

**Procedural Justice and the Police's Use of Personal
Protective Equipment During the COVID-19
Pandemic**

**by
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Abstract

The COVID-19 pandemic has resulted in new responsibilities for police while also introducing new accoutrements by way of personal protective equipment (PPE). This thesis examines the effects of such changes and the role of procedural justice as it relates to public assessments of police and willingness to cooperate with police during the pandemic. As part of the thesis, participants rated images of a police officer using different items of PPE on the dimensions of procedural justice and then answered survey questions about the police more broadly. The findings indicate that participants' perceptions of procedural justice are positively related to their assessments of police and willingness to cooperate with police. The findings also indicate that participants' perceptions of procedural justice can be impacted by the police's use of PPE. The thesis discusses the important practical implications of such findings for police who must continue to manage public perceptions while providing service.

Keywords: COVID-19; perceptions of police; personal protective equipment; policing; procedural justice; public health

Dedication

I dedicate this thesis to my family. Thank you for your endless love and support.

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Chapter 1.

Introduction¹

The novel coronavirus (COVID-19) and associated pandemic have presented many challenges for both the public and governmental agencies tasked with ensuring the public's health and safety. These challenges have in large part been attributed to the contagious nature of the virus and the fact that infected persons may or may not be asymptomatic, which makes any in-person contact potentially consequential (Centers for Disease Control and Prevention, 2020; Nikolai et al., 2020; World Health Organization, 2020a, b). As a result of the dangers inherent to the virus, governments worldwide mobilized quickly following the World Health Organization's declaration of the virus as a pandemic to combat its infectious spread. Such efforts led to the creation of an array of pandemic-related regulations, including self-quarantine orders, social distancing measures, gathering restrictions, and personal protective equipment mandates.

Although the implementation of pandemic-related regulations has come on the backing of best medical practices, with the intent of reducing the spread of the virus, some people have remained critical of the regulations and the societal disruptions in which they have induced. Such frustration and disapproval have in turn resulted in a variety of responses from the public, ranging from inconsistent adherence to the regulations (McCarthy et al., 2021; Murphy et al., 2020) through to the participation in "anti-mask" protests intended to combat what some perceive to be an infringement of their rights (e.g., Judd, 2021). In the absence of unanimous voluntary compliance, governments have thus begun to rely on the police to help enforce pandemic-related

¹ This thesis contains excerpts of text written by the author from the following articles:

Sandrin, R., & Simpson, R. (2021). Public assessments of police during the COVID-19 pandemic: The effects of procedural justice and personal protective equipment. *Policing: An International Journal*. Advance online publication. <https://doi.org/10.1108/PIJPSM-03-2021-0045>

Simpson, R., & Sandrin, R. (2021). The use of personal protective equipment (PPE) by police during a public health crisis: An experimental test of public perception. *Journal of Experimental Criminology*. Advance online publication. <https://doi.org/10.1007/s11292-020-09451-w>

regulations (Farrow, 2020; Jones, 2020; Murphy et al., 2020). Such undertaking has resulted in the police enforcing breaches of self-quarantine orders (e.g., Davis, 2020), indoor gatherings (e.g., Robinson, 2021; Tsekouras, 2020), social distancing in public settings (e.g., Rocca, 2020a, b), and non-essential travel (e.g., Little, 2021).

Ironically enough, however, the police's enforcement of pandemic-related regulations has itself been complicated by public criticism: because the police's involvement in more explicitly medical-related matters is largely foreign to contemporary Western society hitherto,² their responsibility to enforce these regulations has been a matter of some contention. In light of these new enforcement-related responsibilities, there is thus much reason to suggest that the public's assessments of the police may have changed during the pandemic. The plausibility of such negative assessments could be wide-reaching and have practical implications regarding police-public relations: if the public feels negatively about the utility of police and questions their legitimacy, this could also result in the public being less willing to cooperate with police.

With that being said, one element that may affect police-public relations during the pandemic involves the use of personal protective equipment, which has become both popular and mandatory in many public settings due to its efficacy at inhibiting the spread of the virus (Chu et al., 2020; Cook, 2020; Thomas et al., 2020). Consistent with this logic, police have adopted the use of such equipment as part of their routine practices. And, while the functional benefits of personal protective equipment are well understood, changes in police aesthetics can also impact perceptions of officers (Boyanowsky & Griffiths, 1982; Johnson et al., 2015; O'Neill et al., 2018; Pica et al., 2020; Simpson, 2017, 2020; Simpson & Sandrin, 2021; Yesberg et al., 2020). Given the findings from recent research that has demonstrated that the police's use of personal protective equipment can impact perceptions of officer trait ascriptions (Simpson & Sandrin, 2021), it is also possible that such equipment may implicate itself in perceptions of officer behaviour, such as procedural justice.

Although a growing body of literature has begun to examine policing during this public health crisis (e.g., Ashby, 2020; Bennett & Mazerolle, 2020; Farrow, 2020; Jennings & Perez, 2020; Jones, 2020; McCarthy et al., 2021; Nix et al., 2021; Sargeant

² The most similar instance of police involvement in Western society appears to date back to the 1918 Spanish Influenza pandemic that occurred over a century ago (Muckenfuss, 2020).

et al., 2021; Simpson & Sandrin, 2021; White & Fradella, 2020), many questions remain about public assessments of police responsibility and performance as well as cooperation with police during the pandemic. In order to address this gap in the literature, I investigate two related objectives as part of this thesis. First, I employ procedural justice, a well-trodden paradigm in policing literature, to examine factors that drive public assessments of police and willingness to cooperate with police during the pandemic. Second, I examine the implications of the police's novel use of personal protective equipment for perceptions of procedural justice during the pandemic.

In order to explore these objectives, this thesis includes six chapters. In Chapter 2, I discuss the COVID-19 pandemic and relevant policing literature to provide context for the thesis. In Chapter 3, I discuss the data and methods employed as part of the thesis, including the research participants, experimental paradigm, operationalization of variables, and analytic strategy. In Chapter 4, I present the findings from the analyses. In Chapter 5, I discuss the implications of the findings with respect to both policy and practice, highlight the limitations of the thesis, and offer future directions of research in this domain. Finally, In Chapter 6, I offer a conclusion to the thesis.

Chapter 2.

Background

2.1. Overview of COVID-19

COVID-19 is a respiratory illness that is believed to have emerged in the concluding months of 2019. Health authorities initially notified the World Health Organization (WHO) of a pneumonia of unknown cause from Wuhan, China, which would later become classified as a symptom of a novel strain of coronavirus (WHO, 2020c). By the end of January 2020, the WHO advised that the virus was a public health emergency of international concern and coined the virus, “severe acute respiratory syndrome coronavirus-2” (SARS-CoV-2; more commonly referred to as “COVID-19”³). Shortly into March 2020, with the virus continuing to spread at a rapid rate worldwide, the WHO declared the COVID-19 outbreak to be a pandemic. This declaration effectively changed the everyday lives of people across the globe (Farrow, 2020), and the effects of the virus are still prominent as of the time of this writing.

The COVID-19 virus is characterized by its highly contagious nature, which spreads easily via person-to-person contact, primarily by way of airborne mechanisms (i.e., respiratory droplets and aerosols; Centers for Disease Control and Prevention [CDC], 2020; WHO 2020a, b).⁴ For example, everyday behaviours such as coughing, sneezing, and talking generate respiratory droplets and aerosols. When a person is infected with the virus, their respiratory droplets and aerosols (which are in turn also infected) can be easily transmitted to a non-infected person via their mouth, nose, and/or eyes (CDC, 2020, WHO 2020a, b). Although the virus can be transmitted through direct contact with an infected person, it can also be transmitted through indirect contact (e.g., through the dispersion of infectious respiratory droplets and aerosols which the non-infected person acquires) and/or through contact with contaminated surfaces that an infected person has previously touched. Once transmitted, the virus can cause

³ It is important to note that medically, COVID-19 is a disease caused by SARS-CoV-2, the latter of which is a virus. With that being said, I opt to use “COVID-19” in a synonymous fashion on the backing of best risk communications practices (WHO, 2020d).

⁴ COVID-19 has also been shown to be transmitted less commonly through fecal-oral routes (Thomas et al., 2020).

respiratory infections and associated symptoms that are in many instances mild or non-existent, but that can also become severe and even fatal (CDC, 2020; WHO 2020b).

As of the time of this writing, more than 4.2 million people worldwide have died as a result of complications from the virus (WHO, 2021). Notwithstanding this tragedy, however, it appears that the frequency and infectivity of people not exhibiting symptoms (i.e., asymptomatic people) are the “hidden drivers” of the pandemic (Nikolai et al., 2020). Indeed, without rigorous testing procedures that are wide-reaching to all people, many asymptomatic carriers of the virus would otherwise never know that they are infected with the virus, simply because they do not experience any of the associated symptoms to suggest that they are infected. Moreover, while asymptomatic carriers of the virus may not exhibit symptoms, the virus affects everybody in a different manner: thus, if an asymptomatic carrier transmits the virus to another person, that person who acquires the virus could nevertheless exhibit associated symptoms, including the possibility of severe symptoms that could lead to a fatal outcome. Consistent with this logic, then, any public contact during the pandemic can thereby be potentially consequential.

2.1.1. COVID-19-Related Regulations

Due to the ways in which COVID-19 spreads, governmental agencies deemed that formal intervention was required to combat the spread of the virus. As a result, governments mobilized quickly after the WHO’s declaration of the virus as a pandemic to implement pandemic-related regulations in an effort to minimize infections. Although the specific nature of these regulations has ultimately varied as a function of respective regions and governments, the regulations broadly speaking have focused on increasing proximity between people to then in turn decrease the likelihood of spreading the virus from infected to non-infected persons. For example, self-quarantine orders have required that infected persons and those having travelled internationally isolate themselves from others. Social distancing measures have required that people maintain a minimum of a 6-foot distance when in communal settings. And, gathering restrictions have required that people not congregate, particularly in condensed and/or indoor spaces where ventilation is limited. Given that the virus is transmitted via person-to-person contact, the increase in proximity between people induced as a function of

pandemic-related regulations has, when implemented and followed appropriately, contributed to a decrease in the transmission of the virus (Aleta et al., 2020).

While these aforementioned measures can be effective at creating proximity between people, there are instances where following such regulations can be challenging. For example, despite enhanced safety measures, people may find it difficult to remain socially distanced at all times in a grocery store (Baker, 2020). Moreover, although many stores have implemented a maximum allowance of people at one time, this does not preclude the notion that stores are more often than not indoor settings with limited ventilation relative to outdoor settings, which may create a space that is more conducive to the spread of the virus. To account for this, governments have also implemented personal protective equipment (PPE) mandates that require people to use PPE in many settings, especially in those where social distancing may not be feasible. And, as one example, it has become particularly common to require the use of face masks in indoor settings during the pandemic, due to its effectiveness at inhibiting the spread of the virus (Chu et al., 2020; Cook, 2020; WHO 2020a, b).

2.2. Policing a Pandemic

As described above, governments have implemented COVID-19-related regulations on the backing of best medical practices with the intent of reducing the spread of the virus. Not all people, however, have interpreted these regulations in their intended manner, nor have they necessarily adhered to them with consistency. Indeed, Murphy et al. (2020) found that only 21.2% of participants in their study complied with *all* pandemic-related regulations in their region, suggesting that the majority of participants could at least in some way improve their adherence to regulations. Moreover, the authors reported that participants were less compliant with these regulations when they did not perceive the virus to present a significant risk to their health. This empirical observation about the lack of adherence to pandemic-related regulations begs a rather important question with respect to the implications of non-compliance: who should enforce pandemic-related regulations?

In spite of the changes to “everyday life” induced as a function of the pandemic (including remote work opportunities), police as essential service providers have largely been forced to maintain their frontline operations (Simpson & Sandrin, 2021). While

police agencies have implemented some policy changes to accommodate for increased telephone or online responses during the pandemic (e.g., for less serious or non-active events), the nature of policing still often requires in-person attendance at the location of events (e.g., for serious or active events). Given the fact that the police have remained on-duty and already oversee the enforcement of a wide array of regulations as a function of their job, it is thus not surprising that in many jurisdictions, the responsibility of enforcing pandemic-related regulations has been bestowed upon the police (Farrow, 2020; Jones, 2020; Sargeant et al., 2021; White & Fradella, 2020). And, indeed, allocating police resources to enforce such regulations may be justified: as White and Fradella (2020) argued, the police are always theoretically available to attend calls for service (including about pandemic-related violations), they have a mission to protect life, and they have the unique ability to use force if required.

