

PERCEPTIONS OF POLICE USE OF FORCE

**Perceptions of Police Use of Force: The Role of Context-Specific Factors,
Police Legitimacy, and Belief in a Just World**

by

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THESIS EXAMINATION INFORMATION

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An oral defense of this thesis took place on September 6, 2022, in front of the following examining committee:

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The above committee determined that the thesis is acceptable in form and content and that a satisfactory knowledge of the field covered by the thesis was demonstrated by the candidate during an oral examination. A signed copy of the Certificate of Approval is available from the School of Graduate and Postdoctoral Studies.

PERCEPTIONS OF POLICE USE OF FORCE

Abstract

This thesis explores various factors that could explain variations in how acceptable police use of force is perceived to be among a Canadian sample. Four text-based vignettes depicting a police use of force encounter were used in the current study. The vignettes manipulated two factors that were hypothesized to influence perceptions of police use of force: (1) civilian resistance during the encounter (resistant versus non-resistant) and (2) disciplinary action imposed on the police officer that used force (suspended versus not suspended). Perceptions of police legitimacy and Belief in a Just World were also measured to assess whether prior attitudes and beliefs influence how acceptable police use of force is viewed. Only civilian resistance during the encounter and increased perceptions of police legitimacy were found to be significantly associated with higher acceptability judgements of the police officer's actions. An exploratory analysis revealed that civilian resistance during the encounter was also significantly associated with higher ratings of blame toward the civilian for the use of force applied by the police officer in the vignettes.

Keywords: police use of force; legitimacy

AUTHOR'S DECLARATION

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STATEMENT OF CONTRIBUTIONS

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication. I have used standard referencing practices to acknowledge ideas, research techniques, or other materials that belong to others. Furthermore, I hereby certify that I am the sole source of the creative works and/or inventive knowledge described in this thesis.

PERCEPTIONS OF POLICE USE OF FORCE

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Perceptions of Police Use of Force: The Role of Context-Specific Factors, Police Legitimacy, and Belief in a Just World

Recent events involving police-civilian encounters have put a spotlight on the topic of controversial police use of force. For example, there is the video of the murder of George Floyd where Floyd is handcuffed on his stomach and begging for his life for nearly 9 minutes, with a police officer kneeling on his neck and restricting his ability to breathe (Hill et al., 2020). The video captures the final moments of Floyd's life, who died with a police officer still on top of him while several other officers stood by watching. In Canada, a released cellphone video showed a Toronto Police sergeant tasing and repeatedly stomping on Andrew Henry, who was face-down on the pavement and seemingly unresponsive at the time the officer applied such force (Ontario Human Rights Commission, n.d.).

Although police departments across the U.S. and Canada regularly fail to release official data or accessible information regarding police use of force (Jackman, 2021; Samuels-Wortley 2021), these incidents between police and citizens are being increasingly captured by cell phones or police body-worn cameras and shared in mainstream media (Brown, 2015), making the influence of these incidents on public opinion an important topic of academic consideration. The available research on this topic demonstrates that exposure to police violence can have adverse effects on public attitudes toward police, at least in the short term (Weitzer, 2002).

The legitimacy of police organizations especially seems to be heavily influenced by use of force incidents and other police practices (e.g., Jackson et al., 2015; Kochel, 2015; Tyler et al., 2014), which has important implications for how the public chooses to cooperate and engage with police (Sunshine & Tyler, 2003). For example, legitimacy can influence the willingness of the public to report crimes to the police and assist with investigations, thus impeding the ability

of police to work collaboratively with the public to maintain social order (Tyler & Fagan, 2008). Despite the importance of the topic, less is known about what factors influence judgements toward police use of force, which may help to explain why such incidents are experienced differently depending on the observer (Brown & Benedict, 2002; Girgenti-Malone et al., 2017; Kyprianides et al., 2021).

Police Legitimacy

It is well documented that negative police encounters with civilians can influence perceptions of police (Kochel, 2015; Milani, 2020). In particular, views about the legitimacy of police, which refers to whether the public perceives police as a legitimate source of authority, appear to be heavily questioned or damaged following such negative encounters with police. This is true for encounters both personally experienced and those witnessed (Tankebe et al., 2016; Tyler, 2001; Tyler et al., 2014). In other words, individuals partly judge the legitimacy of police not only on police conduct during direct, personal encounters, but also during contact with other members of the public. Thus, even individuals with little to no contact with police generate and maintain normative judgements of police based on their beliefs about them. These beliefs are largely shaped by societal norms and expectations of police conduct (e.g., positive expectations that police generally act in ways that are procedurally fair, distributively fair, effective, and within reasonable limits of their authority; Peffley & Hurwitz, 2010; Tankebe et al., 2016; Trinkner & Tyler, 2016).

For the most part, evaluations of legitimacy tend to be linked to internal assessments about the fairness of authorities' or institutions' procedures and practices, or in other words, procedural-justice assessments (e.g., Ewanation et al., 2019; Sunshine & Tyler, 2003). The general trend of such assessments is that when police are viewed as having acted in a fair,

neutral, and accountable way, they are perceived as more legitimate (e.g., Jackson et al., 2012; Tyler et al., 2014). When examining the influence of use of force incidents specifically on public perceptions of police legitimacy, the available evidence suggests that exposure to such incidents can, in fact, bruise public perceptions of police legitimacy and, in part, trust in the police (e.g., Milani, 2020). For example, Kochel (2015) found that exposure to the controversial police shooting of Michael Brown appeared to influence St. Louis County residents' views toward police legitimacy and their level of trust in police, which were significantly lower immediately following the shooting than prior to it. Similar findings were reported by Jackson et al. (2012), who found that young men from ethnic minority communities who had seen police use unjustified violence, and who lived with somebody who had seen police use unjustified violence, tended to view police as less legitimate. Such findings highlight how beliefs about police are largely contingent on observed police behaviour when interacting with civilians.

When investigating public attitudes toward police violence, or use of force more generally, the literature suggests that a distinction between reasonable and excessive force is important. Typically, higher public support for police use of force is expressed when the force used is considered to be reasonable in comparison to when it is viewed as excessive (Johnson & Kuhns, 2009). Notably, however, the public typically lacks awareness of a police officer's legal authority to use force, such as when force is reasonable versus when force exceeds the bounds of their authority (Cyr, 2016). Thus, whether police use force that meets the legal criteria of reasonable or not is seemingly less influential to public attitudes toward police and police use of force than are citizens' own judgements of whether the force used was reasonable in a given situation. Even so, not everyone judges police use of force incidents in the same way (e.g., Frederick et al., 2017; Girgenti-Malone et al., 2017), and more research is needed to uncover

relevant factors that cause certain individuals to accept and justify police use of force, even force that exceeds the legal authorities of police. A deeper investigation into this area may facilitate a stronger understanding of how the public views police use of force and in turn may lead to the discovery of more consistent, previously overlooked factors that explain differential public responses to police use of force.

Differential Reactions to Police Use of Force

Minority populations, particularly Blacks and Latinos, express less positive views toward police in general compared to Whites (Brunson, 2007; Lai & Zhao, 2010; Tyler, 2005), and tend to be more critical or disapproving of police use of force specifically (Thompson & Lee, 2004; Weitzer & Tuch, 2004). For example, one study found that in the weeks following a high-profile controversial incident involving six police officers of various racial backgrounds and a Black victim, attitudes toward the police became more negative among Black students but more positive among White students, suggesting that race is a crucial factor in determining how individuals respond to expressions of police authority (Frederick et al., 2017). Similarly, after the highly publicized Rodney King incident, Lasley (1994) demonstrated that attitudes toward the police significantly degraded; however, for Black participants, these negative attitudes were more extreme and tended to persist longer than for White participants. Weitzer (2002) reported comparable findings, in that attitudes toward the police substantially dropped following police misconduct incidents in Los Angeles and New York, even more so among the Black community.

