Toward Assessing and Improving the Protective Efficacy of Canadians' Interrogation Rights: Misinformation and Caution Comprehension

by

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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.

ABSTRACT

The right to silence and right to counsel serve to protect detainees facing the power imbalance of police interrogation. Unfortunately, research indicates people are misinformed about their rights and struggle to comprehend the police cautions which explain them. This reduces the protective efficacy of rights in practice. Three inter-related studies sought to address these issues within a Canadian-specific context.

First, Canadians' (N = 212) interrogation rights knowledge was assessed through open-ended, vignette, and true/false measures. Many Canadians (72-95%) were misinformed about important aspects, and limitations, of their interrogation rights.

Next, to improve knowledge and increase caution comprehension, a widely used Canadian police caution (RCMP) was modified to create a 1) "Simplified" caution with reworked wording, structure, and added explanations, and 2) an "Informative" (simplified) caution, with added content about rights limitations. Cautions were assessed for readability and complexity, then tested in a 4-condition low-stakes online experiment with Canadians (N = 200) using measures from Study 1. Despite most Canadians self-reporting caution comprehension (94-98%), and Informational condition participants demonstrating higher average scores, comprehension was low overall and group differences were not significant. However, average correct knowledge scores and key rights limitation scores were significantly higher for the Informative caution participants compared to those in the RCMP or no caution conditions.

Finally, to increase test validity of the modified cautions, Ontario Tech undergraduates (N = 90) participated in a 3-condition higher-stakes mock-interrogation, guised as a "convincing alibi" study. Students prepared an alibi, heard 1 of 3 cautions,

provided their alibi under mild duress, and completed Study 2 measures. Results mirrored Study 2: all students self-reported caution understanding, but comprehension scores were low overall. Students hearing the Informative caution demonstrated higher average correct rights knowledge, followed by the Simplified, then RCMP caution, however, differences were only significant for the right to counsel.

This research indicates that - although Canadians are misinformed about their interrogation rights - knowledge of rights can be improved by altering the wording and structure of, and adding critical information to, Canadian police cautions. Through improving knowledge and comprehension, we can enhance the protective efficacy of interrogation rights for Canadians.

Keywords: right to counsel; right to silence; police cautions; comprehension; interrogations.

AUTHOR'S DECLARATION

I hereby declare that this thesis consists of original work of which I have authored. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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_____ CHRISTINA J. CONNORS

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.

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LIST OF ABBREVIATIONS AND SYMBOLS

SCC	Supreme Court of Canada
Charter	Canadian Charter of Rights and Freedoms
RTC	Right to counsel
RTS	Right to Silence
RCMP	Royal Canadian Mounted Police
EDA	Electrodermal Activity

INTRODUCTION

Upon arrest or detention, Canadian citizens who face police interrogation are afforded both the right to counsel (i.e., to speak to a lawyer) and right to silence (i.e., freedom to not answer police questions) as per the *Canadian Charter of Rights and Freedoms* (1982). These two rights are designed to act as a procedural safeguard against false, or inadmissible, confessions by mitigating the imbalance of power experienced by detainees during police interrogations (Davis, Fitzsimmons, & Moore, 2011; Moore & Gagnier 2008). According to case law, Canadians are considered to be detained by police if they are a) physically restrained for a varying duration of time other than arrest or b) psychologically restrained, whereby compliance becomes involuntary during an investigation (*R. v. Grant*, 2009; *R. v. Mann*, 2004; *R. v. Therens*, 1985). When Canadians are under arrest, they are formally charged with a crime.

Generally, detainees around the world who face police interrogation are informed about their rights (e.g., silence and counsel) verbally by police via the recitation of a 'caution' prior to any interrogative questioning (Eastwood & Snook, 2010; The Law Library of Congress, 2016; Moore & Gagnier, 2008). It is imperative that both the rights to counsel and silence are clearly understood, as miscomprehensions may lower the ability of these rights to serve as protective safeguards for detainees. One concern with caution miscomprehension is improper waivers of rights (Rogers et al., 2013). When a detainee waives their rights, they are choosing to answer police questions after, or even without, consulting with counsel.

In the U.S., the courts have established that individuals may only waive their rights if it is done so knowingly, intelligently, and voluntarily (i.e., a suspect must hold an

accurate understanding of what their rights entail and appreciate the consequences of waiving those rights, and not be pressured or coerced by police; Grisso et al., 2003; *Miranda v. Arizona* 1966). Similarly, the Canadian courts have recognized this issue, and have determined that a detainee can only completely waive their rights if 1) they have a full understanding of their rights, and hold a 2) true appreciation of the consequences of giving them up (*Clarkson v. The Queen*, 1986; *Korponay v. Attorney General of Canada*, 1982; *R. v. Evans*, 1991; *R. v. Kennedy*, 1995).

