Constable at Traffic Services disagrees with this view:

I don't think it's necessarily a knee-jerk reaction or else we would have seen this been implemented quite quickly some time ago. I believe that, yeah there is a need for oversight with the police because just like anything, there are some people that are doing some things that they shouldn't be. (Michel)

4.3 Technology-in-Use

Technology in use refers to people's views on how the technology will be used on a daily basis and its likely conditions and consequences (Orlikowski & Gash, 1994). The findings from this section are discussed in relation to the following themes: cost, accountability and transparency, ease of use, procedure, privacy, court proceedings, public complaints, officer availability, officer conduct, citizen conduct, officer and public safety, BWCs as a mechanism of

control, and counter-sousveillance.

4.3.1 Cost

All of the officers discussed the cost associated with purchasing and implementing BWCs.

Several of the officers expressed concern over the high costs:

I think the ongoing cost of these things is definitely going to escalate. It's like building a bridge. They say 4 million dollars at the beginning and then it goes up to 10 million dollars. You can't foresee these issues. (Jordan)

I think the major effects that you'll see are definite budgetary constraints in relation to overall cost, maintaining, storing it. (Matthew)

Our Service guaranteed will buy the cheapest camera they can. It's going to be a hunk of junk that never works. (Tarek)

All of the officers discussed how the money to purchase and implement BWCs could be better spent on hiring more officers and purchasing Tasers. When asked to discuss the most important disadvantages of BWCs, Damian responded:

The cost. If I can't get time off and we have to reduce the police budget then why are you saying that we can afford cameras when we can't afford police officers? We can afford the camera but not the Taser? My job is to serve and protect - look after people and do it properly. I do it properly but give me the tools to make sure I can do it to the best of my abilities. A body-worn camera is not a necessity. I think Taser is a necessity. Having officers available is a necessity. (Damian)

So they, whoever they are, want to keep an eye on me, I think it's just too much money to be investing where we could be - Tasers right? We've been talking about Tasers since I've come on this job. That's 17 years. I think a Taser is going to save a life more or has saved more lives than a body-worn camera. (Jax)

Spending 30 million on storage and potentially 100 more on cameras and then have the low numbers that we do and have people sitting there waiting for break and enters, violent domestics - it gets embarrassing going to someone who's had their house broken into and sitting there for a day or two for an officer to actually show up. That's ridiculous. Yeah you can get 4,000 or 5,000 body-worn cameras cool but I'll tell you what: when your house is broken into and there's someone in your house and you're terrified the body-worn camera isn't going to hop in a car and respond to your call. So where is the money better spent? (Matthew)

4.3.2 Enhanced Police Transparency and Accountability

Despite that all officers associated the adoption of BWCs to a political push for enhanced police transparency and accountability, very few actually discussed them as potential conditions of using BWCs. Only 4 officers mentioned enhanced police accountability as an effect of BWCs. Even then, some officers questioned the degree to which it will be accomplished:

Well, I mean it makes us accountable but like we are behaving ourselves. That's what people don't realize. That's why it kind of makes us look bad when we fight the idea of having the cameras. It makes us look like we're trying to hide something. We're not trying to hide anything. (Abel)

A few believed that BWCs will enhance police transparency and potentially legitimize police activity:

For sure it will legitimize what we're doing and make us more transparent. (Andrei)

It does show transparency of the Toronto Police Service and any police service. (Damian)

There will be more transparency so that is the thing that will affect people a lot. Basically, it's more like customer service rather than police work. (Jason)

4.3.3 Ease of Use

All 10 officers discussed the ease of use of BWCs. Six officers felt that activating the camera was the most challenging task, especially in high intensity situations.

So there was an incident with me and my partner and we boxed this guy in with our motorcycles and I ended up taking the guy physically down. I had a body-worn camera but the situation developed so quickly that I didn't have a chance to turn it on and then once the accused was in custody I turned on the camera and I was like, "Oh I forgot to turn the camera on." It would've been great to capture it on video because it would've been oh great look at what this guy is doing but I just didn't get a chance. It didn't occur to me right because we were worried. (Michel)

My concern is sometimes in the moment of heat you have a foot pursuit or anything else and we won't be able to turn the camera on and you're running after someone and your camera falls off and you have to write it up like listen, okay Commander I lost my camera. (Jason)

I'm not going to go in when someone's attacking someone with a knife and be like, "Hold on, make sure my camera is on, put my hat on." You know that's just not reality, that's not life. (Matthew)

Jordan, a Sergeant who was deployed at TAVIS during the pilot project noted that several of his officers complained about activating the camera:

There's a lot of stuff going on. Officers saying, "Well the last thing I want to worry about when I'm running to a scene is remembering to turn my camera on." Well when I'm faced with a life threatening situation and I forget to turn the camera on you know that's real that's not made up stuff. But you cannot say to a person, "Oh it's just a button." You know some cameras were harder to turn on than others. It could be momentary distraction. That's not what we're trained for. We're trained to be focused; not to be fiddling with something. It's not a human reaction right. It's not always practical. (Jordan)

Abel, a Sergeant who was deployed at 55 Division during the pilot project noted similar experiences. While Abel understood that there are certain scenarios where it is difficult to turn the camera on, he felt that the failure to activate the camera was becoming too common of an occurrence, specifically amongst younger officers. When asked what the main issues amongst the officers were, he responded:

Well the main issue was you had to get them to turn it on. And sometimes as supervisors, you pretty much had to threaten them you know like you have to have it on. Or something would happen and I'd say, "Did you have your camera on?" "No." I'd say, "You have to have it on. You're going to get disciplined for not having it on. You have to have it on" And it was just a big button that you had to press. It wasn't hard. (Abel)

The Sergeants mainly reported difficulties with using the software. As previously mentioned, the Sergeants had to use the BWC software more than the Constables due to the duties that were assigned to them as supervisors. Both Sergeants felt that the software was not easy to use and created added stress.

The software was a pain. For example, my video would upload under your badge number so when I tried to find it I couldn't find it so you'd had to do a search of all them and then you'd have to switch it from one officer's badge number to another in the server. (Abel)

All the guys had to do was sit at a table and get a camera issued to them, but for us supervisors, there was me and my colleague for 16 officers. It was a pain in the butt on a daily basis. So as a Sergeant, I actually had to change my shift and come in an hour early because you would come in and some of the cameras they wouldn't have uploaded. It was stressful. It was irritating. It was doing the same thing over and over again and no solution to it. (Jordan)

3 officers mentioned that future software and BWC models must be easy to use in order to ensure officer compliance and effectiveness.

If it's complicated to use and it has multiple steps, especially in our field where we have multiple things to remember, it's too difficult. It has to be simple: very easy, on and off, flashing light. (Matthew)

4.3.4 Procedure

Officers also discussed the procedure governing the use of BWCs. When officers were asked to share their thoughts on the advantages and disadvantages of the procedure, the officers frequently responded by explaining what the procedure entailed rather than reflecting on its conditions and consequences:

Pretty much anytime we initiate an interaction with the public we advise them of it. Out in public we don't have to turn it off. If we're in someone's home and they refuse we had to do but don't quote me I don't spend a lot of time in people's houses anyway. Basically anytime we initiate contact with the public. (Andrei)

We were prohibited from using them in hospitals but were in hospitals a lot – if suspects are injured or from car accidents – impaired driver's mentally ill people. So we were told them not to use them in hospitals unless the need outweighed the privacy. (Jordan)

While this was a common occurrence, some officers did discuss the conditions of the procedure; specifically in regard to its clarity and practicality. All of the officers that discussed the clarity of the procedure believed that it was clear and easy to understand. However, both of the Sergeants who participated in the study believed that the procedure could be understood differently by officers due to the potential for subjective interpretation.

The problem is everybody argues. You could put something in procedure and everybody will interpret it themselves. So officers would argue with me, “No, no but they didn’t call. I stopped them.” And I say, “Yeah but like why? You’re dealing with them as a police officer.” “Yeah but it wasn’t investigative.” But like at the end of the day, who cares? Just turn it on. I don’t care if it runs all the time. I’m acting properly – just leave it on. You know the more run video the better really because 99 times out of a 100 we’re acting appropriately. (Abel)

Essentially, what we were told is if you had a camera and you went to one of those calls, you turn it on because you’re interacting. However, if the person starts interacting with you, then you don’t have to turn it on which can be a little confusing to. There’s always the caveat that unless the need to gathering evidence or the value of recording was more than not recording and again that’s subjective right. Can you punish someone for saying it’s not valuable? (Jordan)

When the Constables discussed the conditions and consequences of the procedure, they discussed its practicality in regard to when to turn the camera on and off. Some of the officers believed that it isn’t practical to turn the camera on during dynamic situations that require the immediate attention of an officer:

A lot of times it was like that high intensity situation and there’s a bad guy and he’s doing this and someone’s in danger and then it’s like you get out to deal with that and it’s hard to engrain, “Oh turn on your camera.” It’s just, “I want to help this person”. So you get in and everything’s good and then you’re like, “Oh jeez this needs to be on. I forgot to turn it on.” (Damian)

In the moment of heat sometimes, when you're running after someone you have tunnel vision of that guy is running in front of me. You forget. The only thing is, “Yeah I have a gun and I have my use of force” and you forget this thing and forget to turn it on. I did it and probably other people did it to. That's the procedural thing - if you're going to put a procedure on it that's what's going to happen. (Jason)

2 of the officers also discussed the practicality of the procedural provisions that guide the use of BWCs in a private residence. One officer felt that BWCs shouldn’t be turned off at the occupant’s request while another believed that notifying the occupant that the BWC is recording is impractical and ineffective.

They were explaining if we went into somebody’s home and if the occupant requested that we turn off the camera, then we turn it off. And all of us were like that’s kind of silly

isn't it? You at least have consent from one of the parties and that's me, right? If this is a tool that's supposed to cover me and capture me while things happen then why are we turning it off at their request? They called us and we're interacting with them. Why are we turning it off? So I thought that was kind of silly. (Michel)

So you go to somebody's house because 911 is called. If 911 has been called, then why am I asking for permission to go in and record? You go to a domestic and you have a woman that's bleeding in front of you – predominantly its women, there are some men – and you say, “Hi mam, I'm with the Toronto police and I have a camera”. You're wasting time. (Tarek)

4.3.5 Privacy

Six of the officers discussed privacy concerns as a consequence of BWCs. Specifically, the officers addressed officer privacy, the risk of revealing confidential information, privacy in hospitals and the possible corruption of sensitive information. In regards to officer privacy, officers were worried that private information could be recorded and viewed by their supervisors if they forget to turn the camera off after an incident.

I have to remember to turn it on. I have to remember to turn it off and sometimes I could leave it on and the conversation in the car with your partner is being recorded. A lot of the stuff we say privately is just that. We're just having fun and it doesn't mean anything but now all of a sudden if it is caught on camera, “Oh well maybe he does mean what he means” or “Why is he laughing at that?” (Jax)

It's not always practical and the answer to that with some members of the public is to leave the camera on all the time. But what if you're going to the bathroom or you come in and speak to the station duty officer or you're having lunch? It really is intrusive. We're paid to be here but we're not owned for a hundred percent of the time. We're human too. (Jordan)

Three of the officers were also concerned that confidential information about members of the public could be accidentally recorded if the officer forgets to turn their camera off.

You might forget to turn off the body camera so now you might have confidential things being discussed on camera and if it's disclosed would have to be vetted. (Jordan)

A couple officers mentioned heightened privacy concerns during hospital visits.

So when we go to hospitals we wouldn't have it on just because everyone has the right to privacy. Especially when you pass Emergency you're in the back and doctors felt a little nervous about it when they're dealing with some stuff. Totally understand. (Luca)

A couple officers also discussed the privacy implications stemming from possible video corruption.