In urban communities, perceptions of the police have been largely shaped by experiences of injustice by police and the criminal justice system more broadly (Jones, 2014; Weitzer & Tuch, 2005). This may help to explain the consistently observed racial differences in both

general attitudes toward the police and reactions to controversial expressions of police authority when they occur. Zero-tolerance policing approaches that have historically targeted minority neighbourhoods and the disproportionate levels of contact with police in such neighbourhoods may also help to explain these racial disparities (Rice & Parkin, 2010; Eith & Druose, 2011).

Beyond race, characteristics such as gender (Brown & Benedict, 2002; Thompson & Lee, 2004), age (Brown & Benedict, 2002), class (Schuck et al., 2005), and neighbourhood context (Resig & Parks, 2000) have also been linked to differential reactions to police use of force and other expressions of police authority. Additionally, political affiliation has been shown to influence such perceptions. The general trend of such findings being that those with more conservative political identities tend to hold less critical attitudes toward police use of force and other expressions of police authority compared to those with more liberal political identities (e.g., Gerber & Jackson 2017; Graziano et al., 2010; Heen et al., 2017; Roche & Roux, 2017).

Ultimately, judgements about police use of force are subjective (Alpert & Smith, 1994), and may not solely be informed by specific facts of use of force cases as the previous discussion highlights. Instead, judgements are likely informed in part by personal characteristics related to general beliefs about police (e.g., Kyprianides et al., 2021; Yesberg et al., 2021), racial/ethnic and political identities of observers (e.g., Frederick et al., 2017; Roche & Roux, 2017), as well as more complex psychological and sociological factors and worldviews as the succeeding discussion suggests (Milani, 2020; Tyler & Wakslak, 2006; Weitzer & Tuch, 2004).

Belief in a Just World

An extensive amount of research has explored the role of Belief in a Just World (BJW) as a worldview that influences reactions to victims of various unjust circumstances (e.g., Aguiar et al., 2008; Correia & Vala, 2003; Hafer, 2000). However, very little research to date has

investigated BJW as an audience characteristic that may be relevant to how police use of force incidents are viewed and accepted (e.g., Kyprianides et al., 2021; Milani, 2020).

The BJW theory was developed by Lerner (1980), who speculated that most individuals subscribe to a line of thinking that encompasses the notion that “you get what you deserve, and you deserve what you get,” even though this is often not the case. According to Lerner, we are all attentive to the concept of justice to some degree, which means that this belief is present in every individual; however, it is a belief that can be held more strongly by some than others (Rubin & Peplau, 1975). Research on the BJW theory typically demonstrates that this belief or attitudinal orientation helps an individual maintain psychological balance and well-being (Dalbert, 2001; Lerner, 2003). Furthermore, the BJW’s emphasis on reciprocity provides a means of justifying the status quo, in that every outcome one experiences is thought to be earned (Hafer & Choma, 2009).

Thus, this belief system serves as a psychological buffer against the harsh realities of the world and strengthens the view that individuals have a high degree of control over one’s own fate (Lerner, 2003). It allows individuals to cope with the injustices of the world by rationalizing that people experiencing unjust circumstances must have done something to deserve it or bring it upon themselves. In doing so, personal susceptibility is reduced, and perceptions of risk are lowered by believing that a similar fate could not befall them, as they themselves have done nothing to deserve it. Nonetheless, BJW remains fundamentally flawed in that these beliefs are factually inaccurate yet motivationally defended (Lerner, 2003).

Current Study

The current study examined factors that could potentially explain why some individuals accept and justify police use of force, even that which is more excessive or controversial in

nature, while others do not. Using text-based vignettes describing a police use of force incident, I manipulated two variables: (1) how resistant the civilian is during the incident (i.e., resistant: began to struggle as if getting ready to flee, or nonresistant: stood still with his hands up) and (2) post-incident information regarding whether the police officer faced disciplinary action (i.e., yes: suspended with pay, or no: no suspension). This allowed me to investigate whether these two situational factors shape how acceptable police use of force is judged to be [RQ1]. I expected hypothesized that the police use of force in the vignette would be perceived as more acceptable when the civilian was resistant in comparison to nonresistant. Although the current study explored whether disciplinary action following the use of force incident would influence how the use of force was viewed, no specific hypotheses were formulated for this variable since it has not been looked at in the previous literature.

Beyond situation-specific factors, individuals' prior belief systems and perceptions may also influence judgements of police use of force (e.g., Milani, 2020; Silver and Pickett, 2015; Yesberg et al., 2021), and the civilian involved. As such, the current study tested whether BJW, a system-justifying belief system, is predictive of judgements about police use of force in various scenarios [RQ2]. BJW has been associated with justifying the status quo and rationalizing the existence of inequalities across various unjust, victimizing situations (e.g., Jost & Hunyady, 2005; Olson & Hafer, 2001); however, only a limited amount of research has investigated the effect of this belief system within the context of a police use of force incident (e.g., Milani, 2020; Yesberg et al., 2021). Moreover, since prior perceptions of police have a demonstrated influence on perceptions of police use of force (e.g., Johnson & Kuhns, 2009; Milani, 2020; Yesberg et al., 2021), the current study also assessed whether perceptions of police legitimacy are associated with greater acceptance of police use of force and whether it is a better predictor of acceptability

judgements than BJW [RQ3]. I hypothesized that a stronger endorsement of BJW and police legitimacy would be associated with more accepting views toward the police use of force depicted in the vignettes, and that perceptions of police legitimacy would account for the most variance in acceptability judgements over BJW.

In addition, this thesis explored whether individuals found the civilian to be blameworthy for how the encounter in the vignette transpired. This exploratory analysis was aimed at investigating whether specific aspects of the encounter that were manipulated in the vignettes (i.e., civilian resistance and disciplinary action imposed on the police officer who used force) were associated with perceptions of the civilian, namely how responsible the civilian was perceived to be for the police officer's use of force. Given that these analyses were exploratory in nature, no specific hypotheses were developed.

Method

The current study utilized text-based vignettes to describe a police use of force incident wherein two police officers conduct a search on a civilian who fit the description of a suspect accused of using counterfeit money at a store (see Appendix F for full vignettes). As previously mentioned, the vignettes contained information pertaining to: (1) how resistant the civilian is portrayed to be during the incident (i.e., the "resistant" civilian begins to struggle as if about to flee, whereas the "nonresistant" civilian stands still with his hands up) and (2) post-incident information regarding whether the police officer faced disciplinary action (i.e., the officer either receives disciplinary action by being suspended or receives no disciplinary action).

The vignette manipulations resulted in four experimental groups and were used to assess how civilian resistance and disciplinary action imposed on the officer influence participants' judgements about the appropriateness of the officer's use of force and the civilian involved. The

use of vignettes is common in research assessing attitudes toward various forms of police conduct, and despite describing hypothetical scenarios, have proven successful in influencing participants' judgements about police (e.g., Kyprianides et al., 2020; Yesberg et al., 2021), and even police officers' opinions of the behaviour of other officers (e.g., Phillips, 2020). By using vignettes, I was also able to exert more control over potentially influential variables to use of force judgements (e.g., civilian resistance during the encounter, race of officer and civilian).

Participants also answered BJW and police legitimacy measures *prior* to reading their assigned use of force vignette, since a key aim of this research was to assess how participants' pre-existing beliefs and perceptions of police shape judgements of the police use of force incident and not how their beliefs and perceptions change as a result of reading the vignette. Similar to previous studies on perceptions of police use of force (e.g., Gerber & Jackson, 2017; Milani, 2020; Yesberg et al., 2021), after reading the vignette, participants were asked to rate how acceptable they viewed the police officer's actions to be. Unique to the proposed study, participants were also asked several questions regarding how blameworthy they perceived the civilian in the vignette to be. These questions were part of a more exploratory test of specific aspects of the just-world theory (Lerner, 2003).

The rationale behind the two chosen variable manipulations (i.e., civilian resistance and disciplinary action imposed on the police officer) was two-fold. First, media coverage and statements by public officials following controversial use of force incidents tend to provide similar information about the police officer(s) and/or civilian(s) involved in the incident (Boudreau et al., 2019). Thus, including information of this kind in the vignettes more closely reflected the way controversial use of force incidents are depicted in the media and as a result, they should have better replicated observer reactions to that of hypothetical police use of force

scenarios. Second, learning that an acting police officer faced disciplinary action (or did not) links individual incidents of police violence to broader evidence about what police and public officials are doing (or are not doing) in response to remedy the injustice (Boudreau et al., 2019). How that may influence the perceived threat to BJW was explored in this study, which in the context of other victimizing situations, is typically inferred from consequences like victim blaming (for a review, see Hafer & Bègue, 2005).