Despite the ability to use force, though, a common approach that police have employed when responding to pandemic-related violations is education. Given the findings from recent research that participants' perceptions of the severity of the virus affect their willingness to follow pandemic-related regulations (Murphy et al., 2020), the police's education-based approach has seemed appropriate: by educating the public about the virus, the public may better understand the dangers inherent to it, which could then logically increase their compliance with the associated regulations. Consistent with this rationale, Delta Police Chief Neil Dubord anecdotally suggested that taking this education-based approach has resulted in the public's overwhelming cooperation (Thomson, 2020).

It is important to note, though, that although an education-based approach has anecdotally been deemed successful, there still has been some variation in how police agencies and individual officers have dealt with pandemic-related calls for service, with some employing more enforcement-oriented approaches than others. For example, the Chiefs of both the Regina and Saskatoon Police Services indicated recently that they would begin using more stringent measures to enforce pandemic-related regulations, given that (1) their services had already provided ample time for education and (2) COVID-19 models continue to trend in the wrong direction (Benning, 2020; Eneas, 2020). Similarly, despite North Bay Police Inspector Warner's recognition of the realities of pandemic fatigue and its impact on the public, he too has indicated that the time for his service's education-based approach has passed (Dawson, 2020). Regardless of

such variation in the enforcement of pandemic-related regulations, it appears that the police's mere involvement in a pandemic context could complicate how the public assesses them, including via the possibility of negative assessments.

2.2.1. Contention Regarding the Policing of a Pandemic

The plausibility of potentially negative assessments of police during the COVID-19 pandemic is perhaps magnified by the fact that the police's responsibility of enforcing these regulations in and of itself has been met with at least some contention. Although the swift involvement of police immediately following the outbreak of the virus may appear justified as an exercise of social control during a time of much uncertainty, some people have remained skeptical about the police's prolonged responsibility of handling pandemic-related regulations (Farrow, 2020). One objection to the police's responsibility may involve the notion that the police are intervening in a matter that is explicitly medical in nature, and therefore outside of the police's mandate. For example, public assessments of the police's pandemic-related enforcement could be less incumbent on people's existing thoughts about police and more dependent on how they feel about the virus itself. If the public perceives that a medical matter should be managed by medical authorities, then they may not support the police enforcing pandemic-related regulations, regardless of their opinions about the police. Some people may also question the legitimacy of the virus all together, which in turn could result in similarly negative assessments of the police's actions during the pandemic. If people do not believe the virus to warrant the intervention of police, then the deployment of police in this context could be perceived as an inappropriate use of police resources. These aforementioned examples may be problematic for police given that public assessments of police could be manipulated by a factor largely outside of the police's control: the decision to enforce pandemic-related regulations is not necessarily at the hands of the police, but they are nevertheless being assessed on their performance of policing regulations pertaining to this public health crisis.

Although the implications of potentially negative assessments of police are in and of themselves concerning, they could be far wider-reaching than just within a pandemic enforcement context and could manifest through more practical implications such as the public's willingness to cooperate with police. Broadly speaking, past research has defined and assessed cooperation with police in terms of crime reporting and associated

public behaviours that support the actions of police (e.g., Bolger & Walters, 2019; Karakus, 2017; Murphy et al., 2008, 2015; Sunshine & Tyler, 2003). Past research has also found that perceptions of police performance are positively related to the public's willingness to cooperate with police (e.g., Murphy et al., 2015). Consistent with this logic, if the public feels negatively about the police (as is the potential dilemma with respect to the police's responsibility and performance of enforcing pandemic-related regulations), then it is also plausible that they may be less willing to cooperate with police. This is problematic in the context of everyday policing because the public's support and cooperative efforts are ultimately necessary for the success of police and the safety of the community (Tyler, 2004; Tyler & Fagan, 2008). Sir Robert Peel (as cited in Dubord et al., 2021), the father of modern-day policing, argued that the police need to secure the willing cooperation of the public in voluntary observance of the law. And, accordingly, the functionality of modern policing has been predicated on the public's observance of crime and disorder and their willingness to call the police for service. In this vein, if the public is unwilling to cooperate with police, the efficacy of police and their ability to be effective in crime control could be hindered (Murphy et al., 2015).

2.2.2. Assessing Police Responsibility and Performance as well as Willingness to Cooperate with Police

In light of the police's enforcement of COVID-19-related regulations, many people have come to view the police as being deeply embedded in the frontline management of the virus (e.g., Murphy et al., 2020; Nix et al., 2021; White & Fradella, 2020). Consistent with this logic, the majority of participants in this study (who are described in more detail in Chapter 3; $N = 104$) "Agreed" or "Strongly Agreed" that "it is the responsibility of the police to enforce COVID-19 and related public health orders" (64.4%; see Table 1). Despite the aforementioned reasons for possible contention regarding this new responsibility, the majority of participants also "Agreed" or "Strongly Agreed" that "the police are helping to prevent the spread of COVID-19" (67.3%) and that they "support the police's approach to managing COVID-19" (70.2%). And, with respect to cooperation with police, the majority of participants once more "Agreed" or "Strongly Agreed" on all six cooperation-related statements. With that being said, although participants' overall orientations were generally positive, their support for police on these measures was not completely unanimous. For some items, the second most frequent response was "Neither Disagree nor Agree," and participants also responded in

the disagree categories. These results suggest that there is some heterogeneity in participants' assessments of police and willingness to cooperate with police, and I explore the possible rationale for such heterogeneity below.

Table 1. Participants' assessments of police responsibility and performance as well as willingness to cooperate with police during the COVID-19 pandemic (N = 104).

Variable	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
<i>Responsibility</i>					
"It is the responsibility of the police to enforce COVID-19 and related public health orders."	1.9%	4.8%	28.8%	41.3%	23.1%
<i>Performance</i>					
"The police are helping to prevent the spread of COVID-19."	3.8%	6.7%	22.1%	48.1%	19.2%
"I support the police's approach to managing COVID-19."	2.9%	5.8%	21.2%	42.3%	27.9%
<i>Willingness to cooperate with police⁵</i>					
"I would call the police for general assistance."	5.8%	9.6%	22.1%	44.2%	18.3%
"I would call the police to report a MINOR crime."	1.9%	9.6%	22.1%	42.3%	24.0%
"I would call the police to report a MAJOR crime."	2.9%	3.8%	13.5%	43.3%	36.5%
"I would call the police if I were the victim of a crime."	1.9%	7.7%	17.3%	38.5%	34.6%
"I would provide the police with information to catch a criminal."	1.9%	5.8%	24.0%	38.5%	29.8%
"I would willingly assist the police if asked."	1.9%	3.8%	23.1%	47.1%	24.0%

⁵ These variables were combined as part of a principal components analysis for later analyses.

2.3. Overview of the Instrumental and Normative Model

Despite the societal changes induced by the COVID-19 pandemic, there is still much reason to expect that factors which impact police-public relations have remained unchanged. Such relations appear to be influenced by legitimacy, which is defined by Sunshine and Tyler (2003) as “a property of an authority or institution that leads people to feel that that authority or institution is entitled to be deferred to and obeyed” (p. 514). In understanding how the police can garner such legitimacy, two frameworks have dominated scholarly literature: the instrumental model and the normative model (Karakus, 2017; Mazerolle et al., 2013; Murphy et al., 2015; Sunshine & Tyler, 2003; Tyler, 2003). Traditionally, the public’s views about the police were believed to be shaped by their perceptions of the effectiveness of police (Murphy et al., 2015). In this way, the instrumental model concerns itself with crime and public fear of victimization, and people’s willingness to take punitive stances on issues regarding criminals and criminality in order to avoid victimization themselves (Jackson & Bradford, 2009; Tyler & Boeckmann, 1997). Under this model, people are said to accept the authority of police when they are perceived as creating appropriate sanctions for rule violators, controlling crime, and distributing police services in a fair fashion (Simpson, 2019a; Tyler 2003). The implications of the instrumental model can be seen in many criminal justice contexts, including through a focus on “hard” crime counts and “get tough on crime” policies.

On the other hand, the normative model focuses on the fairness of the process used by police during interactions. Procedural justice is central to this model and argues that the public’s views about the police vary as a function of their perceptions of treatment by the police during an interaction. Rooted in the works of Tom Tyler, past literature has demonstrated that the public considers four related dimensions when determining whether the police are procedurally just: (1) whether they show *dignity and respect*, (2) whether they act in a *neutral* and objective manner that is free of bias, (3) whether they allow the public to *voice* their concerns and err grievances, and (4) whether they demonstrate *trustworthy motives* and concern for people’s wellbeing (e.g., Mazerolle et al., 2012; Sunshine & Tyler, 2003; Tyler, 1990, 2003). Thus, the police’s ability to exercise these dimensions of procedural justice – or rather, the public’s

perception that the officer engages in behaviours consistent with these dimensions – is indicative of a mutual benevolence, which may enhance police-public relations.

Although police-based research has focused on both the instrumental and normative model, the models also contrast each other: whereas the former concerns itself with the efficacy of police “work” broadly defined, the latter focuses on the process and humanistic qualities during police-public interactions. With that being said, extant research has consistently demonstrated that the normative model, and specifically procedural justice, is more important to how people will view the police (Jackson et al., 2013; Murphy et al., 2008; Reisig et al., 2012; Sunshine & Tyler, 2003; Tyler & Huo, 2002). When people perceive the police to be procedurally just, they are more likely to support, cooperate with, and empower the police, perceive the police as legitimate, and comply with the law (Mazerolle et al., 2012; Murphy et al., 2015; Nagin & Telep, 2017; Sunshine & Tyler, 2003; Tyler & Huo, 2002). This link appears to be explained by the Group-Value Model, which attributes cooperation as a function of social identity: when the police treat people in a procedurally just manner, they communicate messages about people’s value in society and reaffirm a sense of group identity and societal membership (Lind & Tyler, 1988; Murphy et al., 2015; Smith et al., 1998). This upholding of societal standing in turn fosters a mutual allegiance to group norms and cooperation between people and “in-group” authorities (Sunshine & Tyler, 2003). Thus, the public’s societal standing during police-public interactions can be manifested through procedural justice, which contributes to the ways in which the public feels about the police.

2.3.1. Literature on Procedural Justice During the Pandemic

A number of recent studies have examined police procedural justice in the context of the COVID-19 pandemic. For example, an American experiment conducted by Nix et al. (2021) at the beginning of the pandemic found that perceptions of procedural justice had a positive effect on participants’ opinions that police should enforce social distancing. However, the authors did not find procedural justice to have any effect on precautionary policing – the cutting back of self-initiated activities and enforcement of low-level crime in an effort to remain socially distanced. This latter observation appears to reinforce White and Fradella’s (2020) thoughts that the public expects the police to be constantly available and responding to a myriad of calls for service (i.e., not just calls related to criminal activity).

Using an Australian sample, McCarthy et al. (2021) found that participants who had no recent police-initiated contact or that had police-initiated contact with “high levels” of procedural justice exhibited greater compliance with physical distancing requirements relative to participants that experienced “low levels” of procedural justice in their police-initiated contact. Such findings appear to indicate that irrespective of the pandemic, “good” police work can have positive implications for people’s willingness to believe in the legitimacy of authority and thereby comply with pandemic-related regulations. As alluded to before, there is no theoretical reason to suggest that the way police ought to treat people has changed as a function of the pandemic. In this vein, procedural justice should also continue to be positively related to public assessments of police and willingness to cooperate with police.

2.4. Effects of the Police Uniform and Accoutrements on Perceptions of Police

If procedural justice can positively affect assessments of police and cooperation with police, researchers and practitioners alike can benefit from examining factors that affect antecedents to procedural justice, such as initial perceptions of police. To this end, research has found that the police uniform is an important visual cue that can impact perceptions of police. Simpson (2020) argued that no equipment is more important for the police than their uniform, further elaborating:

From a rudimentary perspective, uniforms symbolize officers’ membership in the police department. Uniforms also highlight status, foster legitimacy, emphasize group membership, influence impressions, and impact the nature of social interactions (e.g., Behling, 1994; Bell, 1982; Bickman, 1974; Damhorst, 1990; Durkin & Jeffery, 2000; Johnson et al., 2002; Joseph & Alex, 1972; Nickels, 2008; Paek, 1986; Singer & Singer, 1985; Volpp & Lennon, 1988). The presence of uniforms is thus particularly important in the context of policing and such importance is generally shared across the policing landscape. (p. 243)

First introduced by the London Metropolitan Police in 1829 to distinguish themselves from their military counterparts, the dark blue police uniform has become symbolic in the context of the profession and is now commonly used by police agencies across North America today (Johnson, 2017). Indeed, past research has found that the presence of a uniform can amplify officers’ associations with the police, thereby affecting public perceptions of them (e.g., Bell, 1982; Bickman 1974; Durkin & Jeffery, 2000;

Mauro, 1984; Simpson, 2017; Simpson & Croft, 2020; Singer & Singer 1985). For example, in a natural experiment that saw the Menlo Park Police trade in their traditional uniforms for blazers and slacks, Mauro (1984) found no differences between the two sets of attire on perceptions of friendliness and warmth, but instead, found that officers in their traditional uniforms were perceived to be more fit and able to defend themselves. Durkin and Jeffery (2000) found that despite being notified of their respective occupations, children perceived a civilian wearing a police uniform to be a “police officer” more so than an actual police officer in civilian attire. Consistent with the association that the uniform elicits for the profession, Simpson’s (2017) seminal findings revealed that relative to civilian attire, participants rated police officers in their uniforms to be more aggressive, but also more accountable, approachable, and respectful. More recently, Simpson and Croft (2020) found that the uniform may mitigate gendered perceptions, in that while participants rated male officers as more aggressive than female officers when in civilian attire, both were perceived to exhibit similar levels of aggression when in uniform. In sum, past research appears to indicate that the uniform is a visually salient representative of the police, whereby this symbolism transforms “police officers (by definition) into legitimate police officers (in practice)” (Simpson, 2017, p. 411).