If you're involved in a sexual assault and if I'm talking to you about it - do you really want that stored and have it hacked? That's a massive violation. It's not right so we will ultimately have to store it on site somewhere very safe so you're talking major bucks. (Matthew)

4.3.6 Court Proceedings

Seven of the officers discussed how the use of BWCs could potentially impact court proceedings. Abel summarized the views of the officers best when he stated, "I think it'll help us in court when things go right and it'll hurt us when there's a problem." Overall, the officers agreed that the use of BWCs could reduce an officer's time spent in court, the perceived validity of an officer's testimony and lastly, the acquittal or prosecution of an individual. However, they also mentioned that there are a number of variables that could lead to implications during court proceedings. For example, six of the officers felt that video recordings do not account for police officer perceptions and consequently, do not produce an accurate representation of police-citizen encounters. Many of the officers felt that if the footage is determined to be accurate by a judge or jury, the officer's testimony may be considered invalid or untruthful.

We could look like liars in courts. You know we're never going to perceive things 100 percent as to how it happened. (Abel)

I think the fear is you're looking here and dealing with this person and the camera catches something over there but you didn't see it. So it becomes a matter of whether a judge says I did or didn't see that. But a judge is going to say, "You should've known that." So you know we have to perform, go up there and be perfect. And if the judge says, "Well you saw this, this and this but you didn't see that over there, then you know you didn't really do a good job officer." So there is the reality, the perception, and then somebody who is judging it all. (Jordan)

When I go to court, especially in Criminal Court – if I’m off by one word they’ll eat that alive. Charges dismissed. Officer is clearly not understanding what’s going on. He wrote something totally different than what showed on video. I’m going to tell you they’re actual accounts. Why am I even writing in my memo book? If I can go on and that video plays, why am I writing in my memo book? You know? (Tarek)

Half of the officers agreed that BWCs were useful for providing evidence for investigation and court proceedings.

Biggest advantages. Gets everything on record. What I say and do. What they say and do. The body-worn cameras more so than the in-car cameras capture the event and the interaction. So yeah that's definitely an advantage. (Andrei)

Several officers agreed with Andrei’s statement. With the use of his BWC, Luca from 43

Division was able to capture crucial evidence while guarding a homicide crime scene:

I left it on because you know sometimes people come back to see what's going on so that helps homicide so they can sit and view it. “Oh look here's that car, it circled again. Here are these guys coming around again.” I can't go into too much detail but yeah it helped. It helped in a couple situations. So just leaving it going, they are able to just sit and view it.

Damian from 43 Division was also able to capture important evidence while he was accompanying a shooting victim at a nearby hospital:

A guy got shot and he was in the hospital and we turned the cameras on. We told him we had the cameras on and he actually told us what happened and was telling the truth which is rare. He told us exactly where it happened and how it happened so we were able to go to the scene and have that evidence there to. I don’t even know if it went to court but it was very nice having the camera on with a guy who’s shot, in the hospital bed and us capturing it which was interesting.

Michel from Traffic Services also found that the BWCs were useful for capturing evidence but he acknowledges that evidence was only rarely captured on a BWC.

It helped me a couple times. But there were only 1 or 2 cases where it actually captured an offence that happened. A girl was stopped because she decided to go through a red light that hadn’t turned green yet and turns out it was all captured on camera so it’s – from that

perspective it was only used a couple times but I liked it.

Other officers agreed with Michel. For example, Jordan believes that while BWCs are a good investigative tool, their use in court is very limited.

It was surprising how few videos we actually manufactured go to court because in reality we don't arrest 2 or 3 people a day and sometimes if you arrest somebody they plead guilty before you even get a chance to get the video, vet it and put it to court. And that's the thing – for the officer it is supposed to be used as an evidence gathering tool but the reality is there's not that many.

4.3.7 Public Complaints

When officers spoke in favour of BWCs, it was typically in relation to their potential to protect officers from false allegations of misconduct. All 10 officers believed that public complaints could be reduced with the use of BWCs.

I felt more comfortable with getting more involved in dealing with the public. You know not worrying about - Oh, am I going to get a complaint? Are they going to try and make something up? So yeah when we lost to them I felt a little more stressed going out onto the road. I don't want to say like a security blanket, but you kind of felt a little more protected. That extra resource that protected you from any types of lies against you. (Luca)

For what we do, for the traffic stuff I said bring it on. I'd be the first one to sign up for it. That's actually when the pilot project came to an end. I was disappointed because it was a CYA (*cover your ass*). It covered my butt all day cause knock on wood I haven't been accused of anything. It'd be very easy for someone to say, "Oh when the officer stopped me he reached in the car and slapped me" so I said you know what? Give me the body-worn camera. I'll wear it all day. I have nothing to hide. (Michel)

I actually like the fact that it protects us. There was one night where I was by myself for quite a while waiting for somebody to give me a hand. I was dealing with two extremely drunk females. Both were professional people. And I had the camera on the whole time and these two women were so drunk. I kept holding them up and they were falling into me and I was trying to keep them in the car because it was so cold out and the whole time I had it on. Like this is great. If they ever tried to accuse me of something – that I did something inappropriate—well I've got the camera on. (Abel)

As a supervisor, Abel was also responsible for reviewing an officer's BWC video footage after an individual accused the officer of misconduct. After reviewing the video footage, Abel determined

that the complaint was not substantiated. He decided to show the individual the footage so that he was able to see what happened during the incident:

I actually invited him to watch and he eventually just backed out and said, “If you watch it, I believe you.” Cause a lot of the times, when people make these accusations they really believe it in their mind. And I thought, they actually have it in their minds that that’s how it happened sometimes. They’re not just flat out lying so it’s great in that instance. You can actually show them and say like, “See? Now do you see what happened?” (Abel)

4.3.8 Officer Availability

All of the officers reported an increased workload with the use of BWCs. All of the officers, except for one who vocalized his indifference, perceived limited officer availability as a consequence of BWCs. Specifically, the officers expressed frustration with the extra time it took to review, categorize and order video footage. In regards to reviewing the video, the officers felt that they spent more time redacting videos, making notes and completing extra paperwork.

Way, way more time. Like between the officers themselves, the supervisor, the detective it added hours. (Abel)

There was one officer at TAVIS that had an hour long video. It took him 3 hours to vet it because it’s not just watching the video - it’s making the notes. If you’re going to review a 10 minute video it’s not going to take you 10 minutes. An hour long discussion with somebody about a criminal matter that ends up being a suspect; that can take a long time to vet. (Jordan)

But with me and the crew and one of my major issues with body-worn cameras is that we are a very high volume service. We are one of the busiest divisions in Canada. So here is the dilemma: I get involved in a serious incident so I arrest whoever and bring them into the station. Now I have to sit for an hour or two, watch the footage so that everything lines up with my notes so you’re potentially adding an hour to two hours of time. Do I think it’ll gum up PRU (*primary response unit*)? Oh yeah. (Matthew)

With a minor traffic ticket, I’m spending an hour or two in the station just dealing with this paperwork. Why do I have to do this? (Michel)

There’s so much extra work with the body-camera. And it’s for that 1 percent of the time where it’s like, “Oh that’s great I’m glad I had my body-worn camera.” But 99 percent of the rest of the time I just don’t want to have the body-worn camera right now. I just want to be able to deal with this and be done with it like I used to do. So there is that

aggravation and also other officers are like, “My god the guy with the body-worn camera is here. We can’t just do this.” (Damian)

Jason was the only officer who did not view added paperwork as a consequence:

Paperwork is sometimes - we have to do it, we have to do it - it's my job. I'm not worried about that. Not a big deal. (Jason)

The Sergeants expressed frustration with having to categorize the videos:

So the supervisors would get notified and we had like hundreds of videos that aren’t categorized and then we had to get officers to come in so we’re pulling them off the road to sit for hours, watch their videos, categorize it. And then once that’s done, I’d have to view it just to make sure they’re acting appropriately. (Abel)

Officers were also required to order their videos for criminal proceedings and investigations which resulted in an increased workload.

Well, me personally, I'm in traffic. Yeah, I wouldn't say more paperwork specifically but because of the evidentiary part of it you spend more time ordering those videos and hunting them down. There's code numbers that you need to do in order to get a particular video for court. So yeah that is definitely more time consuming. Especially for the guys in our officer who are writing a lot of tickets. They're spending hours doing stuff like that. (Andrei)

Finally, supervisors were responsible for reviewing the video footage of their officers in order to ensure professionalism:

Think of the labour-intensity that a Sergeant a supervisor, reviewing hundreds of clips of mine to see how I am applying the law to everybody. (Jax)

Every month I had to watch a certain number of officer’s videos. And like I said, I had to watch it in real time so I could be sitting there for like an hour just to make sure they were behaving themselves properly and they weren’t acting inappropriately. And I had to deal with the problems of all the officers. Like I had more access so I had to find theirs. I would literally spend hours sometimes like even just searching for their video and getting it in the right category. (Abel)

4.3.9 Officer Conduct

In the present study, the findings suggest that all 10 officers believe that officer conduct may be impacted in a number of ways. However, officers differed in their views on how officer conduct would be impacted. For one, officers believed that other officers acted differently around them when they approached a scene with a BWC. Indeed, a number of officers reported that other officers who were not equipped with a BWC became uncomfortable or weary when BWCs were present.

Other officers hated it. They hated it when we were around. Didn't want us around. It's like the spooky ghost. I think anyone would have a concern. You don't know who's filming. So I made it a mission of mine when I came on scene to say, "Hey guys I'm filming." It kind of brings the comfort level up. (Matthew)

As long as everyone was aware that it was on. We would always have to make sure we pointed. And really not that we were doing anything inappropriate just you know. (Abel)

Two officers fear that when equipped with a BWC, other officers will avoid them altogether.

Well police officers on the street will have less communication with plain clothes officers. Guaranteed. They won't want to be on film. They won't even want to be near you. It's great to have one come by and whisper in your ear, "I'm over in this corner. Don't do anything on this or I'm here for this reason." Now the camera is recording. He can't come near you. He can't be seen. She can't be seen. Yeah nobody will talk to you but the camera. (Tarek)

Generally, officers agreed that officers may become more stern, gentle or back off from situations completely. Since officers were aware that they were being recorded, they felt that they had to modify their behaviour to reflect professional standards in order to avoid reprimand or punishment. Consequently, officers felt that police-citizen interactions will become more robotic and less humanistic. Abel recounted his experience when reviewing other officers' videos and noted similar observations:

We have to read people their rights when they're arrested. Watching the video I would chuckle sometimes from the officers like no they normally don't talk like that. They do it right but they don't really do it that right. Reading all of this stuff out of their book and I'm thinking like come on, I've seen you do it. You don't really do it that well. You do it properly but not that properly so yeah it definitely creates a robotic way that they act. I mean I guess overtime they would get used to it. I'm sure if they had these cameras for 5 years and they took it away they'd probably keep acting the same. But definitely it changed most officers the way they talked to people.

You have to be a little more robotic. You can't be human because then you can be ridiculed. (Damian)

Officers also felt that their discretion was significantly limited with the use of BWCs. This stemmed from the belief that they had to strictly follow procedure and reflect professional standards at all times.

There's no more officer discretion. That's a big word and no it's gone. Since all cameras for that matter, there is no more leniency, no more reducing tickets and they're (*the public*) livid. If it hasn't hit them yet, it will. It will change everything. (Tarek)

In line with limited officer discretion, officers found themselves acting more "stern" and "strict" and feeling the need to act "more careful". This was largely due to the belief that officers had to treat everyone the same and show little to no lenience. Similar to the observations noted above, officers believed that their behaviour would become more heavily scrutinized with the presence of BWCs. Therefore, they modified their behaviour in order to avoid reprimand or punishment.