Participants

The initial sample consisted of 114 undergraduate students from Ontario Tech University who received course credit for completing the study. However, 23 participants (23.96%) were excluded from the analyses for incorrectly responding to two or more attention check questions embedded in the study, failing the manipulation check questions corresponding to the vignettes, and/or severely missing data. This resulted in a final sample of 91 participants, with a mean age of 21.6 years old ($SD = 5.69$; range = 16-47). Female participants ($n = 59$; 64.8%) made up the majority of the sample, and only 1 participant (1.1%) identified as non-binary. The sample was predominantly South Asian ($n = 40$; 44%), Caucasian ($n = 20$; 22%), and East Asian ($n = 12$; 13.2%). A breakdown of the final number of participants in each of the four conditions is shown in Table 1. Unfortunately, it was not possible to collect a sufficient amount of data for the analyses run ($n = 250$, as determined by a G*power analysis) due to REB delays which negatively impacted the data collection process.

Table 1*Vignette Frequencies*

| | | Responses | | |
|----------------------------|---|-----------|---------|------------------|
| | | N | Percent | Percent of Cases |
| vignettecount ^a | Resistant Civilian No Disciplinary Action Imposed | 27 | 29.7% | 29.7% |
| | Nonresistant Civilian Disciplinary Action Imposed | 22 | 24.2% | 24.2% |
| | Nonresistant Civilian No Disciplinary Action Imposed | 17 | 18.7% | 18.7% |
| | Resistant Civilian Disciplinary Action Imposed | 25 | 27.5% | 27.5% |
| Total | | 91 | 100.0% | 100.0% |

a. Dichotomy group tabulated at value 1.

Materials¹***Independent/Predictor Variables***

Vignettes. Participants read one of four vignettes that depicted a fictitious scenario wherein a police officer used controversial force against a civilian. The vignettes were a replication of the context that was presented in text to participants before watching a police use of force video in a study by Yesberg et al. (2021), which was found to influence perceptions of police use of force. The vignettes used in the current study were minimally altered to address the stated aims of this research, which included investigating whether (1) a civilian's resistance to police and (2) later disciplinary action imposed on the police officer influences how acceptable police use of force is judged to be. More specifically, I manipulated how resistant the civilian

¹ Note that additional questions/measures were included in the survey that are not mentioned here. This section focuses only on the questions/measures that are of direct relevance to the current study.

appeared to be in the vignette by stating that: “During the search, the civilian began to struggle as if he was getting ready to flee...”, when the civilian was resistant (replicating the wording used in Yesberg et al., 2021), or “During the search, the civilian stood still with both of his hands up...”, when the civilian was nonresistant. To manipulate later disciplinary action imposed on the police officer, the vignettes either stated: “As a result of the incident, it was ultimately determined that the officer would continue working since no suspension from the police service was deemed necessary,” or “As a result of the incident, it was ultimately determined that the officer would be suspended from the police service for 30 consecutive days.” As previously mentioned, these vignette manipulations resulted in a total of four experimental conditions. Appendix F contains a list of the four full vignettes that were prepared for this study.

Belief in a Just World. Participants were asked to complete the Global Belief in a Just World Scale (GBJWS; Lipkus et al., 1996), which consists of seven items rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: “I feel that people get what they deserve” and “I feel that rewards and punishments are fairly given” (see Appendix D for full list of items). This specific BJW scale was chosen for its demonstrated high reliability and validity across gender and cultures in various studies (e.g., Hellman et al., 2008; Lipkus, 1991; Reich & Wang, 2015). In the current study, the seven items on the GBJWS were found to have high reliability ($\alpha = 0.79$). An average score across all seven items of this measure was used in the analyses to assess the relationship between BJW and acceptability judgements. Higher scores on the GBJWS are indicative of stronger endorsement of BJW.

Police Legitimacy. The Police Legitimacy Scale (PLS), developed by Tankebe et al. (2016), was also completed by participants to assess the association between police legitimacy and acceptance toward the police use of force depicted in the vignettes. The scale consists of 16

items, all rated on 7-point Likert scales in which higher scores represent greater perceptions of police legitimacy (see Appendix E for the full item list). Sample items from this scale include: “When the police deal with people, they always behave according to the law” and “The police make sure citizens receive the outcomes they deserve under the law.” Four components of police legitimacy are assessed with this scale: (1) lawfulness, (2) procedural fairness, (3) distributive fairness, and (4) police effectiveness. A reliability analysis determined the scale had a high degree of reliability in the current sample ($\alpha = 0.93$). The average score for this measure was used in the current study to assess whether perceptions of police legitimacy had an association with more acceptance toward police use of force.

Dependent/Outcome Variables

Acceptability Judgements. Following the vignette, participants were asked how acceptable they viewed the police officer’s actions to be. Two items adapted from Yesberg et al. (2021) were used for this measure. The items were modified slightly in the current study to reflect the fact that only one police officer directly used force against the civilian in the vignettes and participants were only asked to judge the acceptability of that specific officer’s use of force. These two items consisted of: “To what extent do you agree that it was acceptable/justified for the police officer to restrain the man in this way?” and “To what extent do you agree that the way the police officer behaved was wrong?” Participants responded on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Same as Yesberg et al. (2021), the second item was reverse coded so that higher values for both items indicate more accepting views toward police use of force. The reliability coefficient for this measure was low ($\alpha = .31$), particularly in comparison to what was reported in Yesberg et al. ($\alpha = 0.92$). However, this was likely the result of the small sample size in the current study in combination with the scale

consisting of only two items, which could have negatively affected the reliability coefficient. An average of the two items were computed and used for the analyses as the main outcome variable.

Civilian Blame. Blame attributions are another well recognized justice-restoring response following a threat to BJW (e.g., Modesto & Pilati, 2017; Mohiyeddini & Montada, 1998), and civilian blame was measured with four items (rated on 7-point scales ranging from *not at all* to *very much*). The items are modified from Strömwall et al. (2013) to fit the purpose of the current study. Specifically, the four included items ask: “To what extent do you: (1) believe the civilian is to blame for what happened? (2) believe what happened was the civilian’s fault? (3) believe the civilian acted inappropriately? and (4) believe the civilian is ultimately responsible for what happened?” The civilian blame measure produced a high reliability coefficient ($\alpha = .93$), and the average of the items were used in my exploratory analysis.

Procedure

Participants were recruited through SONA and asked to participate in an online study. Once participants signed up for the study, they were sent a link to access the online questionnaire (completed through Qualtrics). At the start of the questionnaire, the consent form (see Appendix B) briefly outlined the general purpose of the study and informed participants that some of the material contained in the questionnaire (i.e., the vignettes describing a police use of force scenario) may be distressing and that they could stop participating at any point without consequence should they experience any study-related distress. After providing informed consent, participants were presented with some demographic questions (see Appendix C), followed by the GBJWS (Lipkus et al., 1996; see Appendix D) and the PLS (Tankebe et al., 2016; see Appendix E). Given that I aimed to investigate whether evaluations of police use of

force may be predicted by prior beliefs and baseline perceptions of police, these measures were presented to participants *before* the vignettes that described the police use of force scenario.

Next, participants were randomly assigned to one of four vignette conditions depicting a police officer using controversial force against a citizen (see Appendix F). As previously mentioned, the vignettes varied in terms of how resistant the civilian appeared to be (resistant versus nonresistant), as well as whether disciplinary action was imposed on the police officer (suspended versus not suspended), which resulted in four distinct scenarios. Following the vignette, participants responded to questions pertaining to how acceptable they believed the officer's actions to be, their perceptions of the personal characteristics of the civilian in the vignette and how blameworthy they were, as well as how rare or infrequent they perceive the occurrence of police misconduct to be. Multiple-choice manipulation check questions were used to determine whether participants did indeed read through the vignette carefully (see Appendix G), and attention check questions were embedded throughout the questionnaire to further assess participant attention while completing the study (e.g., Respond 1 '*Strongly Disagree*' to this question). Participants who failed the manipulation and attention check questions were excluded from the final analyses.