Although the effects of the uniform appear to be consistent in that the mere presence of an officer in a police uniform induces certain perceptual effects, research has found that unlike uniforms, variations in officer accoutrements can induce more wide-ranging effects on perceptions of police. For example, different types of police vests have been shown to induce different perceptual effects: while the load-bearing vest (which repositions officers’ weaponry from their waist to their chest) has been shown to induce mixed perceptions, likely due to the more salient presence of weaponry on an officer that such vest introduces, high-visibility vests have been shown to exhibit unilaterally positive perceptual effects (Simpson, 2020). The presence of weapons, whether it be a baton (Simpson, 2020) or firearm (in a British context, where police officers have traditionally been unarmed; Yesberg et al., 2020), has been shown to induce largely negative perceptions of officers, and in the latter research, reduce trust and legitimacy. And, accoutrements that conceal officers’ intent (e.g., sunglasses; Boyanowsky & Griffiths, 1982; Simpson, 2020) and signal potential physical contact with the public (e.g., black gloves; Simpson, 2020) have also been shown to induce negative perceptions. In sum, accoutrements are particularly important for perceptions of police

because of their inferential capabilities: while a uniform signifies an association to the police, accoutrements on the other hand can provide perceptual signals regarding both officers' intentions and their policing philosophies (Simpson, 2020).

2.5. Changes to Accoutrements During the Pandemic: The Police's Use of PPE

In many cases, the police's use of accoutrements is context dependent: certain situations call for the use of certain accoutrements. Likewise, the decision to employ new types of accoutrements often stem from the rise of phenomena and challenges induced to the profession. Like other frontline workers who have engaged in public contact during the COVID-19 pandemic, police have adopted PPE as a type of accoutrement, which has been identified as providing many health and safety benefits (e.g., Chu et al., 2020; Cook, 2020; Thomas et al., 2020; WHO, 2020a, b). For example, the Vancouver Police Department (2020) has supplied their officers with gloves and personally-outfitted respiratory masks and recommended that they use them whenever applicable. The CDC (2020) has also recommended that law enforcement personnel use eye protection, including face shields and goggles, to further mitigate the risk of virus exposure. In the following section, I briefly describe these items of PPE used by officers during the pandemic.

Face Masks

Simple behaviours like coughing, sneezing, and talking can produce respiratory droplets and aerosols which can contain the COVID-19 virus (Thomas et al., 2020). Without adequate facial protection, exposure to these behaviours can thus spread the virus. With that being said, face masks have been shown to be effective at inhibiting such spread (Chu et al., 2020; Cook, 2020; WHO, 2020a, b) and have thus become very popular during the pandemic. Nevertheless, they still vary in both their efficacy and style (e.g., surgical masks versus N95 masks versus full-face respirator masks): although surgical masks provide benefits, more advanced respirator-style masks have been shown to provide superior coverage (Chu et al., 2020).

Medical Gloves

Although the use of gloves by police is not new given their functional benefits (Simpson, 2020), they have become particularly popular during the COVID-19 pandemic. Such popularity is largely due to two reasons. First, gloves protect officers from direct contact with citizens who may be carriers of the virus (WHO, 2020e). Second, gloves provide an extra barrier to skin contact against contaminated surfaces (WHO, 2020e). While gloves do not replace the importance of proper hand hygiene (WHO, 2020f), their usage is beneficial for reducing opportunities for the virus to spread, particularly among officers who may not have immediate access to hand washing or sanitizing stations.

Eye Protection and Face Shields

While it appears that eye protection and face shields have not been used by police during the COVID-19 pandemic to the same extent as gloves and face masks, they both have been shown to reduce hand-eye contact, which is another vehicle by which the virus can spread (Chu et al., 2020; Mukamul, 2020; Thomas et al., 2020). For this reason, the CDC (2020) has recommended that law enforcement personnel use these equipment whenever possible. Similar to gloves, however, eye protection and face shields do not provide adequate protection if used exclusively on their own (Lindsley et al., 2014; Roberge, 2016; Thomas et al., 2020). Instead, these items of PPE are most effective when used in combination with other items of PPE (French et al., 2016), like those discussed in the preceding sections.

2.5.1. A Test of Public Perception

While the police have adopted PPE primarily for its functional benefits (i.e., to mitigate the risks of the virus; CDC, 2020; Chu et al., 2020; Cook, 2020; WHO, 2020a, b), its use has also presented a novel visual stimuli for the public when they observe the police (Simpson & Sandrin, 2021). Provided that different forms of police accoutrements can signal different kinds of intent, it is possible that the police's use of different items of PPE may exhibit perceptual effects as well. When accounting for the literature surrounding COVID-19, police officers who use PPE should theoretically be perceived favourably, seeing that by using PPE, they demonstrate a cognizant awareness of the

growing body of medical recommendations regarding the handling of the virus (e.g., Chu et al., 2020; Cook, 2020; Thomas et al., 2020; WHO, 2020a, b). Ironically enough, however, many of the items that often constitute PPE have traditionally been associated with negative perceptions of police.

As described before, for example, Simpson (2020) found that black gloves exhibited negative effects on citizens' perceptions of officers, perhaps because the presence of gloves suggests an anticipation of unwanted physical contact. While little to no empirical literature has specifically examined the perceptual effects of face masks on police, existing research and current rhetoric suggest that they too may have important perceptual implications. For example, face masks can hinder communication and inhibit the display of facial expressions, which may contribute to more dehumanized interactions between the public and the police (Simpson, 2021). Moreover, specific types of face masks (e.g., full-face respirator masks) may elicit perceptions associated with hostile and/or militant behavior given that similar masks have traditionally been used by police as part of their tactical riot gear during public disorder situations where tear gas and/or other chemical agents are deployed (Kraska, 2007; Lawson, 2019). And the same logic applies to face shields: officers who employ face shields have traditionally been associated with riot squads and SWAT teams which are often perceived as being militarized (Kraska, 2007; Lawson, 2019). Face shields may therefore elicit negative perceptions associated with aggressive intentions and/or hostile situations as well. Finally, eye protection (including sunglasses) poses a similar paradox: while sunglasses may provide a supplementary shield from hand-eye contact and respiratory droplets, they too have been shown to induce negative perceptions of police (Boyanowsky & Griffiths, 1982; Simpson, 2020).

In order to address this "PPE paradox" that had yet to be investigated at the time, Simpson and Sandrin (2021) empirically tested the effects of PPE on perceptions of officer trait ascriptions. As part of the study, participants read fictitious news articles about the utility of PPE during the pandemic and then rated images of a police officer, including when using PPE, on a series of trait ascriptions (i.e., accountability, aggressiveness, approachability, competency, friendliness, intimidation, professionalism, and respectfulness). The results revealed that irrespective of the type of fictitious news article that participants were assigned to read, the use of PPE overwhelmingly exhibited important and favourable perceptual implications for police (Simpson & Sandrin, 2021).

For example, using a surgical mask or N95 mask alone and/or in combination with medical gloves unilaterally enhanced perceptions of the officer. The full-face respirator mask, on the other hand, exhibited more mixed effects: while using this particular mask alone and/or in combination with medical gloves exhibited some favourable effects, it also amplified perceptions of aggression and intimidation. The authors additionally found that an officer's use of combinations of PPE elicited further perceptual effects, but that such effects were largely a function of some perceptually salient items of PPE (e.g., face masks) as opposed to the completely additive effect of multiple items. The findings thus indicate that despite theoretical rationale to suggest that items of PPE could induce negative perceptions of police, the context behind the use of such items appears to have important implications for perceptions. In a pandemic context where PPE has been shown to mitigate the risk of spreading the virus, the police's use of PPE has been perceived as largely favourable with respect to officer trait ascriptions.

2.5.2. PPE and its Implications for Procedural Justice

"Seeing [police] officers routinely use what has traditionally been medical equipment is both novel and important for functionality and perception" (Simpson & Sandrin, 2021, p. 21). In light of the recent findings from Simpson and Sandrin (2021), there is further reason to speculate that while procedural justice may help to explain public assessments of police and willingness to cooperate with police (including during the COVID-19 pandemic, as discussed above; e.g., Bennett & Mazerolle, 2020; Farrow, 2020; Murphy et al., 2020; Nix et al., 2021; White & Fradella, 2020), perceptions of procedural justice may also be impacted by more tangible variables during the pandemic, such as the police's use of PPE. Provided that changes to the aesthetics of police can impact perceptions of officers (e.g., Boyanowsky & Griffiths, 1982; Johnson et al., 2015; O'Neill et al., 2018; Pica et al., 2020; Simpson, 2017, 2020; Simpson & Sandrin, 2021; Yesberg et al., 2020), the police's use of PPE during the pandemic may play an important role in shaping perceptions of officers as procedurally just. For example, an officer's use of PPE may display their attempt to mitigate the spread of the virus, which in turn, may provide perceptual cues about their level of dignity and respect for the public. In a similar way, an officer's use of PPE may showcase their willingness to follow public health guidelines, which in turn may lead the officer to be perceived as more trustworthy (at least in this pandemic context). The officer's use of such items may

also signal the intent to the public that they are both able to physically converse with the public and better able to allow the public voice during such conversations. Indeed, it is only through the proper use of PPE that officers can engage in “safe” in-person contact with the public during the pandemic. Lastly, while the relationship between PPE and neutrality may be less obvious, the officer’s use of PPE may help to highlight their commitment to provide the most effective public service possible, which in turn, may extend to that officer’s willingness to implement other best practices, including impartial decision-making. Therefore, the police’s use of PPE during the pandemic may signal much more than just their intent to be safe: an officer’s use of PPE may also serve as a form of symbolic interactionism that indicates their intention to act in a procedurally just manner.

2.6. Overview of the Thesis

Emerging bodies of literature have reaffirmed the importance of procedural justice during the COVID-19 pandemic (e.g., Bennett & Mazerolle, 2020; Farrow, 2020; Murphy et al., 2020; Nix et al., 2021; White & Fradella, 2020) as well as the importance of PPE for both safety (e.g., CDC, 2020; Chu et al., 2020; Cook, 2020; WHO, 2020a, b) and perception (e.g., Simpson & Sandrin, 2021). However, no known research has examined the effects of procedural justice and PPE on public assessments of police performance and responsibility during the pandemic. Moreover, scholarly literature has yet to examine how these combined effects are implicated in the public’s willingness to cooperate with police. Given both the relevance of procedural justice for policing and the salient change that the police’s use of PPE has induced for the aesthetics of the police uniform, it is important that these phenomena be examined together. As part of this thesis, I thus explore two related topics. First, I measure the effects of procedural justice on participants’ assessments of the police’s handling of the COVID-19 pandemic as well as their willingness to cooperate with police. Second, I explore the effects of different items of PPE on participants’ perceptions of procedural justice among police. In order to address these research questions, I propose two hypotheses.

Hypothesis 1. Perceptions of procedural justice, including when a police officer uses PPE, will be positively related to public assessments of police responsibility and performance as well as the public’s willingness to cooperate with police.

Hypothesis 2. Participants will perceive a police officer as more procedurally just when they are using items of PPE (e.g., face masks, face shields, goggles, and medical gloves) than when they are not using any items of PPE (i.e., in their standard uniform). Such effects of PPE will be larger when the officer uses items of PPE that provide greater visual salience and/or functionality.

Chapter 3.