You may not give them as much help per say and explain things sometimes as thoroughly. Again, with my case in traffic tickets. During the court process the person might say, "Well the officer said that this would happen and this would happen." So you find yourself not that you're always professional but you find yourself more strict, more stern. "Hello, how are you, this is what you did." (Andrei)

Now with the cameras, it's, "Why are you giving you know people with pink hair all breaks and people with red hair get tickets?" "I don't know. That's just the way it goes. I don't know." So now my general rule is nobody gets a break. (Jax)

You know the next question would be do officers change their approach and I think that people would - people did - I think they became more methodical. A little bit more rigid because you're conscious of it; you're not trying to do anything wrong, you're just conscious of looking professional. (Jordan)

While some officers found themselves behaving in a more strict manner, other officers felt that the use of BWCs might lead to officers acting gentler and less confrontational. Ultimately, while the objective to avoid reprimand and punishment remained, the strategies used to achieve this objective differed.

We have stops where people swear at us the moment we come up to the car. You recognize there's techniques and a way. But if someone attacks you, you fight back. But you have to avoid that because the camera makes that a situation – it'll make you look unprofessional but if you didn't have the camera on you might tell the guy shut up and then you worry about what level of rudeness would be permissible. You know, somebody is being almost assaultive to you, what do you do? "Please sir?" Right? Sometimes you have to go up a level to get a person to react but then you worry about, "well someone might say I was using abusive language or someone might say I was being rude." (Jordan)

In addition, officers recognize that while proactive policing is largely considered a "dying" form of policing, the use of BWCs will cause officers to refrain from engaging in proactive measures or conducting investigations. According to Kubrin and colleagues (201), proactive policing is a policing strategy developed with the intent of deterring and reducing crimes. This strategy requires officers to increase their presence and public interaction, and to actively enforce laws against minor offenses in hopes of preventing further, more serious crimes. (Kubrin, Messner, Deane, McGeever & Stucky, 2010). To become more proactive, police services have introduced new patrolling techniques, increased their use of technology, and employed the use of carding and criminal profiling (Jackson & Wade, 2005). Officers also felt that officers might shy away or become distracted, which could potentially hurt investigations.

My biggest concern is proactive policing. I think it's a small portion of the public that doesn't like it because you're screwing their game. Right? That scares me that in my community if I was to raise my kids, that they would potentially be hurt because officers want to stay away instead of going out and doing their job. One of our jobs is to go out and prevent crime and it feels like they don't want us to do that anymore. (Matthew)

So if I get paid the same for not being proactive why am I going to do proactive if the reality is the public will immediately assume that I'm being a racist or untrustworthy? (Damian)

I remember in division arresting guys, "Oh you know I know who's running guns" and it'd be like, "Okay well we can't talk about this. It's on video cause this is disposable to anyone who asks so sorry we can't talk about it." But in the old days, it'd be like, "Oh okay tell me. What's going on?" (Michel)

You're just conscious of looking professional. It kind of distracts you sometimes from your goal. (Jordan)

Interestingly, despite that a number of officers reported a change in their behaviour or other officer's behaviour, four of the officers affirmed that the use of BWCs did not impact the way they policed. This may be the result of officers trying to show that they already behave professionally without the use of BWCs.

You really got to watch what you say you really got to watch what you do. But for the most part the type of policing the officer that I am that's not an issue for me. I mean I am what I am. You just have to be slightly more careful I guess but it doesn't really change how I interact or how I would ever. (Andrei)

I mean it doesn't change the way I operate or change the way I do business. (Jax)

The way I policed it did not change at all from not having the body-camera to having the body-camera. I dealt with the public the exact same way. (Luca)

Did it affect me? Very minimally how I operated as a police officer. (Matthew)

4.3.10 Citizen Conduct

Officers also discussed how BWCs impacted citizen behaviour. Three officers felt that citizen behaviour did not change while three other officers felt that the presence of a BWC improved the behaviour of citizens. Three officers felt that citizens interacted with officers more

robotically and three officers felt that some members of the public were less likely to approach officers. In regards to improved citizen behaviour, three officers felt that BWCs had the potential to deescalate situations:

It does make people behave themselves. And myself, I'm fairly good at articulating myself and talking about what I'm doing and why I'm doing it so I'd often spew out a bunch of reasons for what I'm doing and why I'm doing it and this person couldn't argue with that and now it's being recorded so they're just like okay I'm done I'm not going to be difficult. (Damian)

I found that the body-worn camera when it had the screen, the interactions with them were way more peaceful. And it really deescalated the situation. For example, there was a male who had previous horrible interactions with the police. He hated police. He was brought here. So we were standing by, my partner and I. We go to search him and it became a real negative. He started fighting. It ended up he had drugs up his rectum. That guy we had to take the hospital because drugs had to be removed by a doctor. We're there with him and he's just going off, "You're not going to do anything. You're going to have to kill me. It's going to be a fight." So he was in a special room and I'm turning this on. So I went into the room, kicked out some people that were in there and turned to him and said, "Hey you're on camera now. You're being recorded". And he just kind of then shut up looked right at it, said a few words and then he kind of just went quiet and I was able to talk to him. Here's why we're here. Here's why we have to do what we're doing. (Luca)

Three officers disagreed and felt that BWCs would have no impact on citizen behaviour.

I found that people calmed down a little more but some didn't. Some people are just ramped up. (Matthew)

No. Because most of the time I found that other than that one model where you can see it and people would be watching it, I never really saw that it changed the way they behaved. Like I thought it would in the beginning and like you would think – I mean it's got to make them behave a little better, you know? (Abel)

They see a body-worn camera they're not going to be like, "Oh I need to behave because I'm being videotaped." They're going to behave the way they want to behave. (Jax)

Some officer's recounted instances where members of the public would purposely avoid officers who were equipped with BWCs.

Some people who just want to hide something from you they will not talk to you. You have to tell them okay you're on camera now. They will not talk to you because they

know they're on the wrong side. Because when you're on camera it will come up after investigation so they will never talk to you. They will walk away. These days you can't stop anyone. It's going to hurt your investigation because if its undercover yes people can know who are bad guys but if in uniform I'm visible to the people and then I have to tell them because I'm investigating for this thing you're on camera they will not give you any information. It will hurt your investigation. (Jason)

Two officers felt that citizens appeared to be indifferent to the presence of BWCs while others appeared more curious:

Generally they were indifferent to it. Some more hostile people would say I don't give a fuck, film me, I'm not doing anything. Most of the time you go through the script and for some it doesn't register. (Jordan)

I know a lot of people were kind of interested in them. I mean like I'm a gadget guy. I like all sorts of you know apps for my phone or whatever and I find that a lot of people are too so they're like, "Oh that's a really cool camera. How does it work?" I press this button, press this button, records that sort of thing. And then I it gets downloaded to the wire or the cloud or whatever. So people were interested in that regard. (Jax)

Lastly, three officers believed that citizens behave more robotically when they engaged with an officer equipped with a BWC.

Once I start that spiel I lose some of my customers. They're just thinking, "Camera. Why is there a camera in my face?" I find at that point when we tell people that they're being recorded the attitudes changed. I'm going to say 85 – 90 percent of the time. Now they do shut their mouth, they don't say a word because they're scared they're going to be accused or convicted. (Tarek)

With the body-worn cameras the ones that have a screen on them, when I am wearing that and I say, "Hey I have a camera and a microphone and you're being recorded." They look at the screen and it's almost like deer in headlights. They give me the documents. They just hand it out. (Jax)

I found some people thought if they had a concern they stopped talking to me and they talked to the camera cause they thought like someone higher up was viewing the camera. You're just like okay. So people were talking to the camera instead of talking to us. (Luca)

4.3.11 Officer and Public Safety

All of the officers discussed officer and public safety as a condition of the use of BWCs.

Half of the officers believed that BWCs would not make them feel physically safer or protect them from physical harm. Three officers also felt that BWCs may cause added safety risks due to officer's changing their conduct:

I can see a bit of a safety concern with having the camera and officers may not want to deal with things they would if the camera wasn't on. You know we're going to be a little more gentle with people when sometimes you just can't do that. You have to grab somebody. Handcuff them right away. Throw them on the ground if they're fighting and stuff. I can see at some point that being a little bit of an issue. (Abel)

This one model you had to hold the button for a certain amount of time so you had to turn your head down and be like is this on? Well then you're taking your eyes off from what's there. So you know it's like if you're putting your head down that gives the guy a chance to jump on the officer now. (Luca)

No. Not remotely safe. I know that's a big thing they brought up and said it should make you feel safer but not even close. There are people out there that are determined - want to hurt you kill you and fight you - they don't get a shit if you're wearing a camera or not so those are the determined people that will cause you some serious bodily harm and there's not a thing you can say or do or have on you that will save you. They are determined and they are scary people and I know for a fact that body-worn camera will not get me out of this fight. It will not jump off my shoulder and put this guy's hands behind his back. (Matthew)

Officers also equated safety to the protection from false complaints of misconduct. While they agreed that BWCs do not make them feel physically safer, they emotional and mental comfort:

Definitely no more physically safer. I feel safer at the time just thinking down the road about a lawsuit or complaint but then there's also going to be those times where you do something outside the guidelines thinking I hope they don't complain because it's on video now. It always kind of made me a little nervous because I'm the supervisor. If I was at a call with 5 or 6 officers just praying they don't do anything wrong because now it's on all of our videos and their videos. (Abel)

If anything, I like them more because of how I felt about in-car cameras. Because in motorcycles you don't have cameras so this gave me a camera on me. To protect me. To protect them. If they were to say tomorrow the cameras are back, then perfect thank you. (Andrei)

Oh yeah. I felt a lot more safe when I had it on. I didn't worry as much - like I said to you, I didn't change the way I policed at all. But I felt more safe and not worry as much about, "Oh, am I going to get a complaint?" (Luca)

Most officers did not discuss how BWCs would impact public safety. Only a single officer felt that the use of BWCs could lead to consequences for public safety due to officer distraction:

If you're getting hurt or killed here my priority is to come and save you. My priority is not to turn a machine on to record the incident so I don't get in shit and I fear that's kind of the way things are going now with the service. It's turned into almost this fear culture of where you're scaring a lot of officers. You know I got to do 1, 2, 3, 4 before I do this. Our jobs are to save lives. Me, personally, if you're getting attacked I don't give a shit that the ICCS didn't come on you know, I don't. But if someone says why wasn't your ICCS or body-cam on? We're going to document you 8 hours for doing that. So you're putting a body-worn camera and saying it's more than a person's life. Really? (Matthew)

4.3.12 Mechanism of Control

All of the officers viewed BWCs as a mechanism of control. Several officers expressed discomfort with the idea of being filmed and monitored:

Most of our guys were younger guys which you would automatically think would be more open to try something new but it's the whole idea about being filmed and being recorded when you go about your daily duties. It was nothing more suspicious or weird than that – it's just somewhat different. It's not a natural environment – and that was the main concern I had and that was the main concern some of the guys initially had. I think essentially no one likes to be filmed and recorded. (Jordan)

Seven officers believed that BWCs would be used as a micromanaging tool:

The feedback we got from our officers was mostly negative. They didn't want them. It was the younger officers that disliked it the most it seemed. Because I know we had a few discussions and the Superintendent in charge of the program would come in and we'd have a discussion and stuff and I was surprised by how negative they were about it. (Abel)

When asked what their main concern was Abel responded:

Just being filmed and micromanaged. Scared. You know they're going to get a complaint on what's happening in the video. And I'm trying to tell them it's going to save you more than it's going to hurt you if you're acting appropriately. But they're so scared of getting caught for the little things which we don't really care about. (Abel)

Several officers expressed similar concerns:

I think it's goofy that it would come to that. That somebody has to review my professionalism and my behaviour. It kind of undermines what I'm trying to do out there. It's almost like, "We don't trust you. We don't believe that you are doing your job properly and professionally so we're going to review all of your videos to see what happens". It is a micromanaging tool but I'm micromanaged anyways you know what I mean? There's so many different layers watching over me that um it's just another layer. (Jax)