Upon completion of the survey, participants were debriefed, thanked for their time, and granted course credit. The debriefing form provided participants with the contact information for several mental health services should they have experienced any study-induced distress (see Appendix M). The contact information for the researchers was also provided.

Results

Primary Analyses: Acceptability Judgements

A standard multiple linear regression analysis was conducted to explore variation in acceptability judgements of police use of force.² The model included the manipulated variables embedded in the use of force scenarios (i.e., civilian resistance, disciplinary action), in addition to BJW, PLS, and two control variables (ethnicity and satisfaction with prior police contact; see Table 3). I initially planned for a comparison between participants who identified as an ethnic minority versus those who did not identify as an ethnic minority, as previous literature suggests that there could be important differences between those groups. However, the sample was predominantly South Asian, followed by Caucasian, with 1 or fewer participants in some ethnic minority categories. As a result of the breakdown for ethnicity in the data, it was decided that a more informative approach would be to code the ethnicity variable so that the two dominant ethnic groups (i.e., South Asian and Caucasian) were each compared to all other ethnic groups.

Analysis Assumptions

The assumptions for a multiple linear regression were assessed prior to running and interpreting the primary analyses. A scatterplot was created to assess the assumption that the variance of the residuals was constant, indicating homoscedasticity. There were problematic (non-random) patterns in the scatterplot, even after computing a log transformation on the outcome variable. The log transformation did produce a slight reduction in heteroscedasticity, as evidenced by a more random scatter in the residual plots; however, not enough to say with

² Due to the low Cronbach's alpha for the two acceptability judgement items ($\alpha = .31$), a separate regression analysis was run using only one item from this measure in order to determine whether the findings would be replicated. The same findings were generated even when only one item was analyzed, which suggests that the low reliability coefficient did not greatly influence the results. Only the findings from the original analysis (i.e., using the average from both acceptability judgement items as the outcome variable) are included/discussed.

certainty that the assumption of homoscedasticity was met. As such, the presented results should be considered with caution because the estimates may not be as precise and trustworthy as in regression models that have satisfied this assumption to a more satisfactory degree.

The calculated Pearson correlation coefficients (see Table 2), as well as tolerance (.99) and variation inflation factor (1.46) values, did not indicate a violation of the assumption of no multicollinearity. The Normal P-Plot of the standardized residuals that was created further revealed that after the log transformation, the values of the residuals were more normally distributed, as well as independent given the calculated Durbin-Watson was between 1-3 (2.07), satisfying both assumptions. No undue influence from unusual cases was observed, as the Cook's distance values that were calculated were all below 1.

Findings

Following the assessment of the assumptions, the standard multiple linear regression analysis was run with civilian resistance, disciplinary action, BJW, and PLS as predictor variables and acceptability judgements as the outcome variable. The overall regression model was significant $F(7, 83) = .012, p = .012$, explaining approximately 12% (Adjusted $R^2 = .122$) of the variance in acceptance toward police use of force in the vignettes.

Table 3 demonstrates that only one of the manipulated independent variables, namely civilian resistance, significantly contributed to the model. Specifically, in comparison to the civilian being depicted as non-resistant during the interaction with police, the civilian being depicted as resistant was significantly associated with higher levels of acceptability of police use of force ($\beta = .277, t = 2.74, p = .007, CI .075, .468$). Whether the police officer faced disciplinary action did not have a statistically significant effect ($\beta = .023, t = .23, p = .817, CI -.173, -.218$),

which suggests that civilian resistance during the encounter was more relevant to how acceptable police use of force was judged to be.

In addition, perceptions of police legitimacy were significantly associated with variance in the outcome variable ($\beta = .297, t = 2.24, p = .027, CI .017, .284$). Namely, those who viewed the police as more legitimate were more accepting of police use of force. Contrary to the study's hypothesis, BJW was not a significant predictor of acceptance of police use of force ($\beta = .058, t = .493, p = .623, CI -.094, .155$). However, the hypothesized significant association between police legitimacy and greater acceptance of police use of force in the vignettes, in addition to how it would explain more variation in acceptability judgements in the model compared to BJW, was supported.

Regarding the control variables, for ethnicity, individuals who identified as South Asian were significantly less accepting of police use of force than both individuals who identified as Caucasian and people belonging to other ethnic groups ($\beta = -.259, t = -2.37, p = .020, CI -.467, -.041$). Compared to individuals from other ethnic groups, those identifying as Caucasian were also less accepting of police use of force ($\beta = -.031, t = -.277, CI -.330, .249$), a more critical view of police than what would be expected based on the literature (Lai & Zhao, 2010; Weitzer & Tuch, 2004); however, for individuals of South Asian descent the lack of acceptance was more pronounced. Controlling for other relevant variables, identifying as Caucasian did not significantly explain variations in acceptability judgements ($p = .783$). Whether individuals were satisfied or dissatisfied with their experiences with police also did not significantly explain variations in acceptability judgements ($p = .480$).

Table 2*Pearson Correlations for Regression Model Variables: Acceptability Judgements*

| | | AJ | resistance | discipline | BJW | PLS | Caucasia -n | Southasi -an | Satisfac -tion |
|------------------|------------|-------|------------|------------|-------|-------|----------------|-----------------|-------------------|
| Pearson | AJ | - | .261* | -.035 | .157 | .236* | .023 | -.195* | .114 |
| Correlation | resistance | .261 | - | -.076 | .018 | -.031 | .045 | -.023 | .131 |
| | discipline | -.035 | -.076 | - | .057 | -.062 | -.025 | .076 | .036 |
| | BJW | .157 | .018 | .057 | - | .526 | -.158 | .162 | .315 |
| | PLS | .236 | -.031 | -.062 | .526 | - | -.237 | .176 | .512 |
| | Caucasian | .023 | .045 | -.025 | -.158 | -.237 | - | -.402 | -.199 |
| | Southasia | -.195 | -.023 | .076 | .162 | .176 | -.402 | - | .061 |
| | n | | | | | | | | |
| Satisfacti on | .114 | .131 | .036 | .315 | .512 | -.199 | .061 | - | |

Note. BJW = Belief in a Just World, PLS = Police Legitimacy Scale, and AJ = acceptability judgements (DV); * $p < .05$

Table 3*Coefficients for Regression Analysis: Acceptability Judgements*

| Model | | Unstandardized | | Standardized | | 95% Confidence Interval for B | | | |
|-------|--------------------------|----------------|------------|--------------|--------|-------------------------------|-------------|-------------|--|
| | | B | Std. Error | Beta | t | Sig. | Lower Bound | Upper Bound | |
| 1 | (Constant) | -.084 | .262 | | -.321 | .749 | -.605 | .437 | |
| | resistance | .272 | .099 | .277 | 2.742 | .007* | .075 | .468 | |
| | discipline | .023 | .098 | .023 | .232 | .817 | -.173 | .218 | |
| | BJW | .031 | .063 | .058 | .493 | .623 | -.094 | .155 | |
| | PLS | .151 | .067 | .297 | 2.244 | .027* | .017 | .284 | |
| | <i>Control Variables</i> | | | | | | | | |
| | Caucasian | -.040 | .146 | -.031 | -.277 | .783 | -.330 | .249 | |
| | Southasian | -.254 | .107 | -.259 | -2.369 | .020* | -.467 | -.041 | |
| | Satisfaction | -.045 | .063 | -.084 | -.709 | .480 | -.169 | .080 | |
| | R^2 | | | | | .191 | | | |
| | Adj. R^2 | | | | | .122 | | | |

* $p < .05$

Perceptions of police legitimacy emerged as the strongest, positive predictor of acceptability judgements regarding police use of force ($\beta = .297, p = .027, CI .017, .284$), followed by civilian resistance during the use of force incident, which was also a strong, positive predictor when controlling for other predictors in the model ($\beta = .277, p = .007, CI .075, .468$). This suggests that irrespective of disciplinary action imposed on the police officer, just-world beliefs, ethnicity, and personal satisfaction with prior police contact, people who view the police as legitimate judged the use of force in the vignettes as more acceptable or justifiable. Furthermore, when a civilian is resistant to police authority (i.e., in this case, by struggling with the police officer during the encounter), individuals are more likely to view police use of force as less unacceptable.