If detainees are unable to knowingly exercise their rights, they may improperly waive them, and this can leave suspects in a particularly vulnerable position during police interrogation. Thus, two key components can influence a detainee's full understanding of rights and impact decisions to waive or invoke rights before an interrogation even begins. These components include 1) comprehension of police cautions/warnings that inform detainees of rights, and 2) accurate knowledge about rights.

Right to Counsel in Canada

In Canada, interrogation rights are outlined in various parts of the Canadian Charter of Rights and Freedoms (1982; henceforth referred to as "the Charter"). The right to counsel is outlined in Section 10 of the Charter, which specifies that, upon arrest or detention, an individual in Canada has the following rights: "(a) to be informed promptly of the reasons therefor; (b) to retain and instruct counsel without delay and to be informed of that right; and (c) to have the validity of the detention determined by way of *habea corpus* and to be released if the detention is not lawful" (Canadian Charter of Rights and Freedoms, 1982, p. 3).

What "the right to retain and instruct legal counsel" specifically encompasses is not further explained in the Charter. However, the Supreme Court of Canada (henceforth referred to as "the SCC") has provided more insight about what the right to counsel encompasses – including privileges and limitations – through common law case rulings. In 2009, the SCC determined that as soon as an individual becomes detained under police investigation, they must be immediately informed of their right to counsel (*R. v. Suberu*, 2009). This immediacy of cautioning a detainee about their right to counsel can only be trumped in circumstances where a police officer is fearful for either their personal, or public, safety (*R. v. Mian*, 2014; *R. v. Suberu*, 2009).

Concerning the information police are required to provide a detainee about the right to counsel, the SCC has mandated that cautions must include four key pieces of information (*R v. Bartle*, 1994; *R v. Brydges*, 1990; *R. v. Feeney*, 1997; *R. v. Harper*, 1994; *R. v. Pozniak*, 1994). Specifically, detainees must:

1) be informed of that they have an immediate right to retain and instruct counsel without delay,
2) be provided information about their right to access to immediate free legal advice from a Legal Aid lawyer ("duty counsel"),
3) be given a phone number or basic information about how to access this free preliminary legal advice, and
4) be given information about their right to free Legal Aid in subsequent court proceedings if they meet the financial criteria requirements.

In three additional criminal case rulings, the SCC has gone further to detail some of the limitations regarding what the right to counsel specifically entails (*R. v.*

McCrimmon, 2010; *R. v. Sinclair*, 2010; *R. v. Willier*, 2010). In *R v. Sinclair* (2010), the defendant was allowed two brief 3-minute phone calls to his lawyer before police interrogated him for 5 hours. During the interrogation, Sinclair stated that he did not want to speak to investigators unless he had a lawyer present. Investigators did not allow him to have his lawyer present or to call his lawyer again. Eventually, while being questioned, Sinclair made incriminating statements. He was subsequently charged and convicted. Sinclair appealed his conviction on the grounds that police did not allow him to have a second consultation with his lawyer or have a lawyer present during interrogation. The SCC ruled against Sinclair's appeal, finding that he had satisfactorily exercised his right to counsel with the two brief phone calls. This ruling determined that Canadians do not have the right to have a lawyer present during questioning, and, after an initial satisfactory consultation, do not have the right to speak to a lawyer again[1] (*R. v. Sinclair*, 2010).

In *R. v. Willier* (2010), the defendant exercised his right to counsel, but was unable to speak to his specific lawyer. Under interrogation, Willier made incriminating statements to investigators. After being charged and convicted, Willier made an appeal on the grounds that he was unable to speak to his choice of lawyer. His appeal was denied by the SCC on the basis that his Section 10(b) rights were not violated; he had satisfactorily exercised the right to counsel – which does not guarantee that a detainee will consult with a lawyer of their choice (*R. v. Willier*, 2010).

[1] In *Sinclair* (2010), the Supreme Court of Canada stated that certain changes to a detainees circumstances (e.g., being charged with a new or more serious crime, or being asked to participate in a police procedure such as a polygraph or lineup) would warrant a renewal of rights.

The third SCC ruling, *R. v. McCrimmon* (2010), is similar to both *Sinclair* and *Willier*. McCrimmon was unable to speak to the counsel of his choosing but exercised his right to counsel by consulting with a free legal aid lawyer. Under interrogation, McCrimmon requested to have a lawyer present, and to consult with legal counsel again. He was denied opportunities. McCrimmon eventually confessed during the continued hours of the interrogation. His attempts to appeal his conviction were also denied by the SCC on the same grounds as previously described in *Sinclair* and *McCrimmon* (*R. v. McCrimmon*, 2010).