Especially the younger ones are worried about well, "How is my supervisor going to be judging me? Am I going to get in trouble? You know because I gave out a warning instead of a ticket?" I think that's where guys were worrying about it. Not from the public perception but from supervisors. It takes away from morale when you think you're always being judged. (Luca)

I can think of a handful of officers in this station that say, "Screw that. I don't want to go out with a camera. If you're going to send me out with an in-car camera or a body-worn camera I'm not going to do anything because you're just going to punish me." Right? So I can totally see that. (Michel)

Oversight isn't a bad thing. It never is, but does it go too far sometimes? 100 percent. We've become an over-safe, over-monitored society. I know full well what the body-worn camera is going to be. That's how our service works. It's going to be another thing that we're going to be monitored by. (Matthew)

4.3.13 Counter-Sousveillance

All of the officers discussed how BWCs could be used as a tool to alleviate or counter the public's fixation on recording police activity. Nine officers explained the prevalence of the public using their phones as cameras to record police officers:

I don't care that I'm watched, I know that I'm being watched. (Damian)

I find that we are going to arrest somebody I'll have 12 people filming and I'll ask for help but they just keep on filming. It's almost like the world wants to see you fail. (Tarek)

It's not a pleasant thing to have someone sticking a camera in your face and it literally is that sometimes - it's not even so much the phone it's the private space like really close. because we wouldn't tolerate somebody putting their hand with a fist to your face but we're expected to tolerate someone putting a camera in our face. Well it's the same thing really. And we don't do that you know - there's no need to do that. (Jordan)

Younger coppers hopefully like I said before, assume everything is on camera, now that's more tenfold because they see it they're living it. Assume everything is on camera and now it's assume everything is in camera and it's right in front of your face. (Andrei)

You can't avoid the watch these days - it is a digital era. Even if we are sitting in a room probably someone from the outside can make a video. I don't care if I'm watched. I'm a public servant. I'm available all the time. I'm in a scout car and I'm visible all the time. So when I'm in the scout car and people are watching me, who cares? (Jason)

Officers believed that BWCs could be leveraged to show the public the entirety of an incident or event:

Everything we do is being videotaped anyway. Why don't we capture the entire event so we can show the entire event. And that was a good selling feature – the way they sold it to us at the training. And the way I would sell it to the guys who say, “Well I didn't turn it on.” So you're being videotaped anyway. Get the best picture. Get the whole thing. (Abel)

Officers explained how this may “level the playing field” in terms of the public recording the police and police recording the public:

The phones are always out on us so right from the get go always assume you're on camera always and now more than ever. There are times when I'm doing a vehicle stop and it's being recorded I don't care. I'm recording you, you record me. (Andrei)

Somebody says I'm filming you and I've seen someone start recording an officer - the officer saying "I'm filming too - this is a body-worn camera" and then the debate starts so it kind of defuses the I've got a camera - Well I've got a camera too.(Jordan)

At one point this woman was right up in another female officer's face saying, "I'm recording what are you doing." I walk over cause I got the body-worn camera on and I go, “Hey how are you? Are you recording? So am I.” Well she shut up and walked away. She was out of there then she was not putting up much of a rant because you know, "Holy shit they have cameras on". So now they're not trying to ramp us up. (Luca)

I think we get that message across to the officers and the reason being is because we're going to be selling them the body-worn cameras at some point. If you condition the officers to realize they're under surveillance anyway, why not take some control of that? Why not have the tool to show what you want to show as opposed to having deal with – the only evidence you have in court is what somebody else recorded? You have no control over it. (Jordan)

I really liked it. It's not being cut up. You know exactly that you were the one who was

recording it. It's yours so I like that. I like that we have it and that we're in control of it.
(Luca)

Chapter 5: Keeping an eye on the police: Discussion

In this chapter, I begin by interpreting my findings in accordance to the TFR framework outlined in Chapter 2. I also acknowledge how this framework can be used to explain the sense-making process that officers engage in when interpreting and interacting with BWCs. This section of the analysis will contribute to the *theoretical* development of the TFR framework. It will also provide insight on the *practical* aspects of BWCs such as their technological functions and conditions. Then, I discuss two themes that emerged from the technology-in-use domain including police-community relationships and officers internalizing the surveillant gaze. This part of the analysis will provide insight on the *social significance* of BWCs and the practical implications.

5.1 Technological Frames: Assessing Officer Perceptions of Body-Worn Cameras

In this section, I address the study's research questions in accordance to their corresponding domain outlined in the TFR framework. These include: nature of technology, technology strategy and technology-in-use. In turn, this section will assess the theoretical underpinnings of officers' technological frames by analyzing the sense-making process and by examining frame incongruence. It will also provide insight on the practical aspects of BWCs such as their functionality, why officers believe their organization adopted them and how BWCs impact their daily duties. Lastly, it will provide insight on the broader social significance of BWCs as well as the resulting practical implications.

5.1.1 Nature of Technology

During the pilot project, officers developed technological frames around the capabilities and functionality of BWCs. This sense-making process was facilitated through the use of various

techniques. For one, it is common for users to assess the technical capabilities and functionality of a particular technology by referencing an organizational context or specific business use (Orlikowski & Gash, 1994). As I will discuss in the next subsection, officers associated the adoption of BWCs to a political push for enhanced police transparency and accountability that was imposed upon the police service. Consequently, officers perceived BWCs as a “customer service” tool designed to satisfy public concerns. This very context shaped how officers perceived the capabilities of BWCs. While BWCs have several capabilities such as a thirty-second pre-event recording, a rotating head and a front-facing screen, the officers consistently pointed to a single capability: the recording of police-citizen interactions. Officers adopted a very broad understanding of the camera’s capabilities because they internalized the organizational context from which the cameras emerged. For example, several officers stated, “It shows the public what we’re doing” or “It’ll catch us if we’re doing something wrong”, clearly referencing the camera’s recording capability in relation to enhanced police transparency and accountability. This is not surprising given that practitioners, researchers and the media overwhelmingly refer to BWCs as a transparency and accountability tool. Officers also assessed the technical issues affecting the functionality of BWCs in accordance to this context. For example, officers explained that poor battery life may result in the failure to produce video evidence of a police-citizen interaction. The officers also mentioned that video recordings may be inaccurate due to a lack of objectivity and poor audio quality. Both examples demonstrate how officers contextualized the technical issues affecting functionality of BWCs in police transparency.

It is also common for users to interpret the capabilities and functionality of new technology in terms of old technology (Orlikowski & Gash, 1994). According to Orlikowski and Gash (1994), “In the absence of other information, they will attempt to interpret it in terms of their existing technological frames, imposing assumptions, knowledge, and expectations about

familiar technology on the unfamiliar technology” (pp. 23). Indeed, several traffic officers used the recording capability of in-car cameras as a comparator to express their views on the recording capability of BWCs. During warmer months, officers typically travel on motorcycles when conducting traffic enforcement. One officer in particular equated BWCs to a mobile version of an in-car camera. He felt that both devices served the same function, only the BWC was attached to his uniform allowing him to record incidents without the restriction of spatial parameters.

The techniques used in the sense-making process help shape the development of technological frames that contain individual assumptions, expectation and knowledge of a particular technology (Orlikowski & Gash, 1994). Technological frames are then assessed for incongruence in order to understand how people understand and use technology. To assess frame incongruence amongst officers in this study, both frame structure and frame content must be considered. As discussed in Chapter 2, frame structure refers to the categories of frames while frame content refers to the values on categories of frames (Orlikowski & Gash, 1994). Frame structure amongst officers’ technological frames was consistent. Each officer identified the recording of police-citizen interactions as the primary capability. They also raised the same issues affecting the functionality of BWCs including: battery, objectivity, hardware, video and audio. Sergeants shared the same frame structure with the addition of categorization as a capability and software as an issue affecting functionality. Apart from rank, there are no differences across divisions and those who identify as visible minorities.

Officers also shared similar frame content. In regards to battery, officers viewed it as inadequate due to the short battery life and inconveniences relating to charging the devices. Similar findings were reported by Edmonton (2015), Janne and colleagues (2016) as well as Toronto (2016). Generally, officers agreed that BWCs do not produce objective accounts of police citizen interactions. They identified a number of reasons including: the camera does not

capture the entirety of an incident or event; the camera might capture something that the officer cannot see at the time of an incident and lastly; the camera cannot account for the officer's perceptions. The mounting of the camera was initially perceived as problematic but officers began to view this condition favourably after remounting the camera higher on their shoulders. Officers also agreed that the video and audio quality was sufficient but identified a few complications such as visibility of video in the dark and periodic incidents where the audio would cut out. Finally, both sergeants viewed the software as ineffective due to technical complications. Apart from rank, there are no differences across divisions and those who identify as visible minorities.

Given that officers share similar frame structure and content, their technological frames regarding the nature of BWCs are considered to be congruent. While congruence minimizes the likelihood of non-compliance, breakdown in communication and misuse of technology, there are several practical implications to consider. Since officers over emphasize a single broad capability of BWCs, there is a potential risk that other capabilities may not be used effectively or be completely abandoned altogether. For example, while the sergeants identified the categorization of videos as a capability, the constables did not. This might explain why sergeants reported several issues with how constables categorized their videos. These issues created extra work for both constables and sergeants, and consequently prevented officers from responding to calls and carrying out their daily duties. The issues identified in officers' frame content are also important to consider. Since the functionality of the camera was inadequate, the cameras' capabilities were not used effectively or to their fullest potential. Poor functionality may result in increased stress for officers and may potentially remove them from arguably, more important duties that don't involve fixing technological issues.

5.1.2 Technology Strategy

Understanding how officers perceive the technology strategy is particularly important. In the present study, officers' understanding of why their organization adopted BWCs significantly shaped how they understood its capabilities, functionality, conditions and consequences. As mentioned above, all of the officers felt that their organization adopted BWCs in order to enhance police transparency and accountability. However, officers felt that this motivation did not come from within the police service; rather it was cultivated and imposed upon the police service by external parties such as politicians, activist groups, media outlets and the "vocal minority". Similar findings were reported by Smykla and colleagues (2016) who found that the majority of officers surveyed in the study believed that media pressure played a large role in the decision to adopt BWCs. In the present study, most of the officers also attributed Toronto's decision to adopt BWCs to the availability and advancement of technology. However, officers cited this motivation less frequently.

Orlikowski and Gash (1994) suggest that individual's typically make sense of technology strategy through formal communication and articulation about a technology such as training and correspondence with their superiors. In the present study, officers did not reference any formal communication they received during training when discussing the motivations that led to the adoption of BWCs. Despite that training administrators mentioned several motivations such as gathering evidence more effectively and protecting officers from false complaints of misconduct, officers did not mention these in reference to the technology strategy. Instead, these were mentioned in reference to the conditions and consequences associated with the use of BWCs. Even more surprising is that training administrators explicitly stated enhanced police transparency and accountability as a motivation, but again - officers did not reference training in their articulation of the perceived motivations.

Instead, their sense-making process was predominantly informed by pre-existing

knowledge and assumptions drawn from media sources. Through their engagement with the media, officers developed a collective understanding that a high level of public scrutiny of police activity led to a call for improved police transparency and accountability which triggered the subsequent adoption of BWCs. Officers cited several media sources to explain their understanding of the emergence of BWCs. For example, several officers referenced media stories that discussed how police shootings of civilians prompted a public push for BWCs. Officers also referenced media stories on particular activist groups such as Black Lives Matter Toronto that were advocating for the immediate adoption of BWCs. Officers' sense-making process was also informed by the use of pre-existing assumptions. For example, two officers relied on pre-existing assumptions to explain how "strong" public support led the Toronto Police Service to adopt BWCs. They believe that while it may appear that the majority of citizens support BWCs, it is only a small portion of the public that is loudly advocating for their extensive use. Referred to as the "vocal minority", officers argue that this portion of the public uses public platforms to advance their position on various issues. This assumption stems from their belief that individuals who are critical of the police are more likely to promote their views through public platforms than those who are supportive of the police. In turn, the officers believe that the public and the Toronto Police Service falsely assume that the position of the vocal minority represents the majority of the public's position on BWCs.