Exploratory Analyses: Blame

A separate linear regression analysis was conducted to explore whether the two manipulated variables embedded in the use of force scenarios (i.e., civilian resistance and disciplinary action), as well as BJW, and PLS, influenced how blameworthy the civilian was believed to be for what transpired in the vignettes. The overall model reached statistical significance $F(4, 86) = 9.26, p < .001$, explaining approximately 26.9% (Adjusted $R^2 = .269$) of perceived blameworthiness of the civilian. The same limitations pertaining to the regression assumptions from the previous regression analysis were found for this analysis as well, which again could be caused by a lack of an adequate sample size in the current study. These results will need to be validated using a larger, more representative sample size. The only predictor variable that was found to significantly contribute to the model was civilian resistance (see Table 4). When the civilian was depicted as resistant, as opposed to non-resistant, during the police

encounter, individuals perceived the civilian as significantly more blameworthy ($\beta = .506$, $t = 5.58$, $p < .001$, $CI .948, 1.995$).

Table 4

Coefficients for Regression Analysis: Civilian Blame

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | 95% Confidence Interval for B | | |
|-------|------------|-----------------------------|------------|---------------------------|----------|-------------------------------|-------------|-------------|
| | | B | Std. Error | Beta | <i>t</i> | Sig. | Lower Bound | Upper Bound |
| 1 | (Constant) | .094 | .660 | | .142 | .887 | -1.218 | 1.405 |
| | resistance | 1.471 | .264 | .506 | 5.584 | <.001* | .948 | 1.995 |
| | discipline | .139 | .264 | .048 | .527 | .599 | -.385 | .664 |
| | BJW | .158 | .169 | .100 | .936 | .352 | -.178 | .494 |
| | PLS | .233 | .161 | .154 | 1.444 | .152 | -.088 | .553 |

* $p < .05$

Discussion

The first aim of this study was to investigate whether certain contextual factors of a police use of force incident, namely civilian resistance (versus nonresistance) and disciplinary action imposed on the police officer that used force (versus no disciplinary action imposed), depicted in text-based vignettes, influenced how acceptable the use of force was judged to be [RQ1]. My analysis revealed that disciplinary action (or lack thereof) had no significant effect on how acceptable the use of force was perceived to be. Whether the civilian was resistant during the encounter, however, did have a significant effect on participants' acceptability judgements. More specifically, I found that when the civilian was depicted as resistant in comparison to nonresistant in the vignettes, individuals were significantly more likely to reason that police use of force was slightly more acceptable. However, it is worth noting that, overall, participants did rate the police use of force depicted in the vignettes as quite unacceptable ($M_{AJ} = 1.93$ (out of 7) for acceptability; $SD = 1.01$).

In addition, not only did participants view the police officer's use of force less disapprovingly when the civilian was depicted as resistant as opposed to nonresistant, but my exploratory analysis indicated that they also viewed the resistant civilian as significantly more blameworthy for the application of force depicted in the vignette as well. It could be that when the civilian is resistant, individuals are more easily able to justify or understand the preceding application of force by a police officer. Similar to acceptability judgements, it is worth noting that, overall, the participants did not rate the civilian as overly blameworthy for the use of force that was applied by the police officer ($M_{\text{blame}} = 2.48$ (out of 7); $SD = 1.45$).

These findings lend some support to literature pertaining broadly to use of force decision-making and the justifiability of police use of force, which suggests that concern over the proper use of force is most pronounced when the level of force applied is incongruent with the level of resistance that a civilian posed (Alpert et al., 2001; Terrill et al., 2003). Taken together, from both legal and policy perspectives, as well as layperson perspectives, a slight legitimizing effect of the degree of civilian resistance on police use of force is apparent. In other words, civilian resistance is a seemingly important aspect of what makes force less unacceptable. Had my vignettes depicted use of force scenarios that were more distinct in terms of "reasonable" versus "unreasonable" applications of force, I may have observed more of a variation in acceptability judgements and could more confidently consider this finding in relation to other research.

The second aim of this study was to assess whether prior attitudes and beliefs shaped how acceptable police use of force was viewed [RQ2]. It was found that only perceptions of police legitimacy were associated with more accepting views toward police use of force depicted in the vignettes. In other words, individuals who expressed beliefs that police officers generally act in ways that are normatively appropriate, just, and impartial, and demonstrate a high quality of

treatment to civilians they serve, were more likely to evaluate police use of force as more acceptable. These findings not only complement previous research demonstrating the important relationship between trust in police and individuals' acceptance of police use of force (Kyprianides et al., 2020; Gerber & Jackson, 2017; Yesberg et al., 2021), but also extends it by showing that the perceived legitimacy of police (in which trust in police is a component of their legitimacy) is also important for garnering acceptance of police use of force (Celestin & Kruschke, 2018).

One interpretation of this finding I propose is that when people believe that police are, for the most part, legitimate, they may be quicker to reason that police behaviour in any given situation is more justifiable than not. As such, their evaluations of police action may represent a less questioning stance to police authority based on a strong sense of trust in the capabilities of police to decide what constitutes normatively appropriate behaviour during encounters, including when and how police choose to use force against civilians like in the vignettes. Similar interpretations have been proposed in other research that has also looked at how individuals process and judge the appropriateness of police use of force in various contexts (e.g., Yesberg et al., 2021). However, because the differences among acceptability judgements were slight and most participants still viewed the application of force in the vignettes disapprovingly, an alternative, possibly more suitable, interpretation is that this effect did not show as strongly in this thesis because the force depicted in the vignettes was clearly unwarranted and exceeding the bounds of police authority (e.g., Bradford et al., 2017; Milani, 2020). This could be investigated further in future research using a larger, more diverse sample.

No effect of BJW on acceptability judgements was found, which suggests that just world beliefs may not be as relevant in the context of police-civilian encounters. Other system-

justifying belief systems, like authoritarian orientations, may instead be more relevant in these contexts (Gerber & Jackson, 2017; Milani, 2020). It may also be that the vignettes I presented did not pose a significant enough threat to BJW for it to influence acceptability judgements toward the use of force depicted. Regardless, these findings are in contrast with other research that has demonstrated an influence of BJW on support for excessive use of force (e.g., Milani, 2020).

Limitations and Future Research Directions

It is important to note that the results of the current study, although interesting, are limited in several ways. For one, my analyses determined that there were some minor violations of the regression assumptions. In particular, there were problematic (non-random) patterns in the scatterplot for both outcome variables (i.e., acceptability judgement and victim blame). The log transformation I performed, however, did help to reduce heteroscedasticity, as evidenced by a more random scatter in the residual plots. That said, the assumption of homoscedasticity was still violated (but to a lesser degree). No violations of the assumption of multicollinearity, normally distributed residuals, or undue influence from unusual cases were observed, as indicated by satisfactory VIF values, Normal P-Plot distributions, and Cook's values.

The violation of some regression analysis assumptions could potentially have been the result of an inadequate sample size for my analyses, which is my next noted limitation of the current study. In addition to this, the sample used also lacked representativeness given that the majority of the sample identified as predominantly female and South Asian. As well, participants were drawn from undergraduate classes at one specific university, which limits the representativeness of the sample. A larger, more diverse sample is needed to generalize these findings to a broader population, which could be achieved in future research.

Finally, the fictitious vignette scenarios used in this research are not entirely comparable to real police use of force incidents that one may observe in person or through a video posted online, for example, and therefore may not capture the full essence of real police use of force encounters and authentic reactions to police use of force. Future research on this topic would benefit from investigating perceptions of police use of force using other methodologies, such as complementing vignettes with real videos of police use of force encounters to measure perceptions as some researchers have opted for (e.g., Yesberg et al., 2021).