These three cases, dubbed the "interrogation trilogy" laid the groundwork for more specific guidelines pertaining to the right to counsel afforded to Canadian criminal suspects (Dufraimont, 2011; Patry et al., 2014). As laid out in these cases, the right to counsel does not guarantee a detainee 1) the right to a specific lawyer of choice, 2) the right to an in-person consultation with a lawyer, 3) the right to have a lawyer present during an interrogation, or 4) the right to a second consultation with a lawyer.

Right to Silence in Canada

Beyond the right to counsel, detainees in Canada are also afforded the right to silence during police interrogation. Unlike to the right to counsel, the right to silence is not specifically stated in the Charter. The SCC, however, has stated that the right to silence is covered under Section 7 of the Charter (*R. v. Hebert*, 1990). Section 7 of the Charter states that "everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice" (Canadian Charter of Rights and Freedoms, 1982, p. 3), which is arguably more ambiguous than Section 10b outlining the right to counsel. As with the

right to counsel, the SCC has established what the right to silence entails, including both the allowances and limitations, through common law case rulings.

In *Hebert* (1990), the accused stated he wished to assert his right to silence and not speak to police investigators while being questioned about a robbery. Investigators then placed Hebert in a jail cell, where an undercover officer elicited incriminating statements from him about the robbery (*R. v. Hebert*, 1990; Schwikkard, 2008; Skinnider & Gordon, 2001). In *Hebert's* appeal, the SCC outlined several inclusions of what the right to silence encompasses. First, detainees must be given free choice about whether to speak to police or not, and investigators cannot interfere with this choice; statements must be given voluntarily. Second, the use of undercover officers actively trying to elicit statements from a suspect is considered a violation of the right to silence. Third, neither judge nor jury are permitted to hold a detainees' pre-trial silence against them as an implication of guilt or non-compliance (*R. v. Hebert*, 1990).

The right to silence is closely tied to the confessions rule, which has also been established through Canadian common law (*R. v. Oickle*, 2000). In both *Oickle* and *Hebert*, the SCC has maintained that, although investigating officers are allowed to use persuasive tactics, they are not allowed to actively elicit statements from a suspect while posed undercover, or to elicit statements from a detainee by use of either threats of harm or promises of leniency. Thus, any statements obtained from a detainee by investigators during police questioning must be given freely and voluntarily to be considered admissible in court (*R. v. Oickle*, 2000).

The SCC has since established limitations of the right to silence. Unlike the right to counsel, Canadian police are not legally required to caution a detainee of their right to

silence; it is expected they will be informed about it through consultation with a lawyer (*R. v. Papadopolous,* 2006; *R v. Smith,* 1996). However, research has demonstrated that the right to silence is typically included police caution read to Canadian detainees, as failing to do so may interfere with the admissibility of any statements given by the arrested person (Davis et al., 2011; Snook et al., 2010). Furthermore, Canadian cautions also generally include some language informing a detainee that any statements they make may be used as evidence against them but not for them (Davis et al., 2011), a limitation that was outlined in *R. v. Simpson* (1988).

The scope of the right to silence has been further limited through the ruling of *R. v. Singh* (2007). Singh was detained and questioned about his involvement in a murder. During the interrogation, Singh stated he did not wish to speak to investigators and asserted his right to silence 18 times. Investigators ignored Singh's requests to say silent and continued questioning him. During the interrogation, Singh eventually made incriminating statements to police. As a result, Singh was charged and convicted. Upon appeal, the SCC ruled that although a detainee can maintain their right to silence by not answering police questions, verbal assertions of the right to silence do not require investigators to end an interrogation or to stop questioning a suspect.

Interrogation Rights: Canada vs. United States of America

Despite being close neighbors, the American justice system and Canadian justice system differ on a few key aspects of interrogations rights afforded to criminal suspects. In the United States, police are required to provide arrested persons with a "Miranda Warning" as per the benchmark case of *Miranda v. Arizona* (1966). Researchers and legal scholars have previously outlined, and commented on, these similarities and

differences in interrogation rights (see Davis et al., 2011; Dufraimont, 2011; Moore & Gagneir, 2008; Patry et al., 2017; Patry et al., 2014). Similarities include the fact that both American and Canadian suspects have the right to an initial consultation with a lawyer and are offered one free of charge if they cannot afford their own (*R. v. Brydges*, 1990; *R. v. Bartle*, 1994; Canadian Charter of Rights and Freedoms, 1982). If an interrogation began before a detainee requested an initial consultation with legal counsel, investigators would have to halt an interrogation and allow the detainee to contact a lawyer (Patry et al., 2014). However, there are key differences in both the right to silence and right to counsel across the two counties.