Frame structure amongst officers' technological frames was mostly consistent. All officers identified enhanced police transparency and accountability as a motivation while almost all of the officers identified the availability and advancement of technology as another motivation. Frame content was mostly consistent. While all of the officers believe that the motivation to adopt BWCs was imposed upon the police service by external parties, the officers referenced different sources. For example, some officers believe that the policing landscape in the

United States played a significant role in Toronto's decision to adopt BWCs. All of the officers believe that politicians or political groups influenced the adoption of BWCs while fewer officers viewed the "vocal minority" and media as additional external influences. There are no significant differences in officer's views across divisions and those who identify as visible minorities.

Officers' technological frames regarding the technology strategy of BWCs are considered to be congruent. Similar to the previous domain, there are still several practical implications to consider. As Orlikowski and Gash (1994) argue that where there is a lack of formal communication and articulation, there is a lack of understanding which leads to users who are "highly skeptical" of the potential of technology or have a very "simple understanding" of its use (pp. 197). While the present study cannot determine the effectiveness of officer training and other forms of formal communication used throughout the BWC program, it can demonstrate the extent to which officers in this study referenced training to make sense of the motivations that led to the adoption of BWCs. As mentioned above, officers did not reference the training they received which may indicate that this part of training was lacking, not effectively received by officers, or overshadowed by other sources such as media and pre-existing assumptions. Consequently, this "lack" of formal communication led officers to develop a negative understanding of the motivations/decision that led to the adoption of BWCs. Indeed, officers predominantly viewed BWCs as a tool that is used *against* the officer rather than *for* the officer. For example, some officers believed that the motivation for adopting BWCs was to "keep an eye on the police" while others believed that both the police service and the officers did not have a choice in the matter; rather BWCs were a tool that they simply *had* to use. These views are highly problematic as it may lead officers to become skeptical of the potential of BWCs and develop a narrow understanding of their use. Indeed, if officers become increasingly fixated on the potential of BWCs to *hurt* officers rather than *help* them, the value of BWCs may not be fully realized.

Consequently, BWCs may be used ineffectively or not to their fullest potential. Further, this “lack” of formal communication may also lead officers to develop different views about the purpose/value of BWCs which may create inconsistencies amongst how officers understand its use—especially amongst front-line officers and senior officer/program administrators. Similarly, this may lead to the ineffective use of BWCs.

5.1.3 Technology-in-Use

As officers interacted with BWCs over the course of the pilot project, they developed an understanding of the various conditions and consequences associated with their use. Apart from simply interacting with the technology, the sense-making process was facilitated through a couple techniques. Orlikowski and Gash (1994) suggest that training and education provide individuals with the knowledge required to appropriate and manipulate technology effectively. In the present study, officers referenced the training they received to explain how this affected their use of BWCs. Several officers referenced scenario or task-based learning as an approach used during training. This approach provided officers with the opportunity to gain practical experience in knowing how to use BWCs appropriately and effectively. For example, it assisted them in knowing how and when to notify the public that the camera is recording and how to physically activate the device. However, officers felt that the scenario-based approach was ineffective in training officers how to use BWCs in high-intensity situations. Indeed, several officers reported that they failed to turn their BWCs on during high-intensity situations because it wasn’t a “natural reaction” or their focus was directed towards resolving the situation rather than activating their camera. Some officers also felt that the training was unclear and inadequate; specifically in regards to accurate note-taking. This might explain why officers reported feeling frustrated and spending extra time completing paperwork and taking notes.

Orlikowski and Gash (1994) also suggest that the use of technology is strongly influenced

by users' perceptions of its capabilities and properties relating to functionality. Since officers perceived the primary capability of BWCs to be the recording of police-citizen interactions, they questioned several procedures that prevented them from enforcing the camera's main function. For example, some officers questioned the need to notify the public that the camera was recording. Officers felt that it "wasted time" and limited their ability to capture "first-accounts" because people's behaviour would change once they knew they were being recorded. Some officers also questioned the need to ask permission to begin recording in a private residence while others disagreed with turning the camera off at a party's request while in a private residence. Their understanding of the properties relating to the functionality of BWCs also impacted their subsequent use of BWCs. For example, the sergeants reported a number of technical complications with the software. This might explain why they expressed frustration and difficulty trying to categorize, locate and view videos.

Frame structure was generally consistent; however, officers differed in the various conditions and consequences they chose to discuss. All of the officers discussed ease of use, public complaints, officer availability, officer conduct, officer and public safety, mechanism of control, counter-surveillance and cost. Most officers discussed privacy, court and citizen conduct. Only a few officers discussed enhanced accountability and transparency, and procedure. Frame content was also generally consistent amongst officers; however their values on the structure of officer conduct differed. In regards to ease of use, officers agreed that they experienced difficulty activating the camera during high-intensity situations. Officers also agreed that BWCs protected them from false allegations of misconduct and this provided them with a sense of comfort and reassurance. In regards to officer availability, officers felt that BWCs created extra work and consequently, removed them from their daily duties and prevented them from conducting important police work such as responding to calls. Officers also shared similar

values on viewing the BWC as a mechanism of control. Most officers felt that it reinforced micromanagement and reflected internal mistrust of officers. Finally, officers viewed BWCs as a tool of surveillance that can be leveraged to alleviate public recording of police activity.

While officers shared similar values on the structures mentioned above, they did not agree on how BWCs would impact officer conduct. Officers mentioned several ways that BWCs can impact officer conduct including: limiting officer discretion, acting more “by the book”, behaving in a more polite and gentle manner, refraining from proactive policing and investigative work and fidgeting with the camera. There are no significant differences in officer’s views across divisions and those who identify as visible minorities.

The officers’ frames are considered to be mostly congruent. While officers generally shared the same values on various frame structures, frame incongruence was observed in values relating to officer conduct. This may indicate that BWCs will impact officer conduct in a variety of ways; a topic that will be discussed in greater detail below. There was also internal incongruence amongst officers in values relating to officer conduct. For instance, a few officers believed that BWCs would lead to officers behaving in a more polite and gentle manner as well as in a more strict and procedural manner. These views held by the same officer are inconsistent and therefore reflect internal incongruence. As Orlikowski and Gash (1994) suggest, frame incongruence may lead to non-compliance, breakdown in communication and misuse of technology. In addition to these potential risks, there are also several other important implications to consider. For example, one of the most common concerns expressed by officers was the ease of activating the device. This finding supports previous research that reported negative officer views on ease of use/activation (Edmonton Police Service, 2015; Royal Canadian Mounted Police, 2015; Janne et al., 2016; Pelfrey Jr & Keener, 2016; Toronto Police Service, 2016). In the present study, officers reported several instances where the device failed to activate or the officer

forgot to turn the camera on. This is highly problematic considering that if the camera doesn't turn on, then it fails to serve its primary function: the recording of police-citizen interactions. Officers also described various consequences associated with the impact of BWCs on officer conduct and its potential to be used as mechanism of control. The following conditions/consequences will be discussed in greater detail below.

Police-Community Relationships

Existing research suggests that BWCs have the potential to improve police-community relationships due to their perceived ability to provide increased police transparency and accountability as well as reduce police use of force and citizen complaints (Ariel et al., 2015; Katz & Kurtenbach, 2014; Mesa Police Department, 2013). I present an alternative argument and suggest that BWCs have the effect of increasing social distance between police and members of the public through several mechanisms. Consequently, the effect is thus likely to be further social isolation, rather than broad community inclusion. I begin by discussing the various mechanisms that lead to the effect of declining police-community relationships before considering the practical implications.

In previous studies, officers viewed BWCs as a means for increasing liability and limiting officer discretion (Ariel, 2016; Edmonton Police Service, 2015; Toronto Police Service, 2016). The effect is that officers may modify their behaviour in order to appear consistent and professional (Edmonton Police Service, 2015). While this behaviour is considered desirable, it may produce unwanted effects. For example, Edmonton (2015) officers reported acting more "robotic" during their interactions with the public and felt that this removed the "human touch" that is necessary for building rapport with community members. Similarly, officers in the Toronto (2016) study reported being less likely to use discretion and more likely to act "by the book" when equipped with a BWC. Consequently, officers felt that it changed the way they dealt

with the public in the sense that they chose their words more carefully, couldn't speak "as freely" and couldn't excuse minor-infractions (Toronto Police Service, 2016, pp. 35).

In the present study, officers also reported acting more "robotic" because they felt a heightened need to be perceived as completely impartial at all times. Similar to the Edmonton (2015) and Toronto (2016) studies, officers in the present study believed that the methodical and mechanical nature of such behaviour removed the "humanistic" element out of police-citizen interactions. Officers also reported the need to follow strict procedure, even when it wasn't always appropriate to do so. As a result, officers gave out fewer warnings and some reported being less helpful to individuals who had questions about their stop or arrest. This was due to the belief that they would be ridiculed by their supervisors and in court for granting warnings and providing misleading or inaccurate advice. Other officers reported behaving in a more gentle and polite fashion out of fear of being criticized for behaving too aggressively. Similar to the Toronto (2016) study, officers felt that they had to choose their words carefully and resist using language or techniques they would have normally felt comfortable using prior to being equipped with a BWC. Interestingly, officers also felt that BWCs can discourage effective police work. Several officers reported that they might refrain from proactive policing or investigative work out of fear of being reprimanded. While both Edmonton (2015) and Toronto (2016) studies reported similar findings, Ready and Young (2015) found that officers equipped with BWCs initiated more interactions with citizens than comparison officers.

While previous studies reveal important insight into the impact of BWCs on officer conduct, the studies do not expand on the significance of such findings in the broader context of police-community relationships. Consequently, the importance and impact of such effects have not been fully realized. As mentioned above, officers in the present study believe that BWCs have the potential to hurt police-community relationships due to officers using less discretion,

following strict procedure, behaving in a more polite and gentle fashion, and refraining from effective police work. This change in officer conduct is not due to any particular benevolent motivation; rather it appears in this study that most officer conduct is motivated by the concern to avoid ridicule and reprimand. This is precisely what previous studies have failed to acknowledge. Previous studies have found that BWCs lowered the number of instances of police use of force and citizen complaints against police, and therefore have the potential to improve police-community relationships (Ariel et al., 2015; Katz & Kurtenbach, 2014; Mesa Police Department, 2013). The conclusions drawn from these studies are problematic because they do not consider the motivations that lead officers and members of the public to change their behaviour. Indeed, it may not simply be the presence of a BWC that motivates officers and citizens to alter their behaviour; it is the fear of being ridiculed, reprimanded and potentially charged with a criminal offence. These motivations do not foster positive police-community relationships; rather they cultivate behaviour that creates social isolation amongst officers and the public.

Indeed, officers are more concerned with *appearing* “perfect” rather than actively *engaging* with members of the public and building a rapport with people in the community. This leads to behaviour that is characterized by elements of heightened procedure, conformity and detachment - all militaristic elements that lead to bureaucratic ‘robocops’ who are disengaged, insensitive and mechanical. As a result, officers become more isolated from the communities they work in while members of the public harbour growing skepticism and distrust. As mentioned in the Toronto (2016) study, this can potentially prevent an officer from building meaningful relationships and understanding the community they work in – and of conducting effective crime prevention/harm reduction.

A second way that BWCs can potentially harm police-community relationships is by causing officers to become distracted as a result of concentrating on the camera. The Edmonton

(2015) study describes a situation where a project coordinator observed an officer reacting to a subject who quickly attempted to throw a punch at the officer. In the study, the coordinator noted that “had the member even thought for a second about turning on a camera the punch would have been thrown” (pp. 38). In the present study, officers reported fidgeting with their camera, checking if it’s on or off and readjusting it to get a better angle. This raises a concern that officers might find themselves too busy with the camera to notice what’s going on around them. Consequently, they may appear unapproachable and disconnected to members of the public. In addition, this can potentially lead to slower and less effective police responses, thereby jeopardizing both officer and public safety.