Conclusion

These findings highlight the importance of civilian resistance in shaping judgements about police use of force. It seems that when observers acknowledge a civilian is resistant to police authority, even in vignettes that were specifically developed to show controversial police use of force against a civilian, there is an increased justification of the application of force that follows. Although participants in this study rated the police officer's use of force in the vignettes as quite low in acceptability overall, participants were significantly less disapproving of the use of force when the civilian was depicted as resistant.

In addition, participants rated the civilian as more to blame for the force applied by the officer when they were depicted as resistant. Thus, civilian resistance remains a central factor individuals tend to consider when judging whether police use of force is acceptable. Future research that examines perceptions of various levels of use of force would benefit from factoring in varying degrees of civilian resistance to better understand the contexts in which use of force is applied and experienced by the public.

Police legitimacy was also found to play a role in shaping judgements toward police use of force in the presented vignettes. This suggests that attitudes and beliefs that individuals hold

prior to observing police use of force encounters do influence how such encounters are experienced and perceived. However, given that the differences among acceptability judgements were only found to be slight, this thesis also supports findings that show that force that is clearly unwarranted and exceeding the bounds of police authority may not show this effect as strongly (e.g., Bradford et al., 2017; Milani, 2020).

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Appendix A: REB Approval

Date: June 06, 2022
To: Karla Emeno
From: Ginny Brunton, Interim REB Chair
File # & Title: 16835 – Beliefs about Police
Status: **APPROVED WITH CONDITIONS**

Review Type: *Delegated Review*

Current June 01, 2023
Expiry:

Notwithstanding this approval, you are required to obtain/submit, to Ontario Tech's Research Ethics Board, any relevant approvals/permissions required, prior to commencement of this project.

The Ontario Tech Research Ethics Board (REB) has reviewed and approved **with conditions** the research study name above to ensure compliance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2 2018), the Ontario Tech Research Ethics Policy and Procedures, and associated regulations. As the Principal Investigator (PI), you are required to adhere to the research protocol described in the REB application as last reviewed and approved by the REB. In addition, you are responsible for obtaining any further approvals that might be required to complete your project.

**To receive complete REB approval, the conditions below require a response:
Please submit clean copies for appendix 1 and 2 (consent forms); we need finalized copies without track changes.**

To submit additional documentation, follow these steps:

1. Access the IRIS research portal using either the [Ontario Tech Faculty Login Page](#) or the [Student & External Researcher Login Page](#).
2. Click the 'Applications: Post-Review' link from the IRIS home page. Click the 'Events' button for this project.
3. Select the 'Additional Documentation for REB' form.
4. Complete the form and attach the documentation, then submit using the 'Submit' button.

Under the Tri-Council Policy Statement 2, the PI is responsible for complying with the continuing research ethics reviews requirements listed below.

Renewal Request Form: All approved projects are subject to an annual renewal process. Projects must be renewed or closed by the expiry date indicated above (“Current Expiry”). Projects not renewed 30 days post expiry date will be automatically suspended by the REB; projects not renewed 60 days post expiry date will be automatically closed by the REB. Once your file has been formally closed, a new submission will be required to open a new file.

Change Request Form: If the research plan, methods, and/or recruitment methods should change, please submit a change request application to the REB for review and approval prior to implementing the changes.

Adverse or Unexpected Events Form: Events must be reported to the REB within 72 hours after the

event occurred with an indication of how these events affect (in the view of the Principal Investigator) the safety of the participants and the continuation of the protocol (i.e. un-anticipated or un-mitigated physical, social or psychological harm to a participant).

Research Project Completion Form: This form must be completed when the research study is concluded.

Always quote your REB file number 16835 on future correspondence. We wish you success with your study.

Sincerely,

Ginny Brunton, PhD
Interim REB Chair

Ginny.Brunton@ontariotechu.ca

Fabiola Limon Bravo, MA
Research Ethics Coordinator

researchethics@ontariotechu.ca

Appendix B: Student Consent Form

Consent Form to Participate in a Research Study

Title of Research Study: Beliefs about Police

Principal Investigator (PI): Karla Emeno, PhD

PI's Contact Email: Karla.Emeno@ontariotechu.ca

Researcher: Alexandra Grave

Researcher Contact Email: Alexandra.Grave@ontariotechu.ca

Departmental and institutional affiliation: Faculty of Social Sciences and Humanities, Ontario Tech University

Introduction:

You are invited to participate in a research study entitled “Beliefs about Police.” You are being asked to take part in a research study. Please read the information about the study presented in this form. The form includes details on study’s procedures, risks, and benefits that you should know before you decide if you would like to take part. You should take as much time as you need to make your decision. You should ask the Principal Investigator (PI) or study team to explain anything that you do not understand and make sure that all of your questions have been answered before signing this consent form. Before you make your decision, feel free to talk about this study with anyone you wish including your friends and family. Participation in this study is voluntary.

This study has been reviewed by the University of Ontario Institute of Technology (Ontario Tech University) Research Ethics Board (REB #16835) on June 6th, 2022.

Purpose and Procedure:

You have been invited to participate in this study because the researchers are interested in investigating personal beliefs and general opinions about police. If you consent to participate in this study, you will first be asked to complete a demographics questionnaire (e.g., questions about your age, gender, ethnicity, etc.). You will then read through a short description of an interaction between two police officers and a civilian. Next, you will answer some questions pertaining to your perceptions of the incident and the individuals involved. You will also complete some individual difference/personality measures. The study will take approximately 15 minutes to complete.

Potential Benefits:

Your participation in this study will contribute to new knowledge and facts relevant to many fields, including but not limited to psychology. Furthermore, the results of this study will be used to inform future research and potentially law enforcement on bettering police-community relations.

Potential Risks or Discomfort:

This study involves no more than minimal risks. The vignette scenario you will read involves an encounter between a police officer and a civilian that may be mildly distressing for some people to read. If you anticipate that such material may cause you distress or anxiety, you may choose not to participate. If you do decide to participate but feel discomfort or anxiety at any point during the study, you can skip any questions that you do not wish to answer, or withdraw from the study altogether, without any negative consequences. After you complete the study, you will be debriefed and resources will be provided to you in the case that you feel distress or anxiety because of your participation.

Use and Storage of Data:

Basic demographic information and responses to all other questions will be collected via Qualtrics' online survey platform. No information will be stored that will make it possible to identify you through your answers. You will not be required to provide your name at any point during the survey. Instead, your responses to the survey will only be identifiable by a random participant number, which cannot be linked to your name. Data collected via this survey will be securely stored on password-protected computers. Only the research team will have access to the data. The data will be used for teaching and research purposes, but it will only be presented in aggregate/group form (i.e., individual data will never be used/identified). The anonymized aggregated/grouped data may be shared with other researchers as required by the ethics and publication guidelines of psychology. Data will be kept indefinitely to potentially allow for additional statistical analyses and in accordance with the practices of open and transparent science. All information collected during this study, including your personal information, will be kept confidential and will not be shared with anyone outside the study unless required by law. You will not be named in any reports, publications, or presentations that may come from this study.

Confidentiality:

Your privacy shall be respected. Access to Qualtrics' database is highly restricted, and their servers are located in secure, environmentally controlled data centers in Ireland which are monitored 24/7. Data stored on Qualtrics' servers is subject to the privacy laws in their jurisdiction (<https://www.qualtrics.com/support/survey-platform/getting-started/data-protection-privacy/>). Any information obtained is protected by multiple levels of security, as indicated by industry standard firewalls, IT security policies and procedures, DDOS protection, confidentiality agreements, and other physical, electronic, and managerial procedures. No information about your identity will be identified or identifiable, as only aggregate data will be presented in any written reports or publications. Confidentiality will be provided to the fullest extent possible by law, professional practice, and ethical codes of conduct. This research study includes the collection of demographic data which will be aggregated (not individually presented) to protect your anonymity. Despite best efforts it is possible that your identity can be determined even when data is aggregated.

Right to Withdraw:

Your participation is voluntary, and you can answer only those questions that you are comfortable with answering. The information that you share with us will be held in strict confidence and discussed only with the research team.