Data and Methods

3.1. Participants

This study draws upon data from 104 adult participants (57 males and 47 females) sampled via Amazon’s Mechanical Turk (herein after referred to as “MTurk”). MTurk is a popular sampling platform that allows researchers to use crowdsourcing to collect remote data from participants in return for compensation. Previous research has found this platform to provide diverse and representative samples quickly and at low costs (Buhrmester et al., 2011; Casler et al., 2013; Mellis & Bickel, 2020; Mortensen & Hughes, 2018; Paolacci et al., 2010). Moreover, MTurk has been used in related research that has explored perceptions of police and criminal justice entities more broadly, including pandemic policing (e.g., Mellis & Bickel, 2020; Miethe et al., 2019; Nix et al., 2021; Salerno & Sanchez, 2020; Simpson, 2021; Simpson & Sandrin, 2021). Given the constraints imposed upon human subjects research by the pandemic, MTurk offered a safe and practical option for recruiting participants.

As described above, MTurk collects data remotely from participants. Thus, although MTurk has the ability to host studies that mimic in-person laboratory-style experiments, researchers cannot rigorously control for extraneous factors. For example, relative to in-person laboratory settings, researchers that are conducting studies remotely may find it more challenging to ensure that participants are fully engaged with the study due to the presence of external influences and lack of direct oversight. Therefore, in order to ensure that the data were of the highest quality possible, I restricted the survey to MTurk participants who had a high approval rating on prior human intelligence tasks (i.e., other surveys) of at least 90%. Aside from this prerequisite of standing as an MTurk worker, all participants recruited for the study had to be: (1) residing in North America, (2) at least 18 years of age, and (3) able to speak, read, and write English. It is important to note that although the study was open to MTurk workers across North America, all participants in these analyses were living in the United States. Participants ranged in age from 21 to 77 ($M = 38$) and self-identified as Asian (6), Black (14), Hispanic (3), White (75), or unknown (6) race. The majority of participants

reported that they held a Bachelor’s degree (70) and that their income is “average” (56) relative to other people living in their respective regions. See Table 2 for descriptive statistics.

Table 2. Descriptive statistics for participants (N = 104).

Variable	Number	Mean	Std. Dev.
Gender			
Male	57	-	-
Female	47	-	-
Age	-	38	12.8
Race/Ethnicity			
Asian	6	-	-
Black	14	-	-
Hispanic	3	-	-
White	75	-	-
Unknown	6	-	-
Education			
Did not complete high school	0	-	-
High school/GED	2	-	-
Some college/university	7	-	-
Bachelor’s Degree	70	-	-
Master’s Degree	23	-	-
Doctoral Degree	2	-	-
Marital Status			
Single	34	-	-
Cohabiting	1	-	-
Married	67	-	-
Separated/Divorced	1	-	-
Unknown	1	-	-
Income			
Much less than average	6	-	-
Little less than average	14	-	-
Average	56	-	-
Little more than average	26	-	-
Much more than average	2	-	-
Recent Police Contact			
Negative	3	-	-
Positive	16	-	-
Both	21	-	-
None	64	-	-
Lifetime Encounters with the Police	-	5	13.7

3.2. Procedure

Upon enrollment in the study, participants were advised that the study sought to investigate public attitudes about the use of PPE during the COVID-19 pandemic. Participants were further informed that they would: (1) rate images of people using PPE on a number of different variables and then (2) complete a series of concluding questions about themselves and their thoughts. The generic term “people” was employed in lieu of the specific term “police” in order to minimize potential demand characteristics that could have otherwise biased participants’ perceptions of police. Following completion of the task, participants were provided with a debriefing information sheet that contained information about the study and contact information for the research team should they have any questions. The study was conducted entirely online and required approximately 20 minutes to complete.

3.3. Perception Task

As part of the perception task, participants rated 12 different images of a uniformed White male officer using different items of PPE on procedural justice-related statements (as described below; see Appendix). In the first six images, the officer used *one* of the following items of PPE: (1) a surgical mask, (2) an N95 mask, (3) a full-face respirator mask, (4) goggles, (5) a face shield, or (6) single-use medical gloves (light blue in color). In the subsequent five images, the officer used a *combination* of the aforementioned items of PPE, including: (7) medical gloves and a surgical mask, (8) medical gloves and an N95 mask, (9) medical gloves and a full-face respirator mask, (10) medical gloves, an N95 mask, and goggles, or (11) medical gloves, an N95 mask, goggles, and a face shield. In the twelfth (control) image, the officer did not use any PPE and wore only their standard uniform. This standard uniform (which the officer wore in all images irrespective of the PPE being manipulated) included an operational duty belt, navy blue short-sleeve collared shirt, navy blue pants, and black boots. These specific images were selected to not only isolate individual items of PPE, but also to examine the perceptual effects of popular combinations of PPE used by officers.

In order to ensure the realism of both the officer and the PPE used by the officer, all images were collected with the assistance of a local police department. The police department supplied both the officer and the PPE. All names and other identifiers of the

officer were digitally removed for the purposes of the study. Removing such elements ensured that the uniform appeared as generic and region-neutral as possible: the dark blue uniform worn by the officer in the experiment appears almost identical to the dark blue uniform worn by most police agencies across North America. All elements of the images with the exception of the PPE being manipulated were held constant across the images (e.g., same [neutral] facial expression, posture, etc.).

To best situate the context for the study, all images of the officer were taken in a public setting. The images were taken near a building that minimized shadows while allowing for sufficient light to create a clear visual of the officer. The images depicted a simulated interaction between the officer and a member of the public (i.e., I was presented in the image with my back toward the camera to simulate an interaction with the officer, but the lens was focused on that officer). Moreover, other members of the public (i.e., staged volunteers) were present but not focal in the background. Including members of the public in both the simulated interaction and background was necessary to make the use of PPE meaningful (i.e., one could argue that using PPE is potentially irrelevant in the absence of other people). All members of the public were situated in the same position across the images and their faces were always blurred to emphasize the focus on the pictured officer. The order of the presentation of images was randomized across participants to control for potential order effects.

3.4. Variables

3.4.1. Procedural Justice

After viewing each image of the officer, participants rated that officer along five procedural justice-related statements on a five-point Likert scale, ranging from “Strongly Disagree” (-2) to “Strongly Agree” (2). These statements included: (1) “This officer would have my best interests in mind” (Trustworthy Motives), (2) “This officer would be fair when making decisions” (Neutrality), (3) “This officer would listen to me before making a decision” (Voice), (4) “This officer would treat me with dignity and respect” (Dignity and Respect), and (5) “This officer would be polite when dealing with me” (also Dignity and Respect). These statements reflect the four core dimensions of procedural justice as studied in past research (for a discussion, see Chapter 2).

In order to account for potential differences in perceptions of procedural justice by the officer's use of PPE, I operationalized procedural justice using two measures: (1) through a baseline measure which involved participants' evaluations of procedural justice for only the control image of the officer without any PPE (herein after referred to as "PJ") and (2) through a procedural justice measure specific to the COVID-19 pandemic which involved participants' evaluations of procedural justice for the remaining 11 images of the officer using PPE (herein after referred to as "PPE PJ"). For the former, I collapsed the mean of the five survey questions that participants answered for the control image of the officer ($M = 0.49$, $SD = 0.86$, $\alpha = 0.87$), and for the latter, I collapsed the mean for the same five survey questions but for the 11 PPE images (for a total of 55 responses; $M = 0.70$, $SD = 0.55$, $\alpha = 0.96$).

3.4.2. Behavioural Statements

In addition to the dimensions of procedural justice, participants also rated each image of the officer on three behavioural statements: (1) "This officer is adequately dressed given the conditions" (Dressed Adequate), (2) "This officer is doing their best to protect themselves and the community" (Protective), and (3) "This officer shares my values" (Shares Values). These behavioural statements were evaluated on the same five-point Likert scale, ranging from "Strongly Disagree" (-2) to "Strongly Agree" (2).

3.4.3. Sociodemographic Variables

As part of the study, participants responded to a number of sociodemographic questions. I treated participants' responses to "Age" (continuous), "Gender" (male/female),⁶ and "Lifetime encounters with the police" (continuous) in their original forms. Due to constraints imposed by the sample size, I re-coded participants' responses to "Race" (i.e., White/non-White), "Marital Status" (i.e., married/not married), and "Recent Police Contact" (i.e., yes/no) as dichotomous variables. Finally, I treated participants' responses to "Education" (i.e., initially assessed as a six-point categorical variable, ranging from "Did not complete high school" to "Doctoral Degree") and "Income" (i.e., initially assessed as a five-point categorical variable, ranging from "Much

⁶ Participants were also provided with the option of "other" when responding about their gender, but no participants selected this option.

less than average” to “Much more than average”) as continuous variables (see Table 2 for participants’ original responses).

3.4.4. Police Responsibility and Performance

I operationalized police responsibility and performance during the COVID-19 pandemic using two separate measures derived via three survey items. Participants assessed each survey item on a five-point Likert scale, ranging from “Strongly Disagree” (-2) to “Strongly Agree” (2). The responsibility measure was assessed via participants’ response to the statement: “It is the responsibility of the police to enforce COVID-19 and related public health regulations” ($M = 0.79$, $SD = 0.92$). The performance measure was constructed by summing participants’ scores for the following two survey questions: (1) “The police are helping to prevent the spread of COVID-19” and (2) “I support the police’s approach to managing COVID-19” (statistics for the summed scale: $M = 1.59$, $SD = 1.73$, $\alpha = 0.71$). Pearson’s correlation between the responsibility and performance variables ($r = 0.401$, $r^2 = 0.161$, $p < 0.001$) revealed a positive linear relationship, where police responsibility accounts for 16.1% of the variance in police performance. Despite this positive relationship, the unaccounted variance suggests enough distinction in participants’ responses among the two variables, such that they should be examined as separate entities.

Table 3. Pearson’s correlations among variables in the principal components analysis.

Variables	1	2	3	4	5	6
<i>I would</i>						
1 “Call the police for general assistance”	1					
2 “Call the police to report a MINOR crime”	0.487***	1				
3 “Call the police to report a MAJOR crime”	0.309***	0.355***	1			
4 “Call the police if I was a victim of a crime”	0.408***	0.294**	0.396***	1		
5 “Provide the police with information to catch a criminal”	0.430***	0.429***	0.479***	0.485***	1	
6 “Willingly assist the police if asked”	0.323***	0.343***	0.489***	0.408***	0.468***	1

** $p < 0.01$; *** $p < 0.001$

3.4.5. Willingness to Cooperate with Police

I operationalized cooperation with police using a measure derived via six survey items. Participants assessed each survey item on the same five-point Likert scale, ranging from “Strongly Disagree” (-2) to “Strongly Agree” (2). The items included: (1) “I would call the police for general assistance,” (2) “I would call the police to report a *minor* crime,” (3) “I would call the police to report a *major* crime,” (4) “I would call the police if I was a victim of a crime,” (5) “I would provide the police with information to catch a criminal,” and (6) “I would willingly assist the police if asked.” The use of such survey items is consistent with prior research that has assessed cooperation with police (e.g., Karakus, 2017; Murphy et al., 2008, 2015; Sunshine & Tyler, 2003). In order to determine the suitability of the survey items as a measure, I conducted a principal components analysis (PCA). The correlation matrix revealed a significant and positive relationship for all six survey items (see Table 3). Results from the Kaiser-Meyer-Olkin test (0.834), Bartlett’s test of sphericity ($\chi^2 (15) = 164.761, p < .001$), and communalities (minimum value > 0.45) indicated that PCA was appropriate for the data. Using an eigenvalue >1 threshold, the PCA determined that a one factor solution was most optimal ($\alpha = 0.80$), with all survey items having produced factor loadings > .670 on that solution (see Table 4).

Table 4. Principal components analysis for cooperation with police.

Variables	Factor Loadings
Call the police for general assistance	0.686
Call the police to report a MINOR crime	0.673
Call the police to report a MAJOR crime	0.712
Call the police if you were a victim of a crime	0.701
Provide the police with information to catch a criminal	0.783
Willingly assist the police if asked	0.712
Eigenvalues	3.041
Explained variance	50.680%

3.5. Analytic Strategy

In order to test Hypothesis 1, I employ a series of OLS regression models. I first examine how PJ affects participants' assessments of police responsibility and performance during the COVID-19 pandemic. I then replace the PJ measure with the PPE PJ measure to determine whether the officer's use of PPE impacts the magnitude of effect for the procedural justice variable. I employ a similar logic with respect to cooperation with police. I first examine how PJ affects participants' willingness to cooperate with police. Again, I replace the PJ measure with the PPE PJ measure to determine whether the officer's use of PPE impacts the magnitude of effect for the procedural justice variable. All of the regression models met the assumptions of OLS appropriate within the confines of social science conventions (e.g., Garson, 2014).