Right to Counsel. There are a number of substantial differences between the right to counsel afforded to American citizens and Canadian citizens upon arrest. As outlined in the Charter, and subsequently more clearly explained by the "interrogation trilogy" of Supreme Court rulings (*R. v. Sinclair*, 2010; *R. v. Willier*, 2010; & *R. v. McCrimmon*, 2010), Canadian citizens do not have the right to have an in-person consultation with a lawyer; a telephone call is considered sufficient to cover the right to legal consultation. Compared to Canadians, American citizens have the right to an in-person consultation (*Miranda v. Arizona*, 1966). The Charter does not provide Canadian citizens with the right to have a lawyer present during a police interrogation. Interrogation rights for American citizens, as per the *Miranda v. Arizona* (1966) ruling, allow suspects to have a lawyer present during an interrogation. In fact, a police interrogation of an American citizen must be halted until a time when an arrested persons' lawyer is present if the detainee exercises their right to counsel. Canadians do not have this same ability to halt police questioning after exercising their right to counsel, as they are not able to have a

lawyer come and be present during the interrogation. Lastly, Americans have the right to consult with a lawyer a second time if they request so after initially speaking to a lawyer; Canadians do not have this right to a second consultation unless there are specific changes to their circumstances (e.g., new charges are laid, seriousness of charges is increased, or if they are asked to participate in a polygraph, lineup, or some other police procedure; Canadian Charter of Rights and Freedoms, 1982; *Miranda vs. Arizona*, 1966).

Right to Silence. In addition to the differences between the right to legal counsel afforded to Canadians and Americans, there are differences in the protective value of the right to silence as well (Schwikkard, 2008). During police questioning, if a Canadian detainee asserts their right to silence, investigators are not required to halt questioning. This is markedly different for American interrogations, in which investigators are required to halt or end an interrogation when a detainee asserts their right to silence (Dufraimont, 2011; Fitzsimmons & Moore, 2017; Moore & Gagnier, 2008; *Miranda v. Arizona*, 1966). As previously mentioned, the right to silence in Canada is not required to be in police cautions, and police are not legally obligated to inform detainees of this right. In the United States, police are required to inform detainees of their right to silence in a police caution prior to conducting an interrogation (Dufraimont, 2011; Moore & Gagnier, 2008). See Table 1 for an outline of the differences in interrogation rights across Canada and the United States of America.

Table 1

Comparison of Canadian to American Interrogation Rights.

	Right	Type	Canada	USA
1.	Right to consult a lawyer	RTC	Yes	Yes
2.	Right to lawyer free-of-charge	RTC	Yes	Yes
3.	Right to halt questioning for an initial consultation with a lawyer	RTC	Yes	Yes
4.	Right to in-person consultation with a lawyer	RTC	**No**	Yes
5.	Right to have lawyer present during questioning/interrogation	RTC	**No**	Yes
6.	Right to a second (or additional) consultation with a lawyer*	RTC	**No**	Yes
7.	Right to remain silent	RTS	Yes	Yes
8.	Statements made to police can be used against the arrested person	RTS	Yes	Yes
9.	Police legally obligated to inform suspects of their right to silence	RTS	**No**	Yes
10.	Police legally obligated to halt questioning after assertion of the right to silence	RTS	**No**	Yes

Note. Adapted from Patry et al., 2014. RTC represent the right to counsel. RTS represents the right to silence. * It should be also noted that detainees are allowed a second consultation with a lawyer pending major change to their circumstances (e.g., new charges).

Interrogation Rights Globally

Interrogation rights are not only unique to Canada and the United States – numerous counties afford detainees with some form of protections when detained or arrested (The Law Library of Congress, 2016). However, these rights vary between countries and can even vary between state and provincial legislations (Eastwood & Snook, 2010; Smith et al., 2012). Although protective rights differ in terms of specificity and scope, an assessment of over 108 jurisdictions around the globe indicates that, generally, most countries afford suspects both the right to silence and counsel (The Law

Library of Congress, 2016). This report also notes that important components regarding the right to silence and counsel obviously differ by location. For example, most countries have rights in places for detainees to be informed of the reason for their detention (or arrest/charges) and to have the caution, and any other critical information, explained to them in their first language (The Law Library of Congress, 2016).