Third, BWCs also impact public behaviour in ways that can lead to increasing social distance and further social isolation. There is concern that some members of the public may not approach officers because they do not want to be video and audio recorded. In the Edmonton study (2015), almost half of the officers who participated in the pilot project said that BWCs had impacted informal conversation with the public; 96 percent of this half said that it caused individuals to become less willing to engage in conversation. In the present study, officers felt that when equipped with a BWC, citizens were at times less likely to approach them. This could be the case if people don’t want to share private information while being video and audio recorded. Individuals also might not want to share tips on criminal cases out of fear of being further implicated or somehow prosecuted. For some, simply the thought of their face ending up in a police database is reason enough not to approach an officer. In the Toronto (2016) study, 69 percent of officers surveyed at the end of the pilot project felt that BWCs affected a person’s decision to approach officers with information. From these officers, 90 percent felt that people were less likely to provide information when officers were equipped with BWCs. Officers also noted that some people appeared uncomfortable and fixated on the camera. As one Traffic officer

stated, “They look at the screen and it’s almost like deer in headlights. They give me the documents. They just hand it out.” Another officer stated that some members of the public stop engaging with the officer altogether and start speaking to the camera.

Finally, BWCs also increase social distance amongst officers themselves and other first responders. In the Edmonton study (2015), officers reported that non-users and first responders, particularly mental health workers and Emergency Medical Service personnel were hesitant to support BWCs and expressed concern when the camera was recording. However, at other times the presence of BWCs was welcomed. While officers in the present study did not mention first responders, several officers felt that officers who were not equipped with BWCs did not support their use. Indeed, officers in present study reported that officers who weren’t equipped with a BWC during the pilot project appeared weary and uncomfortable when BWC officers arrived at a scene. Consequently, BWC officers typically “warned” other officers when they were recording in order to alleviate their discomfort. Some officers also noted that plainclothes officers will be less likely to share information about an investigation to BWC officers while others will avoid BWC officers altogether. As one officer stated, “They hated it when we were around. Didn’t want us around. It’s like the spooky ghost.”

While the present study identifies various ways that officers change their behaviour, it differs from other studies by providing insight into *why* officers feel compelled to alter their behaviour. Indeed, when considering the impact of BWCs on police-community relationships it crucial to understand not only the actions of the officer, but also the motivations that shape their behaviour. In the present study, officers reported that officers and the public changed their behaviour mainly due to the fear of being ridiculed, reprimanded or potentially charged with a criminal offence. Consequently, this cultivated a censored environment where officers and members of the public felt nervous and compelled to behave according to strict procedures and

socially-desirable norms. This led officers to become fixated on presenting the “best” version of themselves while some members of the public stopped speaking and engaging with officer’s altogether.

When police officers become isolated from their communities, the public and police officers suffer. At stake is officer health and morale - something that is already dwindling in many police forces. Officers may begin to experience a loss in meaningful community relationships, strained public interactions and lacking police work. Consequently, officers can become disengaged, insecure and unmotivated. As officers begin to internalize these emotions, they embark on a repetitive pathway that only leads to further isolation. Despite the promise of bringing people together, BWCs serve as a reminder that technology can make people more disconnected than before. Consequently, the promise of transparency might come at the expense of officers and citizens who are more focused on the camera than each other.

Regaining Control over Police Visibility

Recent studies have found that officers view BWCs as a tool that can be used to counter negative portrayals of police in the media (Morgan & Silverstone, 2017) as well as internal criticism by their superiors (Ariel, 2016; Toronto Police Service, 2016). I expand on these findings by arguing that officers are using BWCs to gain greater control over police visibility and are therefore, internalizing the surveillant gaze of both the public and the state. As I will discuss, BWCs have become a “defence-mechanism” for officers who wish to combat public exposure and scrutiny of police activity. In considering that surveillance is typically exercised by the police and consumed by the public, the findings suggest that the shifting nature of surveillance bears several implications worth considering.

The existing literature on surveillance typically portrays surveillance as having undergone four stages. In the first stage, traditional police power is demonstrated through controlling its own visibility while monitoring the actions of those characterized as subordinate or deviant (Mann, Nolan & Wellman, 2002). At this stage, the public is considerably resistant and skeptical of surveillance due to its traditional top-down approach where the state assumes the role of the “watcher” and the public assumes the role of the “watched”. In the second stage, the consciousness of being watched is normalized to the extent that the public has internalized the surveillant gaze of the state (Marx, 2006; Foucault, 1975). Here, the most fundamental aspect of the panopticon is achieved: simply knowing there is a possibility of being watched leads individuals to constantly observe both themselves and those around them in order to ensure compliance with laws and social norms at all times (Brucato, 2016). In the third stage, the concept of “sousveillance” emerges as a term used to describe the inverted state of surveillance whereby citizens begin to observe the state (Brucato, 2016). Using mobile video recording devices, citizens assume greater control over police visibility by rendering police activity transparent (Brucato, 2016). According to Newell (2014), this has led to “fierce objection by officers who do not wish to be recorded” and provides the media with material that can be used to damage public perception of police (pp. 62).

In the fourth and final stage, the state internalizes the surveillant gaze of both the public and the state. Similar to the previous stage, officers are aware of “citizen-initiated video surveillance” and the public’s significant control over police visibility and transparency (Newell, 2014, pp. 60). However, now officers have begun to internalize this feeling to the extent that it directly impacts their behaviour. Recent studies on BWCs and police visibility have already suggested that the internalization of public scrutiny of police activity prompts officers to self-regulate their behaviour (Ariel et al., 2015; Newell, 2014). Brucato (2016) argues that this same

internalization has led officers to use BWCs in a way that is meant to “nullify sousveillance footage” (Brucato, 2016, pp.5). While Brucato (2016) touches on this point very briefly, I believe it deserves further consideration. Indeed, I wish to expand on this point by arguing that officers have internalized the surveillant gaze of both the public and the state to the extent that officers are using BWCs to assume greater control over police visibility and combat public exposure and scrutiny of police activity. I discuss the significance of officer’s internalizing the surveillant gaze of the public and the state separately before moving on to the resulting implications.

In the present study, officers acknowledged that the “sousveillant” gaze of the public is exercised through civilian-initiated video recording. Indeed, officers expressed not only their consciousness of being recorded by civilians but also described the overwhelming and at times daunting reoccurrences of such recordings. While they conveyed their ultimate defeat and acceptance of being recorded by citizens, they also expressed frustration with having to conduct their investigations and arrests while being filmed by bystanders. As one officer stated, “I find that we are going to arrest somebody I’ll have 12 people filming and I’ll ask for help but they just keep on filming. It’s almost like the world wants to see you fail.” Ultimately, their acceptance and constant awareness of civilian-initiated video recording and public scrutiny indicates that officers have internalized the surveillant gaze of the public. In fact, officers have internalized this feeling to the extent that they are now utilizing BWCs to counter the public’s exposure of police activity. Indeed, the ultimate appeal for officers is that they now have control over the video recording and footage which helps to alleviate the discomfort and objection they feel towards being recorded by citizens.

In particular, officers suggested that BWCs help “level the playing field” or as Brucato (2016) points out, “nullify sousveillance footage” (pp. 5). According to Sandhu (2016), “The police recognize that video footage can be used to launch complaints against police, and that they

might result in the loss of employment opportunities. Furthermore, embarrassing videos can earn officers criticism resulting in shame, stigmatization, and the loss of employment opportunities” (pp. 88). It is for these reasons that officers tend to employ tactics that are intended to nullify sousveillance. For example, previous reports suggest that officer tactics include blocking cameras, preventing citizens from recording and avoiding cameras (Sandhu, 2016). However, recent studies suggest that BWCs are now being used as a tool to counter civilian recording of police activity. In a recent study that interviewed 149 City of London police officers on their perceptions of BWCs, Morgan and Silverstone (2017) found that officers enjoyed the camera’s potential to counter public exposure of police activity. As lead author Morgan describes, “The participants of this study wanted their own footage to counter negative portrayals of the police which might be found on social media, having their perspective and experiences better understood by the wider public” (London Metropolitan University, 2017, pp. 1).

Similarly, officers in the present study believed that BWCs can be used to “level the playing field”. When officers were asked to explain what they meant by this, their responses sounded defensive and combative. For example, one officer stated, “There are times when I'm doing a vehicle stop and it's being recorded. I don't care. I'm recording you, you record me.” Another officer stated, “Hey how are you? Are you recording? So am I. Well she shut up and walked away.” This suggests that BWCs are utilized as a “defence-mechanism” by officers who wish to combat public exposure and scrutiny of police activity. Officers also indicated that BWCs enable them to show members of the public the entirety of a particular event. Again, officer’s fixation on “getting their perspective out there” and showing the public “their side” alludes to the idea that BWCs are being used as a tool to combat public scrutiny. In fact, officers described wanting improved and better cameras in terms of improved battery life, clearer video and audio and easier activation features in order to achieve the “best” recording.

In addition to internalizing the “sousveillant” gaze of the public, officers are also internalizing the surveillant gaze of the state. As previous studies suggest, officers have come to view BWCs as a “mechanism of control” used to monitor officers, thereby solidifying their existing feelings of mistrust by both the public and their superiors (Ariel, 2016; Toronto Police Service, 2016). In the Toronto (2016) study, 76 percent of officers surveyed at the end of the pilot project were concerned that BWCs will be used for internal monitoring of officers. Stanley (2015) also points out that officers have expressed concern over the potential of BWCs to initiate “supervisory fishing expeditions” in which supervisors view BWC recordings in hopes of uncovering footage that can be used against rank-and-file officers, especially whistleblowers or union representatives. In the present study, officers also expressed concern about the potential for BWCs to contribute to the ongoing monitoring and micromanaging of officers. A few officers suggested that such activity has led to an internal culture of fear whereby officers feel pressured to act in accordance to unrealistic standards of professionalism. While these findings are consistent with previous research findings (Ariel, 2016; Toronto Police Service, 2016), the present study also found that officers are using BWCs to counter internal monitoring and criticism of officers. Indeed, officers have internalized feelings of fear and mistrust to the extent that they are using BWCs to show their supervisors that they are behaving properly and professionally. As one officer stated, “Go ahead. Film me. I have nothing to hide.” This is particularly interesting considering that surveillance is typically exercised by the police and consumed by the public. In this case, officers have internalized the surveillant gaze of the state to the extent that they are aware that they are being monitored by their superiors and are using BWCs to counter any potential internal criticism.

In presenting the fourth stage of surveillance, I don’t argue that previous stages are somehow nullified. In fact, it is the contrary. I argue that there are various forms of

surveillance/sousveillance that simultaneously cohabit any given space at any given time. Mann and Ferenbok (2013) refer to this simply as “veillance”; a term used to describe the “monitoring of modern societies through technological mediation of its citizens, members, and groups etc., both from above (i.e. those in high places watching those in low places) and from below (i.e. those in low places watching those in high places)” (pp. 19). The key word here is “technological”. Indeed, it is the digitization of modern watching that has enabled surveillance/sousveillance to push well beyond its traditional reach and become more “diversified” (Mann & Ferenbok, 2013). As Mann and Ferenbok (2013) explain, an officer listening to a recorded civilian telephone conversation with their eyes closed from the basement of their headquarters is still exercising a form of surveillance despite being physically “below” and not using their sight. Further, these forms of “veillance” are constantly shifting, changing and evolving depending on the motivations of the individuals who are exercising “veillance”. For example, BWCs can be used as a surveillance tool by police officers to monitor the public and as a sousveillance tool by citizens to monitor the police. Therefore, as technology evolves our understanding of what constitutes “surveillance” and “sousveillance” may inevitably become blurred.