In order to test Hypothesis 2, I employ a series of *t*-tests to tease apart within-subject differences regarding perceptions of procedural justice by the type of PPE used. Within these particular analyses, the officer acts as their own analytic control: ratings of each image of the officer using different items of PPE are compared against ratings of the same officer not using PPE (i.e., control image). In these analyses, I further included the three behavioural statements in an effort to identify potential proxies that might help to explain variation in perceptions of procedural justice by PPE. I examine the findings from the analyses in the following chapter.

Chapter 4.

Results

4.1. Bivariate Associations

I begin the analyses by employing Pearson's correlation to examine bivariate associations among continuous variables. I find that all main independent and dependent variables exhibit positive correlations with each other (see Table 5). In addition, I find a number of significant associations between sociodemographic and main variables. For example, I find that participants' number of interactions with the police is negatively correlated to assessments of police performance ($r = -0.228, p < 0.05$): as participants' number of interactions with the police increased, their assessments of police performance decreased. Separately, I find that participants' education is positively correlated to both their willingness to cooperate with police ($r = 0.235, p < 0.05$) and ratings of PPE PJ ($r = 0.254, p < 0.01$): as participants' levels of education increased, their willingness to cooperate with police and ratings of PPE PJ also increased. Finally, I find that participants' income is positively correlated to ratings of PPE PJ ($r = 0.215, p < 0.05$): as participants' income increased, ratings of PPE PJ also increased. See Table 5 for other correlations.

4.2. Effects of Procedural Justice on Assessments of Police

As part of the first set of regression models (see Table 6), I explore the effects of PJ (derived via participants' ratings of the officer without any PPE) on participants' assessments of police responsibility and performance. With regard to the former, I find a positive relationship between PJ and assessments of police responsibility ($b = 0.32, p < 0.01$): when participants perceived police as more procedurally just, they expressed more favourable assessments of police responsibility in managing the pandemic. With regard to the latter, I find a positive relationship between PJ and assessments of police performance ($b = 0.88, p < 0.001$): when participants perceived police as more procedurally just, they expressed more favourable assessments of police performance during the pandemic.

Table 5. Pearson's correlations among continuous independent and dependent variables.

Variables	1	2	3	4	5	6	7	8	9
1 Police Responsibility	1								
2 Police Performance	0.401***	1							
3 Cooperation with Police	0.550***	0.535***	1						
4 "Baseline" PJ	0.311**	0.467***	0.394***	1					
5 "PPE" PJ	0.456***	0.528***	0.595***	0.691***	1				
6 Age	-0.005	0.046	0.174	0.108	0.086	1			
7 Education	0.152	0.066	0.235*	0.044	0.254**	-0.128	1		
8 Income	0.137	0.011	0.163	0.071	0.215*	0.007	0.311**	1	
9 Number of Interactions with Police	-0.170	-0.228*	-0.079	-0.014	-0.124	-0.010	0.066	-0.235*	1

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

I also find several significant effects regarding sociodemographics for both of these outcomes. For example, I find that non-White participants ($b = -0.49, p < 0.05$) expressed less favourable assessments of police responsibility than White participants. I also find that participants who are married ($b = 0.65, p < 0.10$) expressed more favourable assessments of police performance than non-married participants. Finally, I find a very small, negative relationship between participants' number of lifetime encounters with the police and their assessments of police performance ($b = -0.02, p < 0.10$).

Table 6. Regression models examining the effects of PJ and PPE PJ on assessments of police responsibility and performance during the COVID-19 pandemic.

	Model 1: "Baseline" Procedural Justice		Model 2: "PPE" Procedural Justice	
	Responsibility	Performance	Responsibility	Performance
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Baseline PJ	0.32 (0.10)**	0.88 (0.18)***	-	-
PPE PJ	-	-	0.69 (0.16)***	1.62 (0.28)***
Characteristics				
Age	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.01 (0.01)
Male ¹	0.04 (0.18)	-0.20 (0.31)	0.06 (0.17)	-0.14 (0.30)
Non-White ²	-0.49 (0.20)*	-0.37 (0.35)	-0.40 (0.19)*	-0.15 (0.34)
Married ³	0.21 (0.20)	0.65 (0.35) [†]	0.16 (0.19)	0.54 (0.34)
Education	0.20 (0.15)	0.14 (0.26)	0.09 (0.15)	-0.11 (0.26)
Income	0.06 (0.11)	-0.20 (0.20)	0.01 (0.11)	-0.32 (0.19)
Recent Police Contact ⁴	-0.03 (0.19)	0.06 (0.33)	-0.07 (0.18)	0.00 (0.32)
Lifetime Police Encounters	-0.01 (0.01)	-0.02 (0.01) [†]	-0.01 (0.01)	-0.02 (0.01) [†]
Constant	-0.12 (0.69)	0.56 (1.21)	0.06 (0.66)	1.00 (1.17)
<i>F</i> Statistic	2.59*	4.40***	3.78***	5.57***
Adjusted R ²	0.12	0.23	0.20	0.29

[†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Results with "0.00" are due to rounding

¹ Reference group = female participants

² Reference group = White participants

³ Reference group = participants who are not married

⁴ Reference group = participants without recent police contact

As part of the second set of regression models, I explore the effects of PPE PJ (derived via participants' ratings of the officer using PPE) on their assessments of the same outcomes. The results reveal similar patterns as observed in the first set of

models. For example, I find a positive relationship between PPE PJ and assessments of police responsibility ($b = 0.69, p < 0.001$). I also find a positive relationship between PPE PJ and assessments of police performance ($b = 1.62, p < 0.001$). In both instances, though, the coefficient appears to be larger in these models than the former models. In terms of sociodemographics, I find that non-White participants ($b = -0.40, p < 0.05$) exhibited less favourable assessments of police responsibility than White participants. I also find a very small, negative relationship between participants' number of lifetime encounters with the police and their assessments of police performance ($b = -0.02, p < 0.10$).

4.3. Effects of Procedural Justice on Willingness to Cooperate with Police

As part of the third set of regression models (see Table 7), I employ a similar block modelling strategy to explore the differing effects of PJ and PPE PJ on participants' willingness to cooperate with police. With regard to the former, I find a positive relationship between PJ and willingness to cooperate with police ($b = 0.44, p < 0.001$): when participants perceived police as more procedurally just, they expressed a greater willingness to cooperate with police. Several significant findings regarding sociodemographics also emerge. For example, I find a positive relationship between participants' education and their willingness to cooperate with police ($b = 0.39, p < 0.05$). Finally, I also find a very small, positive relationship between participants' age and their willingness to cooperate with police ($b = 0.02, p < 0.05$).

When I explore the effects of PPE PJ on participants' willingness to cooperate with police, a similar pattern as observed in the prior models emerge. For example, I find a positive relationship between PPE PJ and willingness to cooperate with police ($b = 1.01, p < 0.001$). Again, the coefficient appears to be larger in this model. With respect to sociodemographics, only one significant finding emerges: participants' age had a very small, positive effect on their willingness to cooperate with police ($b = 0.01, p < 0.10$).

Table 7. Regression models examining the effects of PJ and PPE PJ on willingness to cooperate with police during the COVID-19 pandemic.

	Model 1:	Model 2:
	“Baseline” Procedural Justice	“PPE” Procedural Justice
	b (SE)	b (SE)
Baseline PJ	0.44 (0.11)***	-
PPE PJ	-	1.01 (0.16)***
Characteristics		
Age	0.02 (0.01)*	0.01 (0.01)†
Male ¹	-0.13 (0.18)	-0.10 (0.17)
Non-White ²	-0.33 (0.21)	-0.21 (0.19)
Married ³	-0.01 (0.21)	-0.09 (0.19)
Education	0.39 (0.16)*	0.23 (0.14)
Income	0.08 (0.12)	0.00 (0.11)
Recent Police Contact ⁴	-0.03 (0.19)	-0.08 (0.18)
Lifetime Police Encounters	-0.01 (0.01)	0.00 (0.01)
Constant	-2.23 (0.72)**	-1.97 (0.65)**
F Statistic	3.73***	6.92***
Adjusted R ²	0.19	0.34

† $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Results with “0.00” are due to rounding

¹ Reference group = female participants

² Reference group = White participants

³ Reference group = participants who are not married

⁴ Reference group = participants without recent police contact

4.4. Dimensions of Procedural Justice

The findings from the regression models suggest that procedural justice is positively related to police responsibility and performance as well as willingness to cooperate with police during the pandemic, thereby supporting Hypothesis 1. Although a direct comparison between the PJ and PPE PJ variables cannot be made due to the nature of the measures, the effect of procedural justice *appears* to be stronger when the officer is using PPE. As part of the next set of analyses, I thus test Hypothesis 2 by employing a series of within-subject *t*-tests to disentangle some of these effects and explore the mechanisms that might link PPE with procedural justice.

Face Masks

Face masks have been shown to be effective at inhibiting the spread of the virus (Chu et al., 2020; Cook, 2020). Their efficacy has resulted in both overwhelming

popularity during the pandemic and the associated expectation that people use them, including the police. Consistent with this logic, when the officer used any kind of a face mask (i.e., surgical, N95, or full-face respirator mask), participants generally perceived them to be more procedurally just than when they did not use a face mask (see Table 8). For example, using a surgical mask amplified perceptions that the officer would be fair when making decisions (difference = 0.240, $p < 0.05$) and that they would be polite (difference = 0.231, $p < 0.05$). Using an N95 mask also amplified perceptions of fairness (difference = 0.269, $p < 0.01$) and politeness (difference = 0.212, $p < 0.05$) as well as enhanced perceptions that the officer would have participants' best interests in mind (difference = 0.250, $p < 0.05$). Although the officer's use of a full-face respirator mask did not exhibit significant differences for the variables of fairness and politeness, the officer's use of such mask amplified perceptions that they would have participants' best interests in mind (difference = 0.231, $p < 0.05$) and that they would listen to them prior to making a decision (difference = 0.212, $p < 0.05$).

Face Shields

The officer's use of a face shield also elicited some interesting findings. Although face shields are used less frequently in comparison to face masks, their prominence on an officer's face can still induce perceptual effects (Simpson & Sandrin, 2021). And, indeed, using a face shield amplified perceptions that the officer would have participants' best interests in mind (difference = 0.212, $p < 0.05$) as well as treat them politely (difference = 0.346, $p < 0.001$). In fact, the exclusive use of a face shield exhibited a stronger effect for perceptions of politeness than any of the aforementioned face masks.

Goggles

Next, I examine goggles, which are both less salient in terms of visual perception and exhibit fewer functional benefits if used on their own (Simpson & Sandrin, 2021). Given these caveats, it was not surprising to see that goggles only exhibited one significant effect: using goggles reduced perceptions that the officer would exhibit dignity and respect (difference = 0.192, $p < 0.05$). The direction of this effect, however, runs counter to the prediction that such item would have enhanced perceptions of the officer for the reasons noted earlier.

Table 8. T-tests comparing participants' perceptions of procedural justice of the officer when using PPE versus not using PPE.

Variable	Procedural Justice				
	Trustworthy Motives	Neutrality	Voice	Dignity and Respect	Respect Polite
No PPE (Control)	0.452	0.510	0.490	0.558	0.452
Surgical Mask	0.644	0.750	0.673	0.664	0.683
<i>Difference from Control</i>	0.192	0.240*	0.183	0.106	0.231*
N95 Mask	0.702	0.779	0.683	0.683	0.664
<i>Difference from Control</i>	0.250*	0.269**	0.192	0.125	0.212*
Full-Face Respirator Mask	0.683	0.596	0.702	0.654	0.481
<i>Difference from Control</i>	0.231*	0.087	0.212*	0.096	0.029
Face Shield	0.664	0.558	0.539	0.673	0.798
<i>Difference from Control</i>	0.212*	0.048	0.048	0.115	0.346***
Goggles	0.490	0.596	0.587	0.365	0.625
<i>Difference from Control</i>	0.038	0.087	0.096	0.192*	0.173
Medical Gloves ("Gloves")	0.289	0.519	0.654	0.577	0.539
<i>Difference from Control</i>	0.163	0.010	0.163	0.019	0.087
Gloves & Surgical Mask	0.846	0.846	0.837	0.789	0.789
<i>Difference from Control</i>	0.394***	0.337**	0.346***	0.231*	0.337**
Gloves & N95 Mask	0.731	0.865	0.740	0.817	0.837
<i>Difference from Control</i>	0.279*	0.356**	0.250*	0.260*	0.385***
Gloves & Full-Face Respirator Mask	0.712	0.644	0.760	0.808	0.721
<i>Difference from Control</i>	0.260*	0.135	0.269**	0.250*	0.269*
Gloves, N95 Mask & Goggles	0.875	0.856	0.846	0.769	0.837
<i>Difference from Control</i>	0.423***	0.346**	0.356***	0.212*	0.385***
Gloves, N95 Mask, Goggles & Face Shield	0.808	0.865	0.808	0.846	0.990
<i>Difference from Control</i>	0.356**	0.356**	0.317**	0.288*	0.538***

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Medical Gloves and Combinations of PPE

Lastly, while medical gloves when used on their own did not exhibit any significant effects, the various combinations of PPE (which included medical gloves) overwhelmingly enhanced perceptions of the officer: I observe significant effects for all PPE combinations for all dimensions of procedural justice, with the exception of the medical gloves and full-face respirator mask combination for perceptions of fairness. Moreover, the effects of PPE combinations appear to be additive in many instances, such that an increase in the number of PPE items used by the officer is associated with stronger perceptions of procedural justice.