If you do not wish your data to be a part of this study, you must make that decision now, before you start, and choose to not participate. After you begin, the study is anonymized, which means there is no way for us to determine which responses in the resulting dataset are yours to delete them. If you choose to exit the study by closing the browser window, severely incomplete data will not be analyzed, but all survey data—even incomplete responses—will be stored on Qualtrics' servers (located in secure, environmentally controlled data centers with 24/7 monitoring), and mostly complete surveys may still be analyzed. Thus, the only way to ensure that your responses are not included in this research is to choose to not participate.

Conflict of Interest:

Researchers have an interest in completing this study. Their interests should not influence your decision to participate in this study.

Compensation:

In exchange for completing our study, you will receive 0.5% toward your psychology course. Participants who wish to withdraw from the study for any reason will still receive course credit.

Debriefing and Dissemination of Results:

You may contact the researchers using the above contact information if you are interested in learning the results of this study or have questions. The data from this study may be presented in aggregate/group form through posters, presentations, or manuscripts.

Participant Rights and Concerns:

Please read this consent form carefully and feel free to ask the researcher any questions that you might have about the study. If you have any questions about your rights as a participant in this study, complaints, or adverse events, please contact the Research Ethics Office at (905) 721-8668 ext. 3693 or at researchethics@ontariotechu.ca. If you have any questions concerning the research study or experience any discomfort related to the study, please contact the researcher Alexandra Grave at Alexandra.Grave@ontariotechu.ca. By signing this form, you do not give up any of your legal rights against the investigators, sponsor or involved institutions for compensation, nor does this form relieve the investigators, sponsor or involved institutions of their legal and professional responsibilities.

Consent to Participate:

I freely consent to participate in this study, and I have made this decision based on the information I have received about it. I have read and understand the consent form and I accept its stipulations. I also understand that by agreeing to this consent form I do not waive any of my legal rights or recourse.

By clicking the button below to proceed to the study, I agree to participate in this study.

I agree

Secondary Use of Research for Future Research Purposes:

By signing my initial below, I consent to my anonymized data possibly being analyzed in the future for additional research (e.g., secondary data analysis, meta-analyses), and agree with the following statements:

1. I understand the possible need for secondary research uses of my research data for future research use and provide consent for the use of my data to be used in future studies.
2. The research team has informed me that a separate REB application will be submitted for the secondary use of data for any future research purposes.

_____ Yes _____No

Appendix C: Demographics (Student Sample)

Please answer the following questions about yourself. Keep in mind that all answers remain anonymous. Should any question make you feel uncomfortable, feel free to skip it.

1. What is your age (in years)?

2. What gender do you identify with?

Male

Female

Non-binary

Other (please specify): _____

3. Please indicate your faculty.

Faculty of Business and Information Technology

Faculty of Education

Faculty of Engineering and Applied Science

Faculty of Energy Systems and Nuclear Science

Faculty of Health Sciences

Faculty of Science

Faculty of Social Science and Humanities

4. Year in program:

1

2

3

4

5+

5. Do you consider yourself to belong to any ethnic minority group(s)?

Yes

No

6. What is your ethnicity? (Mark all that apply)

Arab

Caribbean

Caucasian/North American

Central Asian

European

East Asian (e.g., Chinese, North or South Korean, Japanese)

Indigenous (e.g., First Nations, Inuk, Metis)

Latin American

North African

South Asian (e.g., East Indian, Pakistani, Sri Lankan)

Southeast Asian (e.g., Vietnamese, Filipinos, Thai, Laotian, Cambodian)

Subsaharan African

Other (please specify): _____

7. Which political party do you most identify with?

Bloc Quebecois

Conservative

Green Party

Liberal

New Democratic Party (NDP)

None

Other (please specify): _____

8. Where do you currently live?

Campus Residence

Off-Campus Residence

At home

Other: _____

9. Have you lived in Canada all your life?

Yes

No

10. If not, how many years have you lived in Canada?

11. What is your employment status?

Full-time

Part-time

Unemployed

Student

12. Have you ever worked in law enforcement (e.g., police officer)?

Yes

No

13. Are you an immediate family member (i.e., parent, spouse/partner, sibling, child) of a law enforcement worker (e.g., police officer)?

Yes

No

14. Have you ever been in direct, personal contact with the police (e.g., stopped for speeding, searched, arrested, etc.)?

Yes

No

15. In the past five years, how many times have you been in direct, personal contact with the police (e.g., stopped for speeding, searched, arrested, etc.)? Please indicate a specific value in the space below. If the answer is “None”, then write ‘0’.

16. How satisfied are you overall with your experience(s) with the police? If you have no experience being in direct, personal contact with the police, respond with how satisfied you are overall with the interactions between police and members of your community that you know of.

Very Unsatisfied

Unsatisfied

Neutral

Satisfied

Very Satisfied

Appendix D: Global Belief in a Just World Scale (GBJWS)

[Note: Items were answered on a 7-point scale ranging from *strongly disagree* to *strongly agree*]

Please read each statement carefully and decide to what extent you personally agree or disagree with each item.

- (1) I feel that most people get what they are entitled to have.
- (2) I feel that a person's efforts are noticed and rewarded.
- (3) I feel that people earn the rewards and punishments they get.
- (4) I feel that people who meet with misfortune have brought it on themselves.
- (5) I feel that people get what they deserve.
- (6) I feel that rewards and punishments are fairly given.
- (7) I basically feel that the world is a fair place.

Appendix E: Police Legitimacy Scale

[Note to REB: Items were answered on a 7-point scale ranging from *strongly disagree* to *strongly agree*. An attention check question was embedded in this scale in the final questionnaire (i.e., “Please choose strongly disagree to this question”)]

Please rate your level of agreement with the statements below:

1. When the police deal with people, they always behave according to the law. _____
2. If I were to talk to police officers in my community, I would find their values to be very similar to my own. _____
3. The police act in ways that are consistent with my own moral values. _____
4. The police treat citizens with respect. _____
5. The police take time to listen to people. _____
6. The police treat people fairly. _____
7. The police respect citizens’ rights. _____
8. The police are courteous to citizens they come into contact with. _____
9. The police treat everyone with dignity. _____
10. The police make decisions based on the facts. _____
11. The police provide the same quality of service to all citizens. _____
12. The police enforce the law consistently when dealing with people. _____
13. The police make sure citizens receive the outcomes they deserve under the law. _____
14. Crime levels in my neighbourhood have changed for the better in the last year. _____
15. There are not many instances of crime in my neighbourhood. _____
16. I feel safe walking in my neighbourhood. _____

To what extent are your views expressed above a result of exposure to the police through:

1. The media (television coverage, newspaper, radio, etc.):



2. Direct personal experience with the police:



3. Hearing about how others have been treated by the police:



Appendix F: Use of Force Vignettes

1. **Resistant Civilian, Disciplinary Action (i.e., officer suspended):** Officers were out on patrol in Toronto when they noticed what they thought was a suspicious civilian walking down the street. He fit the description of a suspect accused of using counterfeit money at a nearby convenience store and he appeared to walk faster when he noticed the officers' presence. The civilian was stopped by the officers to be searched. During the search, the civilian began to struggle as if he was getting ready to flee, at which point one of the officers tackled him to the ground while the other officer searched his wallet. While the civilian was under control, the officer that tackled him to the ground punched him in the stomach several times. The civilian subsequently complained of rib pain and was taken to the hospital to be assessed for injuries.

Considering the alleged injuries the civilian sustained during the incident, a formal investigation involving the officer that tackled and punched the civilian followed. As a result of the incident, it was ultimately determined that the officer would be suspended from the police service for 30 consecutive days.

[Word count: 183]

2. **Nonresistant Civilian, No Disciplinary Action (i.e., officer continues working):** Officers were out on patrol in Toronto when they noticed what they thought was a suspicious civilian walking down the street. He fit the description of a suspect accused of using counterfeit money at a nearby convenience store and he appeared to walk faster when he noticed the officers' presence. The civilian was stopped by the officers to be searched. During the search, the civilian stood still with both of his hands up, at which point one of the officers tackled him to the ground while the other officer searched his wallet. While the civilian was under control, the officer that tackled him to the ground punched him in the stomach several times. The civilian subsequently complained of rib pain and was taken to the hospital to be assessed for injuries.