The shifting nature of surveillance bares several implications worth considering. For one, there is a concern that BWCs advance privileged perspectives held by officers and silence those held by individuals who are subordinate. As Brucato (2016) suggests, “These cameras are intended to take advantage of the legally and culturally privileged perspective of officers, particularly when they use violent force” (pp. 5). There is an important link here to “reverse position of privilege”. By suggesting that officers have somehow become “victimized” by the media and some members of the public, they are able to regain control over public exposure and scrutiny of police activity. Within this narrative, there is an underlying paradox that paints police

officers as powerless and in need of regaining control. Squillacote and Feldman (n.d.) suggest that this is particularly concerning as we tend to identify with the person behind the camera – which in the case of BWCs would be the officer. Therefore, if oversight bodies, courts and the public identify with the officer’s point of view, the more advantageous position held by the officer will be favoured over those who are subordinate.

Second, Newell (2014) suggests that officers who use BWCs to counter citizen-initiated recording are essentially fulfilling a “gatekeeper” role and consequently, limit the effectiveness of citizen oversight. According to Newell (2014), now that police services have control over BWC video footage, they are also in control of deciding when and who to release that footage to. As Newell points out, in the past, police services have refused to release video footage to attorneys, media organizations and citizens due to privacy concerns. Consequently, civilians are not provided with the material necessary for exercising their right to practice oversight.

Chapter 6: *Helpful when things go right and hurtful when things go wrong: Conclusion*

6.1 The Scholarly Significance of the Present Study

While the existing research on officer perceptions of BWCs is limited, it provides important insight into how officers view the perceived conditions and consequences of BWCs as well as their overall level of support. Several studies have found that officers are generally in support of their agencies adopting BWCs (Edmonton Police Service, 2015; Jennings et al., 2014; Katz & Kurtenbach, 2014; Pelfrey Jr & Keener, 2016; Toronto Police Service, 2016) while fewer studies have found a low to moderate level of officer support (Smykla, 2016; Janne et al., 2016; Miller et al., 2014). The existing research also demonstrates that officers identified several perceived benefits associated with the use of BWCs including: the potential to improve officer behaviour (Jennings et al., 2014), increased professionalism (Edmonton Police Service, 2015; Toronto Police Service, 2016), the potential to protect officers from false complaints (Edmonton Police Service, 2015; Toronto Police Service, 2016) and the potential to improve quality of evidence (Katz & Kurtenbach, 2014). However, officers also reported several consequences including: technological failures (Edmonton Police Service, 2015; Toronto Police Service, 2016), privacy concerns (Pelfrey Jr & Keener, 2016), cost (Pelfrey Jr & Keener, 2016), the potential to be used as a mechanism of control (Ariel, 2016); limits officer discretion (Ariel, 2016; Edmonton Police Service, 2015; Toronto Police Service, 2016), as well as little to no impact on officer safety (Jennings et al., 2014; Toronto Police Service, 2016), citizen behaviour (Janne et al., 2016), and their own behaviour (Edmonton Police Service, 2015; Jennings et al., 2014).

What has been clear is that studies have been effective in identifying officer's views on the perceived conditions and consequences associated with the use of BWCs as well as their level of support; however, the existing research falls short on explaining how officers arrive at their perceptions and how this impacts their use of BWCs. I suggest that this limitation is largely due

to the fact that existing research does not use a theoretical framework to inform their methodology or analysis. Knowing this, I used the TFR framework to better understand Toronto police officer perceptions of BWCs and how this impacts their use of BWCs. Recent studies have used the TFR framework to assess individual's perceptions of various technologies in policing organizations (Lum et al., 2015 Sanders & Henderson, 2013), but it is yet to be used in peer-reviewed studies exploring officer perceptions of BWCs. By using the TFR framework, I was able to uncover the sensemaking process used by officers, assess for incongruence in their technological frames, and understand how their frames impacted their use of BWCs.

In doing so, the present study discovered several important findings that previous studies have been unable to uncover. As discussed in chapter 2, the present study set out to uncover how officers perceive the capabilities and functionality of BWCs, the motivations that led to the adoption of BWCs, and the conditions and consequences associated with their use. In using the TFR framework, the present study found that officers consistently pointed to a single capability: the recording of police-citizen interactions. Indeed, officers adopted a very broad understanding of the camera's capabilities because they internalized the organizational context from which the cameras emerged; namely, the political push for increased police transparency and accountability. Since officers over emphasized a single broad capability of BWCs, the study found that other capabilities were not used as effectively and some completely abandoned altogether such as the categorization of videos. This suggests that when officers adopt a narrow understanding of the camera's capabilities, it can potentially lead to ineffective use. In turn, this can create extra work for both constables and sergeants and consequently, prevent officers from responding to calls and carrying out their daily duties.

The present study also sought to answer how officers perceive the motivations/decision of their organization to adopt BWCs. The study found that while training typically informs people's

perceptions about technology strategy (Orlikowski & Gash, 1994), officers did not reference any formal communication they received during training when discussing the motivations that led to the adoption of BWCs. Instead, their sensemaking process was predominantly informed by pre-existing knowledge and assumptions drawn from media sources. As predicted by Orlikowski and Gash (1994), officers developed skeptical views on the potential of BWCs and adopted a simple understanding of its use. Officers also regarded BWCs as a tool they *had* to use due to technological advancement and political pressure instead of a tool they genuinely *wanted* to use due to their perceived benefits. This might explain why in previous studies, officers reported moderate to high levels of support for the use of BWCs because they felt they had no matter in the choice. These findings suggest that effective training and formal communication are integral components to fostering favourable officer perceptions regarding their organization's decision to adopt BWCs. In turn, this may lead to more effective use of BWCs once officers realize their potential extends beyond "keeping an eye" on the police.

The final research question sought to uncover how officers understand the conditions and consequences associated with the use of BWCs. The study found that in addition to interacting with the technology on daily basis, officers' sense-making process was informed by training and their understanding of the capabilities and functionality of BWCs. Specifically, several officers referenced scenario or task-based learning as an approach used during training. While officers felt that training was useful for knowing how to use the device, it was less effective in training officers how to use BWCs in high-intensity situations. Consequently, some officers failed to turn their camera on during high-intensity situations because it wasn't a "natural reaction" or their focus was solely directed towards resolving the situation. Some officers also felt that the training did not provide clear instructions in regards to accurate note-taking. This might explain why officers reported feeling frustrated and spending extra time completing paperwork and taking

notes. Officers also questioned several procedures that prevented them from enforcing the camera's main capability; namely the recording of police-citizen interactions. For example, some officers questioned the need to notify the public that the camera was recording as it "wasted time" and limited their ability to capture "first-accounts". Some officers disagreed with asking permission to record in a private residence and turning the camera off at a party's request while in a private residence. Their perceptions on the functionality of BWCs also impacted their subsequent use of BWCs. For example, the sergeants reported a number of technical complications with the software. This might explain why they expressed frustration and difficulty trying to categorize, locate and view videos.

Assessing for frame incongruence is an integral component of the TFR framework. While the sample size is too small to represent the views of the entire Toronto police service, it provides important insight on whether officers in the present study shared similar frame structure and content. Officers in the present study shared congruent frames suggesting that their views on the nature of technology, technology strategy and technology-in-use were consistent. Therefore, officers' frames are considered to share "a reasonable amount of implicit agreement" amongst key categories and attitudes (Orlikowski & Gash, 1994, pp. 181). However, it is worth noting that in regards to technology-in-use, only a few officers mentioned procedure and improved accountability and transparency as a condition associated with the use of BWCs. This is particularly interesting given that one of the main perceived benefits associated with BWCs is their potential to render police activity transparent and hold officers to account. This may indicate that officers viewed other conditions and consequences as more significant. Officers also shared different views on how officer conduct would be impacted. Indeed, officers mentioned several ways that BWCs can impact officer conduct including: limiting officer discretion, acting more "by the book", behaving in a more polite and gentle manner, becoming distracted by the camera,

and refraining from proactive policing and investigative work. This may suggest that how officers respond to the use of BWCs is individualistic and unique. There were no significant differences in officer's views across divisions and those who identify as visible minorities. While Orlikowski and Gash (1994) suggest that frame congruence minimizes the likelihood of non-compliance, breakdown in communication and misuse of technology, there were still several complications associated with the use of BWCs. This suggests that frame congruence is not always the most appropriate predictor for effective use of technology. Indeed, frame congruence should always be considered in light of the various issues identified by officers in frame content. The practical implications will be discussed below.

6.2 The Practical Significance of the Present Study

Since BWCs are a relatively new phenomenon (White, 2014), the existing research that attempts to explore officer perceptions of BWCs is limited and provides only a baseline understanding. As mentioned above, previous studies have been effective in identifying officer's views on the perceived conditions and consequences of BWCs as well as their overall level of support. However, this emphasis on how officers perceive the conditions and consequences associated with the use of BWCs limits our understanding of how officers perceive the capabilities and functions of BWCs as well as the motivations that led to their adoption. To date, only two studies have examined officer perceptions of the capabilities and functions of BWCs (Edmonton Police Service, 2015; Toronto Police Service, 2016) while only a single study uncovered findings in relation to how officers understand the motivations that led to their adoption (Smykla et al., 2016).

Existing research has also been less effective in uncovering officer perceptions of the social significance of BWCs and providing in-depth analyses of such findings. For one, all of the existing studies use surveys to understand officer perceptions of BWCs (Edmonton Police

Service, 2015; Janne et al., 2016; Jennings et al., 2014; Miller et al., 2014; Pelfrey Jr & Keener, 2016; Smykla et al., 2016; Toronto Police Service, 2016). Consequently, officer perceptions are limited to pre-determined responses that are developed by survey administrators and not officers themselves. Second, studies that use interviews in addition to surveys (Ariel, 2016; Edmonton Police Service, 2015; Toronto Police Service, 2016), to assess officer attitudes of BWCs typically do not ask questions that reach beyond situational and technical matters, thereby limiting our understanding of the social significance of BWCs. For example, existing studies have uncovered several important findings in relation to officer perceptions of BWCs, but they often lack detailed analysis and connection to broader issues such as police-community relationships and surveillance. Third, some studies do not use an independent body to develop, administer and conduct surveys and interviews (Edmonton Police Service, 2015; Toronto Police Service, 2016). Consequently, officers may feel the need to provide responses that reflect the values of their police service out of fear of being judged or ridiculed. This may inadvertently lead to less authentic accounts of police officer perceptions.

In order to address the limitations in the existing research, the present study sought to uncover how officers perceive the capabilities and functions of BWCs, the motivations that led their organization to adopt BWCs, as well as the conditions and consequences associated with their use. In order to uncover in-depth and authentic officer accounts, I conducted semi-structured interviews which allowed officers to assume greater control over the direction of the conversation. In addition, the interviews were conducted independently from the Toronto Police Service, thereby minimizing the risk of acquiring unauthentic accounts.

In doing so, the present study uncovered several important findings regarding the social significance and practical implications of BWCs. In regards to the nature of technology, officers felt that both of the BWC models tested during the pilot project were inadequate. Their primary

concerns included: insufficient battery life, difficulties associated with charging the battery, objectivity of video footage, and minor complications with video and audio. The findings from the present study are similar to both the Edmonton (2015) and Toronto (2016) studies which found that officers reported a number of technological issues associated with various BWC models. BWCs are a major financial investment. If police services are considering the adoption of BWCs, they must use their due diligence to ensure the purchasing of technologically sound and easy-to-use models. This will improve the likelihood that BWCs are used to their full potential and will limit added stress and work for officers.

In regards to the technology strategy, the present study found that training had little impact on how officers understood the motivations that led to the adoption of BWCs. Consequently, officers were skeptical about the potential of BWCs due to the belief that BWCs are a tool primarily used to “keep an eye on the police”. Moving forward, program administrators should make a genuine effort in developing effective training and formal communication that dispels media sensationalism and emphasizes how BWCs benefit both officers and the public. This will limit skepticism amongst officers and create consistency amongst program administrators and front-line officers in regards to their views on the motivations that led to the adoption of BWCs. In turn, this will improve the likelihood that BWCs are being used effectively and to their full potential.