4.5. Behavioural Statements

The above results suggest that there are relationships between items of PPE and perceptions of procedural justice. Although these findings are not unanimous in all instances (and one analysis regarding goggles produced an inverse effect), the degree of such findings provide considerable support for Hypothesis 2. As part of the final set of analyses, I attempted to identify some of the mechanisms that may be driving these effects. In order to do so, I examined participants' responses to three behavioural statements regarding each image of the officer (see Table 9). The findings from these ancillary analyses reveal that the officer's use of PPE has important implications for perceptions of that officer's pro-community behaviour in a pandemic context. For example, using a surgical mask amplified perceptions that the officer was dressed adequately for the conditions (difference = 0.654, $p < 0.001$), shared participants' values (difference = 0.423, $p < 0.001$), and that they were doing their best to protect themselves and the community (difference = 0.462, $p < 0.001$). In fact, I find significant findings for all behavioural statements when the officer used any face mask or face shield, although the magnitude of effect varies as a function of the specific item of PPE used. Moreover, this effect is once more additive in many instances, such that an increase in the number of PPE items used by the officer is associated with stronger perceptions of pro-community behaviour in a pandemic context. In sum, an officer's use of PPE has important implications for perceptions of procedural justice, but that such favourable perceptions appear to be predicated on the context behind why that officer is using PPE.

Table 9. T-tests comparing participants' responses to behavioural statements of the officer when using PPE versus not using PPE.

Variable	Behavioural Statements		
	Dressed Adequate	Protective	Shares Values
No PPE (Control)	0.221	0.346	0.327
Surgical Mask	0.875	0.769	0.789
<i>Difference from Control</i>	<i>0.654***</i>	<i>0.423**</i>	<i>0.462***</i>
N95 Mask	0.731	0.664	0.712
<i>Difference from Control</i>	<i>0.510***</i>	<i>0.317**</i>	<i>0.385***</i>
Full-Face Respirator Mask	0.644	0.635	0.625
<i>Difference from Control</i>	<i>0.423**</i>	<i>0.288*</i>	<i>0.298**</i>
Face Shield	0.500	0.664	0.539
<i>Difference from Control</i>	<i>0.279*</i>	<i>0.317*</i>	<i>0.212*</i>

Variable	Behavioural Statements		
	Dressed Adequate	Protective	Shares Values
Goggles	0.164	0.414	0.442
<i>Difference from Control</i>	<i>0.058</i>	<i>0.067</i>	<i>0.115</i>
Medical Gloves (“Gloves”)	0.289	0.423	0.375
<i>Difference from Control</i>	<i>0.067</i>	<i>0.077</i>	<i>0.048</i>
Gloves & Surgical Mask	1.001	0.837	0.875
<i>Difference from Control</i>	<i>0.788***</i>	<i>0.490***</i>	<i>0.548***</i>
Gloves & N95 Mask	1.058	1.106	0.721
<i>Difference from Control</i>	<i>0.837***</i>	<i>0.760***</i>	<i>0.394**</i>
Gloves & Full-Face Respirator Mask	0.817	0.990	0.827
<i>Difference from Control</i>	<i>0.596***</i>	<i>0.644***</i>	<i>0.500***</i>
Gloves, N95 Mask & Goggles	1.010	0.856	0.740
<i>Difference from Control</i>	<i>0.788***</i>	<i>0.510***</i>	<i>0.413**</i>
Gloves, N95 Mask, Goggles & Face Shield	1.106	1.058	0.846
<i>Difference from Control</i>	<i>0.884***</i>	<i>0.712***</i>	<i>0.519***</i>

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Chapter 5.

Discussion

5.1. Discussion of Findings

The COVID-19 pandemic has resulted in a heightened focus on public health and safety. Such focus led governments worldwide to introduce a number of pandemic-related regulations intended to increase proximity between people to decrease the likelihood of spreading the highly contagious virus. Despite the fact that such regulations have come on the backing of best medical practices, some people have not adhered to the regulations (Murphy et al., 2020). In order to address this challenge of adherence, many jurisdictions have sought the enforcement of pandemic-related regulations and have delegated such responsibility to the police (Farrow, 2020; Jones, 2020; Murphy et al., 2020; Sargeant et al., 2021; White & Fradella, 2020).

Although some scholars have justified the police's responsibility during the pandemic (e.g., White & Fradella, 2020), it has not come without public contention. This appears to largely be due to the fact that the police's involvement in more explicitly medical-related matters is foreign to contemporary Western society hitherto. Therefore, if the public is not supportive of the police's responsibility of enforcing pandemic-related regulations, then they may not feel that the police are performing adequately during the pandemic. The consequences of such negative assessments could be wide-reaching and have tangible impacts on the nature of everyday policing. Given the link between perceptions of police performance and willingness to cooperate with police (e.g., Murphy et al., 2015), a lack of public support for the police could mean that the public is also unwillingness to cooperate with police. Provided that many police activities are generated by the public's calls for service, negative assessments of police could effectively hinder the police's ability to address crime and disorder.

With all that being said, one way to mitigate the contention of *what* the police do, is through the process of *how* they do it. To this end, extant research has consistently demonstrated that procedural justice is one of the most salient factors for determining how people will feel about the police (Jackson et al., 2013; Murphy et al., 2008; Reisig et al., 2012; Sunshine & Tyler, 2003; Tyler & Huo, 2002). When people perceive the police

to be procedurally just, the implications are unanimously favourable (e.g., Mazerolle et al., 2012; Murphy et al., 2015; Nagin & Telep, 2017; Sunshine & Tyler, 2003; Tyler & Huo, 2002). In this vein, acting in procedurally just ways appears to aid the police in fostering strong public relations.

Notwithstanding the importance of procedural justice, a primary focus for police during the pandemic has and continues to be on the public's safety, including the ability to have "safe" interactions with the public while avoiding the spread of the virus. To this end, police (among others) have adopted the use of PPE, which has been identified as providing many health and safety benefits (e.g., Chu et al., 2020; Cook, 2020; Thomas et al., 2020; WHO 2020a, b). Indeed, the police's use of PPE in their routine activities "may actually be one of the most visible and perceptually salient changes to the criminal justice system induced by the pandemic" (Simpson & Sandrin, 2021, p. 21). Moreover, the adoption of this traditionally medical equipment has allowed the police to continue to be able to interact in-person with the public. Until now, however, no known research has empirically examined the effects of both procedural justice and PPE on assessments of police and willingness to cooperate with police during the COVID-19 pandemic. Given both the relevance of procedural justice for policing and the salient change that the police's use of PPE has induced for the aesthetics of the police uniform, it was pertinent to examine these phenomena together as part of this thesis.

As part of the first research question, I measured the effects of procedural justice on participants' assessments of the police and willingness to cooperate with police during the COVID-19 pandemic. Despite the societal disruptions induced by the pandemic, there is no theoretical reason to suggest that people's expectations of treatment by the police would have changed as a function of the pandemic: people should still desire the same kind of procedurally just treatment from the police. And, indeed, the results from the regression models support this logic: I find that irrespective of the outcome variable (i.e., police responsibility, performance, or willingness to cooperate with police) and the type of procedural justice measure employed (i.e., with or without PPE), procedural justice is positively related to participants' views about the police. In this way, the findings complement other pandemic-related literature which has discussed the importance of procedural justice during this public health crisis (e.g., Bennett & Mazerolle, 2020; Farrow, 2020; Murphy et al., 2020; Nix et al., 2021).

As part of the second research question, I explored the effects of different items of PPE on participants' perceptions of procedural justice. Although the functional benefits of PPE for combatting the spread of the virus are well recognized, it is through these parallels that the findings suggest the importance of PPE's perceptual benefits. Relative to no PPE, participants overwhelmingly perceived images of the police officer using PPE to be more procedurally just. Moreover, and consistent with prior literature (e.g., Simpson & Sandrin, 2021), more perceptually salient items of PPE induced more favourable perceptions of the officer. By exhibiting more visual prominence on an officer, certain types of PPE may provide stronger signals to indicate what "safe" in-person contact ought to look like during the pandemic.

I also find an additive effect for items of PPE, such that an increase in the total number of items of PPE used by the officer is often associated with greater perceptions of procedural justice. Interestingly enough, these findings extend to the medical gloves and full-face respirator mask combination, the latter item of which has traditionally been perceived negatively due its potential relationship with police militarization (Simpson & Sandrin, 2021). This particular finding underscores the importance of context: although this mask may be perceptually problematic in many situations (due in part to its relationship with police militarization; Kraska, 2007; Lawson, 2019), it may be justified during a pandemic given its effectiveness in combatting the spread of the virus. In this way, not only does an officer's use of a full-face respirator mask allow for perhaps the "safest" in-person contact during the pandemic, which then allows the police to provide the public with an opportunity to exhibit voice, it also conveys an officer's attempt to display trustworthy motives and respect for the health and safety of the public. The importance of safety precautions during this pandemic are well validated, and the findings indicate that an officer's use of PPE may be one way to convey these safe intentions.

Finally, while past literature has found that officers' aesthetics can impact perceptions of their characteristics, the findings also reveal that officers' aesthetics can impact how people may forecast an interaction with police. For example, examining procedural justice as an antecedent to an interaction *vis-à-vis* an officer's perceptual cues may help to identify how the public expects that an interaction will unfold, which could have implications for the interaction itself. Take the findings from the ancillary analyses regarding behavioural statements as one example: participants overwhelmingly

rated images of the officer using PPE to be dressed adequately, as sharing participants' values, and as doing their best to protect themselves and the community. These findings are an exemplar to suggest that the public expects frontline officers to use PPE during the pandemic, but also that PPE can serve as a catalyst for fostering positive perceptions of an officer's intent. Community policing models strive for uniformity between the community and the police. If the public expects the police to employ certain strategies (i.e., such as using PPE), but the police do not adhere to such expectations, the public may assess the police negatively. And, consistent with this logic, local police leaders have anecdotally cited an increase in complaints against officers for not using PPE during the pandemic. Past research by Skogan (2006) has found that negative police-public interactions have tremendous consequences for perceptions of police. It is thus important for the police to be able to mitigate areas of potential contention where possible. In a pandemic context, the findings from the thesis suggest that the police may be able to help initiate the process of fostering a positive interaction (or at least not a negative one) by being strategically equipped with PPE.

5.2. Policy Implications

The findings from this thesis have important implications for policy and practice. As Simpson (2019b) described, "officer appearance is embedded within all practices that involve the physical observation of police" (p. 112). Such observations encompass instances of both direct contact with the police as well as unceremonious occurrences where the public sees the police but does not have actual contact. In this way, the visual cues that police provide to the public, in this case by way of accoutrements, have tremendous implications for the way that the public perceives the police.

In the context of the COVID-19 pandemic, much has changed with respect to the "appropriateness" of how people ought to look, including the police. The use of PPE has been shown to effectively reduce the spread of the virus, and with that has come both formal and informal expectations that police use such equipment. The findings from the thesis provide evidence to suggest that the police's use of PPE provides much more than just functional benefits. Indeed, the police's use of PPE provides perceptual cues to suggest that they would be more procedurally just during public interactions. The outcomes evaluated in the thesis should therefore be relevant for all police agencies insofar that agencies may be able to bolster perceptions of procedural justice during the

pandemic by equipping front-line officers with PPE, particularly those with more visual salience and functionality.

With that being said, merely equipping officers with PPE at the organizational level in and of itself may be insufficient to elicit the positive perceptual effects discovered as part of the thesis. Police agencies need to ensure that individual officers are using such equipment appropriately, not only during contact with the public, but even in general situations in public settings (e.g., while conducting patrol with another officer). As described earlier, many people interact with the police in unceremonious manners that do not involve direct contact. However, people may still derive perceptual cues from the police during these indirect interactions, and the sight of multiple officers together who are not using PPE in public settings (even if they are not formally interacting with the public) could still result in less-than-ideal perceptions (provided that they are in close contact with each other but not using PPE). The findings from the thesis that officers are perceived as more procedurally just when using PPE may thus be relevant in many police interventions, interactions, and situations where officers are presented in public settings.