Considering the alleged injuries the civilian sustained during the incident, a formal investigation involving the officer that tackled and punched the civilian followed. As a result of the incident, it was ultimately determined that the officer would continue working since no suspension from the police service was deemed necessary.

[Word count: 178]

3. **Nonresistant Civilian, Disciplinary Action (i.e., officer suspended with pay):** Officers were out on patrol in Toronto when they noticed what they thought was a suspicious civilian walking down the street. He fit the description of a suspect accused of using counterfeit money at a nearby convenience store and he appeared to walk faster when he noticed the officers' presence. The civilian was stopped by the officers to be searched. During the search, the civilian stood still with both of his hands up, at which point one of the officers tackled him to the ground while the other officer searched his wallet. While the civilian was under control, the officer that tackled him to the ground punched him in the stomach several times. The civilian subsequently complained of rib pain and was taken to the hospital to be assessed for injuries.

Considering the alleged injuries the civilian sustained during the incident, a formal investigation involving the officer that tackled and punched the civilian followed. As a result of the incident, it was ultimately determined that the officer would be suspended from the police service for 30 consecutive days.

[Word count: 180]

4. Resistant Civilian, No Disciplinary Action (i.e., officer continues working): Officers were out on patrol in Toronto when they noticed what they thought was a suspicious civilian walking down the street. He fit the description of a suspect accused of using counterfeit money at a nearby convenience store and he appeared to walk faster when he noticed the officers' presence. The civilian was stopped by the officers to be searched. During the search, the civilian began to struggle as if he was getting ready to flee, at which point one of the officers tackled him to the ground while the other officer searched his wallet. While the civilian was under control, the officer that tackled him to the ground punched him in the stomach several times. The civilian subsequently complained of rib pain and was taken to the hospital to be assessed for injuries.

Considering the alleged injuries the civilian sustained during the incident, a formal investigation involving the officer that tackled and punched the civilian followed. As a result of the incident, it was ultimately determined that the officer would continue working since no suspension from the police service was deemed necessary.

[Word count: 181]

Appendix G: Manipulation Check Questions

Please answer the following questions about the incident you read.

1. What did the civilian do while being searched by the officer?
 1. He cursed at the officers
 2. He began to struggle as if about to flee
 3. He punched the officer
 4. He stood still with his hands up

[Note: Correct answers to this question depend on the vignette presented. In vignettes that depict the civilian as resistant, the correct response to this question is B (i.e., he began to struggle as if about to flee). In vignettes that depict the civilian as nonresistant, the correct response to this question is D (i.e., he stood still with his hands up)].

2. What happened to the officer that tackled and punched the civilian?
 - A) He was suspended
 - B) He received an award for his bravery
 - C) He continued working and was not suspended
 - D) He quit his job

[Note: In vignettes that depict the police officer as having received disciplinary action following an investigation, the correct response to this question is A (i.e., he was suspended). In vignettes that depict the police officer as not having received disciplinary action, the correct response to this question is C (i.e., he continued working and was not suspended)].

Appendix H: Acceptability Judgements

[Note: These items are modified items from Yesberg et al. 2021 and were rated on a 7-point Likert scale from *strongly disagree* to *strongly agree*]

Please indicate your level of agreement with the following questions:

1. To what extent do you agree that it was acceptable/justified for the police officer to restrain the man in this way?
2. To what extent do you agree that the way the police officer behaved was wrong? (**R**)

[**R** = reverse scored]

Appendix I: Derogation Items

[Note: These derogation items were adapted from Correia and Vala (2003) and were answered on a 7-point Likert scale ranging from *not at all* to *very much*].

We would like to know more about your opinions of the civilian and police officers involved in the incident you read about. Please answer the following questions as truthfully as possible (there are no right or wrong answers, we are only asking for your opinion).

Rate the extent to which each of the following characteristics describe the **civilian**:

Stupid

Selfish

Nervous

Unconscientious

Deceitful

Rate the extent to which each of the following characteristics describe the **police officer** that directly used force against the civilian:

Stupid

Selfish

Nervous

Unconscientious

Deceitful

Appendix J: Blame Items

[Note: These items were adapted from Strömwall et al. (2013) and were answered on a 7-point Likert scale ranging from *not at all* to *very much*]

Please answer the following questions about the **civilian** involved in incident:

1. To what extent do you believe the civilian is to blame for what happened?
2. To what extent do you believe what happened was the civilian's fault?
3. To what extent do you believe the civilian acted inappropriately?
4. To what extent do you believe the civilian is ultimately responsible for what happened?

Is there anything the civilian could have done differently to prevent what happened to him and/or the police officer? Specify in the space below.

Please answer the following questions about the **police officer** that directly used force against the civilian:

1. To what extent do you believe the police officer is to blame for what happened?
2. To what extent do you believe what happened was the police officer's fault?
3. To what extent do you believe the police officer acted inappropriately?
4. To what extent do you believe the police officer is ultimately responsible for what happened?

Is there anything the police officer could have done differently to prevent what happened to him and/or the civilian? Specify in the space below.

Appendix K: Perceived Rarity of Police Misconduct

[Note: These items were exploratory and rated on a 7-point Likert scale from *never* to *very frequently*].

1. How often do you think physical police-citizen encounters occur in everyday life?
2. How often do you think police officers use unnecessary force in their interactions with individuals in their community?

[Note: These specific items will be rated on a 7-point Likert scale from *strongly disagree* to *strongly agree*].

3. Incidents of police misconduct are usually the result of a few bad police officers, or ‘bad apples’
4. All police officers usually commit some form of misconduct during their career (**R**)

[**R** = reverse scored]

Appendix L: Justice-Restoring Items

[Note: These items were answered on a 7-point Likert scale from *not at all important* to *extremely important*]

Out of the following outcomes, how important is each one to making the incident you read about more just or moral?

Financial compensation for any suffering or injuries the civilian experienced because of the incident

Harsher penalties imposed on the involved police officers

Penalties imposed on the civilian (e.g., fines, period of imprisonment)

Formal apology from the involved police officers to the civilian

Formal apology from the police department to the civilian

Increased police funding allocated to officer use of force training

Are there any other outcomes that would have made the incident you read about more just or moral? If yes, what are those outcomes?

Appendix M: Debrief Form

Name and Contact Information of Researchers: Alexandra Grave

Tel.: (647) 949-2609

Email: Alexandra.Grave@ontariotechu.ca

Supervisor and Contact Information: Karla Emeno (Karla.Emeno@ontariotechu.ca)

Research Study Name: Beliefs about Police

Thank you for taking part in our study! Your participation is greatly appreciated.

Purpose of the Study:

The goal of our research is to explore how personal beliefs and attitudes toward police interact and influence perceptions of police-civilian interactions. As depicted in the scenario you read, this study was specifically interested in a police use of force incident. We would like to remind you that your information will remain confidential and submitted responses cannot be deleted (due to the anonymous nature of the data collected).

Contact Information:

We recognize that the content you read in the presented scenario, as well as some questions you responded to during the survey, may have triggered an emotional reaction. If you experience any distress or anxiety after having participated in this study, please feel free to contact a 24-hour telephone help line, such as Telehealth Ontario at 1-866-797-0000 (toll free) and Good2Talk (1-866-925-5454). Good2Talk is a free, confidential, and anonymous helpline providing professional counselling, information and referrals for mental health and wellbeing to post-secondary students in Ontario, 24/7/365. They provide support via phone or text message.

If you have any remaining concerns, questions, or comments about this study, please contact the researchers at Alexandra.Grave@ontariotechu.ca or Karla.Emeno@ontariotechu.ca.

If you have any questions concerning your rights as a research subject, complaints, or adverse events, please contact the Ontario Tech University Research Ethics Board at researchethics@ontariotechu.ca or 905-721-8668 ext. 3693.

This study has been reviewed by the Ontario Tech University Research Ethics Board (REB #13730 on June 6th, 2022).

Thank you for taking the time to participate in this study!