In regards to technology in use, the present study found that officers reported difficulty in ease of activation, especially in high-intensity situations. Officers also believed that BWCs impact officer and citizen conduct in ways that can lead to deteriorating police-community relationships. Lastly, officers reported using BWCs to gain greater control over police visibility and are therefore, internalizing the surveillant gaze of both the public and the state. Moving forward, police services considering BWC programs should involve front-line officers during the

early stages of its development and execution. This provides an opportunity for greater involvement from front-line officers which may help foster officer-buy-in (Janne et al., 2016).

Second, training should incorporate scenario-based training to prepare officers for turning on their cameras in high-intensity situations in a way that it will become an immediate and natural reaction. Understandably, this may require officers to use the cameras for a lengthy period of time before developing the appropriate muscle memory required for activating the camera in dynamic situations.

Third, training and formal communication should emphasize that BWCs are not intended to limit officer discretion and be used as a tool for micromanagement, criticism, and discipline—only if the police service genuinely believes this to be true. Indeed, several of the issues identified by officers in relation to police-community relationships and greater control over police visibility stemmed from feelings of fear, mistrust and the desire to demonstrate high standards of professionalism. If officers are provided with genuine reassurance that the BWCs are not intended to be used *against* the officer, this may help alleviate some of the issues. Aligning frames may also alleviate the inconsistencies found in officer's frames relating to the impact of BWCs on officer conduct. Davidson (2006) suggests that in order to develop frame congruence, organizations should consider imposing a dominant frame that reflects managerial goals. For example, a training program might consistently deliver the message that BWCs should not limit officer discretion and will not be used for micromanaging. Davidson (2006) also suggests that identifying frame incongruence prior to the commencement of program implementation is useful for understanding how to develop a dominant frame. For example, police services may conduct a study to run a diagnostic on how officers views BWCs prior to developing a training program.

6.3 Limitations and Future Research

Future research examining officer perceptions of BWCs should consider using a

theoretical framework to guide their study design and analysis. In turn, future studies will be better positioned to uncover the sense-making process used by officers, assess for incongruence in their technological frames, and understand how their frames impact their use of BWCs. In particular, future studies should assess for congruence between front-line officers, senior officers and program administrators. Second, future research should consider incorporating a mixed-methods approach to address the limitations of qualitative research and specifically, semi-structured interviews. As mentioned in chapter 3, semi-structured interviews may not be reliable for a variety of reasons and consequently should only be treated as socially constructed perspectives rather than “ultimate truths”. Therefore, police services implementing pilot project studies should incorporate both perception and outcomes-based approaches to understanding the value and use of BWCs.

Third, since the present study is explanatory in nature and includes a small sample size that did not include female officers, the findings cannot be generalized to reflect the perceptions of all officers in the Toronto Police Service. More importantly, the findings *should not* be generalized to reflect the perceptions of officers in other police services. If anything is to be gained from Janne and colleague’s study (2016), it is that every police service is unique and what is appropriate for one police service may not be appropriate for the other. Further, a study on the impact of BWCs in one police service may produce opposite results in another police service simply because their policing landscapes are different (Ariel, 2016). With that being said, police services that are considering adopting BWCs should conduct separate pilot projects to test the effectiveness and appropriateness of BWCs for their police service (Miller et al., 2014). Future research should also incorporate larger sample sizes to include more representative samples. This will also enable researchers to assess for incongruence in technological frames more effectively.

Fourth, future research should consider examining how BWCs impact officer conduct

beyond existing narrow measurements that include: number of arrests made, number of warnings given out and instances of use of force. Instead, future research should adopt a qualitative approach to examining how officers modify their behaviour when equipped with a BWC. Methods may include interviews, participant-observations and ethnography. This might help reveal more subtle changes in behaviour such as the conduct mentioned in this study including: behaving in a more polite and gentle manner, acting more “by the book” and becoming distracted by the camera. Lastly, future research should use a qualitative approach to understand public perceptions of BWCs—an area that is highly underdeveloped. While officers in the present study believed that the public is less likely to approach officers wearing a BWC, more research is required to understand if members of the public share similar views.

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Appendix A

I am a graduate student currently in the process of conducting a research study for my Master's thesis in Criminology at the University of Ottawa. This research study will examine police officer perceptions of the use of body-worn cameras. More specifically, this research is interested in uncovering how police officers understand the emergence of body-worn cameras, the technical use of body-worn cameras, the perceived effects of body-worn cameras and lastly, any concerns you may have about using body-worn cameras. This study will provide insight on police officer perceptions of body-worn cameras and it will allow, police officers like you, to express your views on the use of body-worn cameras as well as any concerns.

I am looking for a total of 10 police officers who participated in the body-cam pilot project to partake in a single face-to-face interview that will last approximately 45 - 60 minutes. I will ask you to answer five open-ended questions about your understanding of the emergence of body-worn cameras, the technical and procedural use of body-worn cameras, the perceived effects of body-worn cameras, your concerns about using body-worn cameras and lastly, how body-cams have personally affected you. The interviews will be audio-recorded. This study will ensure complete confidentiality and anonymity. Further, taking part or not taking part in the study will not affect your status or any services you receive at the Toronto Police Service. This study is independent from the Toronto Police Service and it will not know the identity of any participants.

I will be choosing who I want to participate based on pre-established criteria. I am looking for:

2 non-visible racial minority female police officers

2 visible racial minority female police officers

1 female police officer who holds the position of either Sergeant or Staff Sergeant

3 female police officers who hold the position of Constable

1 female police officer in each of the following divisions: TAVIS, 43 Division, and Traffic Services, 55 Division

3 non-visible racial minority male police officers

3 visible racial minority male police officers

2 male police officer who holds the position of either Sergeant or Staff Sergeant

4 male police officers who hold the position of Constable

1 male police officer in each of the following divisions: TAVIS Traffic Services

2 male police officers from 55 Division and 43 Division

You do not have to fit all of the criteria. If you identify with only two of the identifying characteristics, you will still be considered an eligible participant. If you decide you are interested in participating please contact me using your personal email address as soon as you are available as participants will be chosen on a first-come first-serve basis. Please be aware that all communication will be done through your personal email address. Once the participant positions are filled for a certain criteria, that criteria will be considered complete and I will no longer be looking to fill that criteria.

Prior to the interview, I will send you the consent form two weeks ahead of time so you are able to read it over and follow up with any comments or questions you may have. The interview will take place in a location of your choice in order to ensure convenience and comfort. We can work out the details when the time comes. If you are interested in getting more information about taking part in the study please contact me directly by using my telephone number or email address at naksi099@uottawa.ca.

Sincerely,

Nevena Aksin

Appendix B

- 1) How do you think body-worn cameras came to be?
- 2) What are the advantages and limitations of the procedural and technical aspects of body-worn cameras?
- 3) What kind of effects do you think body-worn cameras will have?
- 4) What are your concerns with using body-worn cameras?
- 5) How do you think body-worn cameras have affected you personally?

Appendix C



Consent Form

Police Officer's Perceptions of Body-Worn Camera

Nevena Aksin

Researcher

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Michael Kempa

Supervisor

University of Ottawa | Faculty of Social Sciences | Department of Criminology
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(613) 562-5800 ext. 2572

Invitation to Participate: I am invited to participate in a research study. This research is being conducted for a Master's thesis in Criminology at the University of Ottawa. This study will be conducted by Nevena Aksin, a graduate student at the University of Ottawa and her Supervisor, Dr. Michael Kempa

Purpose of the Study: This study will investigate the use of video surveillance as a method for improving police legitimacy within a democratic policing framework. More specifically, this study will explore the use of body-worn cameras as the most recent response to reconstructing police legitimacy. It is particularly concerned with how police officer's perceive the use of body-worn cameras. In exploring police officer's perceptions of body-worn cameras, this study hopes to gain a better understanding of how police officer's position body-worn cameras within a democratic policing framework and subsequently, how they perceive its projected potential to provide greater transparency, accountability and legitimacy.

Participation: This study will require me to partake in a single face-to-face interview that will last approximately 45 - 60 minutes. The interview will take place in a location of my choice in order to ensure convenience and comfort and will be audio-recorded. I will answer five open-ended questions about my understanding of the emergence of body-worn cameras, the technical and procedural use of body-worn cameras, the perceived effects of body-worn cameras, my concerns about using body-worn cameras and lastly, how body-cams have personally affected me.

Risks: While the interview questions do not touch on overly sensitive matters, this research may cause psychological and emotional discomfort. In the event that I recall a negative experience, I may feel psychological and emotional discomfort. I may also experience psychological or emotional discomfort if I share information that goes against the values of the Toronto Police Service. Subsequently, I may fear being judged by my peers and colleagues.

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uOttawa

Faculté des sciences sociales
Faculty of Social Sciences

Département de criminologie
Department of Criminology

I have received assurance from the researcher that every effort will be made to minimize these risks. The researcher will provide me with a copy of the questions prior to the interview. I am also aware that I can refuse any questions that may cause psychological or emotional discomfort. Finally, a list of resources for psychological and emotional support will be provided.

Benefits: My participation in this study will provide insight on police officer's perceptions of body-worn cameras. It will allow me to express my views on the use of body-worn cameras as well as any concerns. When the study's findings are published, the results may be used by stakeholders to advance existing knowledge on the use of body-worn cameras and/or for purposes relating to training and implementation.

Confidentiality and Anonymity: I have received assurance from the researcher that the information I will share will remain strictly confidential. I understand that the contents will be used only as data for the researcher's thesis and that my confidentiality will be protected. My identity will be protected through the use of pseudo names and anonymous quotations. In addition, no identifying characteristics will be revealed such as race, gender, age, position or the neighbourhood(s) where I typically work. This study is independent from the Toronto Police Service and it will not know the identity of any participants.

Conservation of data: The data will be collected using a digital recording device and will be kept in a secure manner. The recordings will be transcribed and stored on a password-protected computer and the document itself will also be password-protected. If I wish to review my transcript, I can contact the researcher and ask her to provide me with a copy. It will be sent electronically through email using a password-protected document that is only known to the researcher and myself. The data will be preserved for five years after the thesis is completed. Subsequently, the data will be destroyed on the digital recording device and the personal laptop no later than December 31, 2023.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be destroyed immediately.

Acceptance: I _____ agree to participate in the above research study conducted by Nevena Aksin of the Department of Criminology in the Faculty of Social Sciences at the University of Ottawa, which is under the supervision of Dr. Michael Kempa.

If I have any questions about the study, I may contact the researcher or his supervisor.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5
Tel.: (613) 562-5387
Email: ethics@uottawa.ca

There are two copies of the consent form, one of which is mine to keep.

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uOttawa

Faculté des sciences sociales
Faculty of Social Sciences

Département de criminologie
Department of Criminology

Participant's signature:

Date:

Researcher's signature:

Date:



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Appendix D

File Number: 05-16-09

Date (mm/dd/yyyy): 08/22/2016



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Ethics Approval Notice Social Science and Humanities REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Michael	Kempa	Social Sciences / Criminology	Supervisor
Nevena	Aksin	Social Sciences / Criminology	Student Researcher

File Number: 05-16-09

Type of Project: Master's Thesis

Title: Police Officer's Perceptions of Body-Worn Cameras

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
08/22/2016	08/21/2017	Approved

Special Conditions / Comments:
N/A

File Number: 05-16-09

Date (mm/dd/yyyy): 08/22/2016



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University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <http://www.research.uottawa.ca/ethics/forms.html>

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <http://www.research.uottawa.ca/ethics/forms.html>

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

Signature:

Germain Zongo
Protocol Officer for Ethics in Research
For Barbara Graves, Chair of the Social Sciences and Humanities REB

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