5.3. Limitations and Future Directions of Research

5.3.1. Data Collection

First, the cross-sectional data were collected in the months immediately following the WHO's declaration of COVID-19 as a pandemic. In the time since, many police agencies have varied in how they have enforced pandemic-related regulations. For example, some agencies have begun to adopt a more enforcement-based approach (e.g., Benning, 2020). Many agencies have also reduced their physical attendance at some types of calls (e.g., for less serious or non-active events) in order to avoid in-person contact during the pandemic. It is possible that these changes in approach may have induced changes in perception that I am unable to explore with these data. Given the diverse range of pandemic-related regulations and associated police initiatives, future research in this domain could benefit from more geographically targeted research as well as investigations that examine public perceptions on specific types of police initiatives, including during the pandemic.

Relatedly, there have also been several high-profile incidents involving police violence in recent time that have re-ignited movements to defund the police. For example, the murder of George Floyd has sparked considerable unrest and protests to end police brutality. There is a possibility that events like Floyd's murder may have affected public assessments of police and willingness to cooperate with police in ways that I am unable to assess as part of the study. In this way, future research should seek to employ longitudinal methods to examine how salient incidents impact public perceptions of police.

5.3.2. Methods

Second, the data were collected using a rigorously controlled laboratory-style framework where participants viewed static images of a police officer. Past research in this domain has commonly employed this style of paradigm due to its strong internal validity and the ability to disentangle the impact of police appearance on perceptions of police. Although such literature has established that merely looking at an image of a police officer can elicit certain visual cues, the paradigm employed as part of the study is unable to capture more dynamic aspects inherent to real-world police-public interactions, such as the interaction in its entirety, which may be relevant for perceptions of police (e.g., officer mannerisms, speech, etc.). Thus, future research should employ field experiments (e.g., where researchers work alongside police officers on-duty) and/or live-action stimuli (e.g., videos of police-public interactions), which more closely mirror real-life interactions, to test these phenomena. Simultaneously, future research should also investigate the potential feedback loops that initial perceptions of police have on subsequent officer and public behaviour during police-public interactions (e.g., Simpson, 2019b).

5.3.3. Stimuli

Types of PPE

Third, the inventory of PPE items tested was not exhaustive. Although the items that were tested as part of the paradigm are commonly being used by police during the pandemic, there are still other items of PPE that were not explored (e.g., "gaiter" style face masks, mouth shields, etc.). It is possible that these untested items could also

impact perceptions in meaningful ways, and future research should accordingly investigate these types of PPE, among others.

Officer Characteristics

Fourth, the images used as part of the paradigm involved a single police officer who self-identified as male and White. Although there is no theoretical reason to speculate that the specific effects of PPE would systematically vary as a function of uniformed officer characteristics, it is possible that the inclusion of different officers may have elicited different effects (e.g., a self-identified female officer). Accordingly, future research should incorporate a diversity of officers in related paradigms.

5.3.4. Other Directions of Research in the Police Aesthetics Domain

Lastly, while not a limitation of the thesis, researchers in the police aesthetics domain should continue to empirically examine other elements of police aesthetics not yet tested. For example, the Royal Canadian Mounted Police (RCMP) recently amended its uniform and dress policy to allow for officers to grow beards and wear long hair in a braid or ponytail (Kingdon, 2019). Similarly, police agencies have begun to be more accommodating with policies regarding the visibility of tattoos. With that being said, limited empirical research has examined the effects of such aesthetics for perceptions of police. Given the importance of police aesthetics for eliciting such perceptions, it is now more important than ever for researchers to forefront such inquiries so that the findings can be reflected in evidence-based police policies.

Chapter 6.

Conclusion

Very few incidents in recent time have impacted society like the COVID-19 pandemic. Among such incidents, even fewer have resulted in the potentiality for fatal outcomes, simply from daily public interactions. Indeed, with over 202 million confirmed cases and 4.2 million deaths as of the time of this writing, the highly contagious virus has caused irreparable harms. And, while the introduction of pandemic-related regulations was necessary to combat the spread of the virus, the regulations too have had a tremendous impact on society, due to the restrictions it has placed on the public's freedom in ways seldom seen before. The result of both the pandemic and associated regulations is a society that has seized to function in the capacity that so many have grown accustomed to. In this vein, the pandemic and associated regulations have fundamentally changed contemporary society and the ways in which people operate and engage with each other (Simpson & Sandrin, 2021).

Amidst such changes to society induced as a function of the pandemic, first responders including the police have had little choice but to remain on duty. Working from home has not been an option for frontline officers, and in many instances, public contact on the job is unavoidable. And, given the increased range of responsibilities afforded to police in recent history, it is thus not surprising that the responsibility of enforcing pandemic-related regulations has also been bestowed upon their shoulders. Although the police have remained focused on preventing further spread of the virus, which has also resulted in the police's adoption of PPE for daily use, both the regulations and the police's enforcement of such regulations have been the subject of contention. Accordingly, this thesis sheds insight into this contention, and the findings provide important implications for perceptions of police: procedural justice positively affects public assessments of police and willingness to cooperate with police. Moreover, perceptions of procedural justice can be moderated by the police's use of PPE.

In more recent time, COVID-19 vaccination rates have begun to increase slowly but steadily across North America and the rest of the world. In this way, it appears that society is nearly ready to turn the corner and shift away from the pandemic. Although the

end of the pandemic appears to be in near sight, these next transitional steps will result in yet another set of uncertainties for society. For example, it remains to be seen whether society will ever return to the old “normal,” and the implications of the virus moving forward are still not well understood. It is unknown when the declaration of COVID-19 as a pandemic will end, or when pandemic-related regulations such as the everyday use of PPE will cease to exist. For police, this means that they will continue to manage regulations related to the pandemic as they unfold. And, as long as the use of PPE is contextually relevant, the police’s use of PPE can not only help to reduce the spread of the virus, but they can also signal to the public that they wish to engage in procedurally just behaviour during the pandemic. With society beginning to shift away from the pandemic, though, the findings from the thesis still provide important implications for perceptions of police should similar public health crises ever emerge in the future.

References

- Albas, D. C., & Albas, C. A. (1989). Meaning in context: The impact of eye contact and perception of threat on proximity. *The Journal of Social Psychology, 129*(4), 525–531.
- Aleta, A., Martin-Coral, D., Piontti, A. P. Y., Ajelli, M., Litvinova, M., Chinazzi, M., Dean, N. E., Halloran, M. E., Longini, I. M., Jr., Merler, S., Pentland, A., Vespignani, A., Moro, E., & Moreno, Y. Modeling the impact of social distancing, testing, contact tracing and household quarantine on second-wave scenarios of the COVID-19 epidemic. *Nature Human Behaviour, 4*(9), 964-971.
- Ashby, M. P. (2020). Changes in police calls for service during the early months of the 2020 coronavirus pandemic. *Policing: A Journal of Policy and Practice, 14*(4), 1054-1072.
- Baker, G. (2020, April 14). Grocery workers and customers say social distancing inside stores is difficult amid coronavirus pandemic. *Seattle Times*.
<https://www.seattletimes.com/business/grocery-workers-and-customers-say-social-distancing-inside-stores-is-difficult-amid-coronavirus-pandemic/>
- Behling, D. (1994). School uniforms and person perception. *Perceptual and Motor Skills, 79*(1), 723-729.
- Bell, D. J. (1982). Police uniforms, attitudes, and citizens. *Journal of Criminal Justice, 10*(1), 45–55.
- Bennett, S., & Mazerolle, L. (2020). Policing the pandemic with a PACT. *The Journal for Women and Policing, 45*(1), 7–9.
- Benning, K. (2020, December 7). Saskatoon police, RCMP have had hundreds of calls responding to COVID-19 health regulations. *Global News*.
<https://globalnews.ca/news/7507391/saskatoon-police-rcmp-calls-coronavirus-regulations/>
- Bickman, L. (1974). The social power of a uniform. *Journal of Applied Social Psychology, 4*(1), 47–61.
- Bolger, P. C., & Walters, G. D. (2019). The relationship between police procedural justice, police legitimacy, and people's willingness to cooperate with law enforcement: A meta-analysis. *Journal of Criminal Justice, 60*(1), 93-99.
- Boyanowsky, E. O., & Griffiths, C. T. (1982). Weapons and eye contact as instigators or inhibitors of aggressive arousal in police-citizen interaction. *Journal of Applied Social Psychology, 12*(5), 398–407.

- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6(1), 3–5.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29(6), 2156–2160.
- Centers for Disease Control and Prevention. (2020, November 6). What law enforcement personnel need to know about Coronavirus disease 2019 (COVID-19). <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-law-enforcement.html>
- Chu, D. K., Akl, E. A., Duda, S., Solo, K., Yaacoub, S., & Shünemann, H. J. (2020). Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: A systematic review and meta analysis. *The Lancet*, 395(10242), 1973–1987.
- Cook, T. M. (2020). Personal protective equipment during the coronavirus disease (COVID) 2019 pandemic – a narrative review. *Anaesthesia: Peri-Operative Medicine, Critical Care and Pain*, 75(7), 920–927.
- Davis, G. (2020, October 16). Coronavirus: Lindsay, Ont. Resident charged with failing to self quarantine for 14 days. *Global News*. <https://globalnews.ca/news/7401036/coronavirus-lindsay-ont-resident-quarantine-act-charge/>
- Dawson, C. (2020, December 29). Police ready to hand out fines at New Year's Eve parties. *Bay Today*. <https://www.baytoday.ca/local-news/police-ready-to-hand-out-fines-at-new-years-eve-parties-3219075>
- Damhorst, M. L. (1990). In search of a common thread: Classification of information communicated through dress. *Clothing and Textiles Research Journal*, 8(1), 1-12.
- Durkin, K., & Jeffery, L. (2000). The salience of the uniform in young children's perception of police status. *Legal and Criminological Psychology*, 5(1), 47–55.
- Dubord, N., Parent, C., & Parent, R. (2021). *Client-centered policing: A focus on positive community contacts within Canada*. In J. F. Albrecht & G. den Heyer (Eds.), *Enhancing police service delivery: Global perspectives and contemporary policy implications* (pp. 143-158). Springer.
- Eneas, B. (2020, December 27). Regina police chief reflects on 2020. *CBC*. <https://www.cbc.ca/news/canada/saskatchewan/rps-chief-evan-bray-2020-year-end-1.5855333>
- Farrow, K. (2020). Policing the pandemic in the UK using the principles of procedural justice. *Policing: A Journal of Policy and Practice*, 14(3), 587-592.

- French, C. E., McKenzie, B. C., Coope, C., Rajanaidu, S., Paranthaman, K., Pebody, R., Nguyen-Van-Tam, J. S., Higgins, J. P. T., & Beck, C. R. (2016). Risk of nosocomial respiratory syncytial virus infection and effectiveness of control measures to prevent transmission events: A systematic review. *Influenza and Other Respiratory Viruses*, 10(4), 268–290.
- Garson, G. D. (2014). *Multiple regression*. Statistical Associates Publishing.
- Jackson, J., & Bradford, B. (2009). Crime, policing and social order: on the expressive nature of public confidence in policing. *The British Journal of Sociology*, 60(3), 493-521.
- Jackson, J., Bradford, B., Stanko, B., & Hohl, K. (2013). *Just authority: Trust in the police in England and Wales*. Routledge.
- Jennings, W. G., & Perez, N. M. (2020). The immediate impact of COVID-19 on law enforcement in the United States. *American Journal of Criminal Justice*, 45(4), 690-701.
- Johnson, K. K., Schofield, N. A., & Yurchisin, J. (2002). Appearance and dress as a source of information: A qualitative approach to data collection. *Clothing and Textiles Research Journal*, 20(1), 125-137.
- Johnson, R. R. (2017, August 11). The psychological influence of the police uniform. *Police1*. <https://www.police1.com/police-products/apparel/uniforms/articles/the-psychological-influence-of-the-police-uniform-bhN9cdehTsvjzbMh/>
- Johnson, R. R., Plecas, D., Anderson, S., & Dolan, H. (2015). No hat or tie required: Examining minor changes to the police uniform. *Journal of Police and Criminal Psychology*, 30(3), 158–165.
- Jones, D. J. (2020). The potential impacts of pandemic policing on police legitimacy: Planning past the COVID-19 crisis. *Policing: A Journal of Policy and Practice*, 14(3), 579–586.
- Joseph, N., & Alex, N. (1972). The uniform: A sociological perspective. *American Journal of Sociology*, 77(4), 719–730.
- Judd, A. (2021, January 1). Dozens, including former Canucks anthem singer, attend Vancouver NYE anti-mask rally. *Global News*. <https://globalnews.ca/news/7550669/new-years-eve-anti-mask-freedom-rally-vancouver/>
- Karakus, O. (2017). Instrumental and normative pathways to legitimacy and public cooperation with the police in Turkey: Considering perceived neighborhood characteristics and local government performance. *Justice Quarterly*, 34(1), 25-54.

- Kingdon, T. (2019, July 5). With changes to dress code, RCMP letting its hair down. *CBC*. <https://www.cbc.ca/news/canada/prince-edward-island/pei-rcmp-uniform-change-1.5200558>
- Kraska, P. B. (2007). Militarization and policing: Its relevance to 21st century police. *Policing: A Journal of Policy and Practice*, 1(4), 501–513.
- Lawson, E. (2019). Trends: Police militarization and the use of lethal force. *Political Research Quarterly*, 72(1), 177–189.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. Plenum Press.
- Lindsley, W. G., Noti, J. D., Blachere, F. M., Szalajda, J. V., & Beezhold, D. H. (2014). Efficacy of face shields against cough aerosol droplets from a cough simulator. *Journal of Occupational and Environmental Hygiene*, 11(8), 509–518.
- Little, S. (2021, May 23). COVID-19: B.C. RCMP turn back 103 vehicles, fine 2 at long weekend checkpoints. *Global News*. <https://globalnews.ca/news/7887667/bc-long-weekend-covid-checkpoints/>
- Mauro, R. (1984). Uniforms on perceptions and problems of police officers. *Journal of Applied Social Psychology*, 14(1), 42-56.
- Mazerolle, L., Bennett, S., Antrobus, E., & Eggins, E. (2012). Procedural justice, routine encounters and citizen perceptions of police: Main findings from the Queensland Community Engagement Trial (QCET). *Journal of Experimental Criminology*, 8(4), 343-367.
- McCarthy, M., Murphy, K., Sargeant, E., & Williamson, H. (2021). Policing COVID-19 physical distancing measures: Managing defiance and fostering compliance among individuals least likely to comply. *Policing and Society*. Advance online publication. <https://doi.org/10.1080/10439463.2020.1869235>
- Mellis, A. M., & Bickel, W. K. (2020). Mechanical Turk data collection in addiction research: Utility, concern and best practices. *Addiction*, 115(10), 1960-1968.
- Miethe, T. D., Venger, O., Lieberman, J. D. (2019). Police use of force and its video coverage: An experimental study of the impact of media source and content on public perceptions. *Journal of Criminal Justice*, 60(1), 35–46.
- Mortensen, K., & Hughes, T. L. (2018). Comparing Amazon’s Mechanical Turk platform to conventional data collection methods in the health and medical research literature. *Journal of General Internal Medicine*, 33(4), 533–538.
- Muckenfuss, A. (2020, May 24). Policing the pandemic of 1918. <https://lawenforcementmuseum.org/2020/03/24/policing-the-pandemic-of-1918/>

- Mukamul, R. (2020, May 22). Eye care during the coronavirus pandemic. *American Academy of Ophthalmology*. <https://www.aao.org/eye-health/tips-prevention/coronavirus-covid19-eye-infection-pinkeye>
- Murphy, K., Hinds, L., & Fleming, J. (2008). Encouraging public cooperation and support for police. *Policing and Society*, 18(2), 136-155.
- Murphy, K., Sargeant, E., & Cherney, A. (2015). The importance of procedural justice and police performance in shaping intentions to cooperate with the police: Does social identity matter? *European Journal of Criminology*, 12(6), 719-738.
- Murphy, K., Williamson, H., Sargeant, E., & McCarthy, M. (2020). Why people comply with COVID-19 social distancing restrictions: Self-interest or duty? *Australian & New Zealand Journal of Criminology*, 53(4), 477–496.
- Nagin, D. S., & Telep, C. W. (2017). Procedural justice and legal compliance. *Annual Review of Law and Social Science*, 13(1), 5–28.
- Nickels, E. (2008). Good guys wear black: Uniform color and citizen impressions of police. *Policing: An International Journal of Police Strategies & Management*, 31(1), 77-92.
- Nikolai, L. A., Meyer, C. G., Kremsner, P. G., & Velavan, T. P. (2020). Asymptomatic SARS Coronavirus 2 infection: Invisible yet invincible. *International Journal of Infectious Diseases*, 100(1), 112-116.
- Nix, J., Ivanov, S., & Pickett, J. T. (2021). What does the public want police to do during pandemics? A national experiment. *Criminology & Public Policy*. Advance online publication. <https://doi.org/10.1111/1745-9133.12535>
- O'Neill, J., Swenson, S. A., Stark, E., O'Neill, D. A., & Lewinski, W. J. (2018). Protective vests in law enforcement: A pilot survey of public perceptions. *Journal of Police and Criminal Psychology*, 33(2), 100–108.
- Paek, S. L. (1986). Effect of garment style on the perception of personal traits. *Clothing and Textiles Research Journal*, 5, 10-16.
- Paolacci, G., Chandler, J., & Ipeirotis, P. G. (2010). Running experiments on Amazon Mechanical Turk. *Judgement and Decision Making*, 5(5), 411–419.
- Pica, E., Sheahan, C. L., Pozzulo, J., & Bennell, C. (2020). Guns, gloves, and tasers: Perceptions of police officers and their use of weapon as a function of race and gender. *Journal of Police and Criminal Psychology*, 35(3), 348–359.
- Reisig, M. D., Tankebe, J., & Mesko, G. (2012). Procedural justice, police legitimacy, and public cooperation with the police among young Slovene adults. *Journal of Criminal Justice and Security*, 14(2), 147-164.

- Roberge, R. J. (2016). Face shields for infection control: A review. *Journal of Occupational and Environmental Hygiene*, 13(4), 235–242.
- Robinson, K. (2021, May 4). ‘This could be manslaughter’: Legal experts warn about hosting parties during COVID-19. *Global News*.
<https://globalnews.ca/news/7833891/hosting-parties-covid-19-manslaughter/>
- Rocca, R. (2020a, April 10). Coronavirus: Toronto holding physical distancing enforcement blitz over holiday weekend. *Global News*.
<https://globalnews.ca/news/6804526/toronto-physical-distancing-enforcement-blitz/>
- Rocca, R. (2020b, April 11). Coronavirus: ‘Zero tolerance’ for those who disobey physical distancing, Toronto police chief says.
<https://globalnews.ca/news/6807347/coronavirus-toronto-mayor-physical-distancing/>
- Salerno, J. M., & Sanchez, J. (2020). Subjective interpretation of “objective” video evidence: Perceptions of male versus female police officers’ use-of-force. *Law and Human Behavior*, 44(2), 97–112.
- Sandrin, R., & Simpson, R. (2021). Public assessments of police during the COVID-19 pandemic: The effects of procedural justice and personal protective equipment. *Policing: An International Journal*. Advance online publication.
<https://doi.org/10.1108/PIJPSM-03-2021-0045>
- Sargeant, E., Murphy, K., McCarthy, M., & Williamson, H. (2021). The formal-informal control nexus during COVID-19: What drives informal social control of social distancing restrictions during lockdown? *Crime & Delinquency*. Advance online publication. <https://doi.org/10.1177/0011128721991824>
- Simpson, R. (2017). The Police Officer Perception Project (POPP): An experimental evaluation of factors that impact perceptions of the police. *Journal of Experimental Criminology*, 13(3), 393–415.
- Simpson, R. (2019a). Police vehicles as symbols of legitimacy. *Journal of Experimental Criminology*, 15(1), 87–101.
- Simpson, R. (2019b). *Officer appearance and perceptions of police: Beyond an instrumental function, toward a signaling framework* (ID: Simpson_uci_0030D_15782). [Doctoral dissertation, University of California Irvine]. ProQuest Dissertations Publishing.
- Simpson, R. (2020). Officer appearance and perceptions of police: Accoutrements as signals of intent. *Policing: A Journal of Policy and Practice*, 14(1), 243–257.
- Simpson, R. (2021). When police smile: A two sample test of the effects of facial expressions on perceptions of police. *Journal of Police and Criminal Psychology*, 36(2), 170–182.

- Simpson, R., & Croft, A. (2020). Seeing gender in policing: Uniforms and perceived aggression. *Women & Criminal Justice*. Advance online publication. <https://doi.org/10.1080/08974454.2020.1842290>
- Simpson, R., & Sandrin, R. (2021). The use of personal protective equipment (PPE) by police during a public health crisis: An experimental test of public perception. *Journal of Experimental Criminology*. Advance online publication. <https://doi.org/10.1007/s11292-020-09451-w>
- Singer, M. S., & Singer, A. E. (1985). The effect of police uniform on interpersonal perception. *The Journal of Psychology*, 119(2), 157–161.
- Skogan, W. G. (2006). Asymmetry in the impact of encounters with police. *Policing and Society*, 16(2), 99–126.
- Smith, H. J., Tyler, T. R., Huo, Y. J., Ortiz, D. J., & Lind, E. A. (1998). The self-relevant implications of the group-value model: Group membership self-worth, and treatment quality. *Journal of Experimental Social Psychology*, 34(5), 470–493.
- Sunshine, J., & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, 37(3), 513–548.
- Thomas, J. P., Srinivasan, A., Wickramarachchi, C. S., Dhesi, P. K., Hung, Y. M., & Kamath, A. V. (2020). Evaluating the national PPE guidance for NHS healthcare workers during the COVID-19 pandemic. *Clinical Medicine*, 20(3), 242–247.
- Thomson, C. (2020, November 20). Delta police busied by COVID-19, Diwali. *Delta Optimist*. <https://www.delta-optimist.com/local-news/delta-police-busied-by-covid-19-diwali-3149038>
- Tsekouras, P. (2020, September 23). Fourteen people slapped with \$880 fines after police bust large gathering in Toronto. *CTV News*. <https://toronto.ctvnews.ca/fourteen-people-slapped-with-880-fines-after-police-bust-large-gathering-in-toronto-1.5116559>
- Tyler, T. R. (1990). *Why people obey the law: Procedural justice, legitimacy, and compliance*. Yale University Press.
- Tyler, T. R. (2003). Procedural justice, legitimacy, and the effective rule of law. *Crime and Justice*, 30(1), 283–357.
- Tyler, T. R. (2004). Enhancing police legitimacy. *The Annals of the American Academy of Political and Social Science*
- Tyler, T. R., & Boeckmann, R. J. (1997). Three strikes and you are out, but why? The psychology of public support for punishing rule breakers. *Law & Society Review*, 31(2), 237–266.

- Tyler, T. R., & Fagan, J. (2008). Legitimacy and cooperation: Why do people help the police fight crime in their communities? *Ohio State Journal of Criminal Law*, 6(1), 231-275.
- Tyler, T. R., & Huo, Y. J. (2002). *Trust in the law: Encouraging public cooperation with the police and courts*. Russell Sage Foundation.
- Vancouver Police Department. (2020). VPD COVID-19 update. <https://vancouver.ca/police/covid-19.html>
- Volpp, J. M., & Lennon, S. J. (1988). Perceived police authority as a function of uniform hat and sex. *Perceptual and Motor Skills*, 67(1), 815-824.
- White, M. D., & Fradella, H. F. (2020). Policing a pandemic: Stay-at-home regulations and what they mean for the police. *American Journal of Criminal Justice*, 45(4), 702–717.
- World Health Organization. (2020a, July 9). Transmission of SARS-CoV-2: Implications for infection prevention precautions. <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>
- World Health Organization (2020b, July 9). Coronavirus disease (COVID-19): How is it transmitted? <https://www.who.int/news-room/q-a-detail/q-a-how-is-covid-19-transmitted>
- World Health Organization (2020c, July 31). Rolling updates on coronavirus disease (COVID-19). <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>
- World Health Organization (2020d). Naming the coronavirus disease (COVID-19) and the virus that causes it. [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it)
- World Health Organization (2020e, March 19). Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19). https://who.int/iris/bitstream/handle/10665/331498/WHO-2019-nCoV-IPCPPE_use-2020.2-eng.pdf
- World Health Organization (2020f). Coronavirus prevention. https://www.who.int/health-topics/coronavirus#tab=tab_2
- World Health Organization (2021). WHO coronavirus (COVID-19) dashboard. <https://covid19.who.int/>

Yesberg, J. A., Bradford, B., & Dawson, P. (2020). An experimental study of responses to armed police in Great Britain. *Journal of Experimental Criminology*, 17(1), 1-13.

Appendix.

An Example of the Paradigm Administered to Participants



* 1. Please rate your level of agreement with the following statements about the PICTURED OFFICER.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
This officer would listen to me before making a decision.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer would treat me with dignity and respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer would have my best interests in mind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer would be fair when making decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer is doing their best to protect themselves and the community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer would be polite when dealing with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer is adequately dressed given the conditions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This officer shares my values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next