For the right to counsel, there are some countries with similar protections as Canada, and some that differ – either by extension or further limitations. Similar to Canada, New Zealand provides detainees the right to contact a lawyer, as soon as possible (Hughes et al., 2013). Differing from Canada, a number of jurisdictions, including Argentina, Australia, Costa Rica, Ecuador, Federated States of Micronesia, Kiribati, Marshall Islands, Macedonia Namibia, Palau, and Tuvalu, allow detainees to have a lawyer present during questioning (The Law Library of Congress, 2016).

In regard to the right to silence, a distinction should be made between *pre-trial silence* (e.g., silence during police questioning) and *trial silence* (e.g., silence during court proceedings) as they encompass different protections (Schwikkard, 2009). Most countries provide detainees with the right to silence during interrogation and include it in their cautions (The Law Library of Congress, 2016). Some countries (e.g., Argentina, Bolivia, Iraq, Scotland, Trinidad and Tobego) have protections for detainees wherein inferences of guilt cannot be made from a detainee asserting the right to silence during police interrogation, while other countries (e.g., England and Wales, Cayman Islands, Ireland) allow for inferences of guilt (Carloway, 2012). The European Court of Human Rights considers the right to silence an international standard (Ferguson, 2017; *Saunders*

v. United Kingdom, 1997), and in New Zealand, all cautions include the right to silence (Hughes et al., 2013).

Knowledge of Rights

A suspect can only waive their rights if they have a full understanding of them, and their understanding may be influenced by prior knowledge (or misconceptions) about their rights (Rogers & Drogin, 2016; Winningham et al., 2018). Thus, it is important to know what the base level knowledge of rights is held by the population. However, research into knowledge of rights is quite limited; most research has focused chiefly on assessing comprehension of varying police cautions (Winningham et al., 2018). Of the limited available research, Rogers and colleagues have focused on assessing Miranda rights misconceptions in the United States (e.g., Rogers, 2008; Rogers et al.,2010; Winningham et al., 2018). Their results from this stream of research demonstrates high levels of misconceptions of Miranda rights in the general US population, among different age groups and previous experience of being cautioned by police.

Knowledge of Rights in Canada

Researchers in Canada have sought to assess whether people are generally informed about the rights to silence and counsel. Preliminary results from Patry and colleagues (2014) showed high rates of inaccuracy of interrogation rights knowledge among participants. In this study, participants listened to a recording of rights they would be given in Canada upon arrest and then responded to questions about their legal rights that were provided in the warning. Of the 41 Canadian students, 23 believed they had the legal right to have a lawyer present during an interrogation.

In a second study, a large sample of Canadian students was tested on their general legal knowledge and knowledge of arrest rights (Patry et al., 2017). Results indicated that, of the 377 participants, 86% incorrectly believed they could have a lawyer present during an interrogation, 72% incorrectly believed arrested persons could speak to a lawyer for a second consultation, and 89% incorrectly believed arrested persons have the right to speak to a lawyer of their choosing. In this same paper, a sample of legal professionals (N = 78 criminal lawyers and police officers) was asked to rate how informed they believe suspects are in general about their rights. Of the 13 criminal lawyers, 92.9% believed that the general public do not understand their rights as delivered through police cautions, 81.6% indicated they think that suspects believe the police cannot question them after an assertion of silence, and 85.7% indicated they think that suspects believe the police cannot continue to question them after requesting legal counsel (Patry et al., 2017). Taken together, these two lines of research demonstrate that there is a high rate of misinformation among Canadian students, and that criminal defense lawyers are cognizant of this misinformation effect in their clients.

Despite these available results highlighting the issue of misinformation about interrogation rights in samples of Canadian students being recognized by criminal defense lawyers and psychological researchers, there is a lack of research testing the general Canadians' knowledge of their interrogation rights. As the SCC has recognized that, in order for detainees to truly waive their interrogation rights, they must be knowledgeable about these rights, it is imperative to test whether these misconceptions are also held in the general Canadian public. Additionally, if researchers demonstrate that members of the Canadian community hold these same misconceptions, it is also

important to ensure that Canadian police cautions relayed to detainees are then both informative and comprehendible. Fortunately, researchers have already begun to test the comprehensibility of various Canadian police cautions.

Comprehension of Rights

Comprehension is often considered synonymous with understanding. However, comprehension is a complex phenomenon and can be further divided into reading comprehension and listening comprehension (Rubin et al., 2000). Psychological experts have posited that individuals construct meaning from reading or listening by using metacognition, which considered to be the ability to think about, and control, the learning process (Knuth & Jones 1991). Indeed, research has illustrated that both metacognition and working memory are associated with comprehension (Carretti et. al, 2014). Though listening comprehension and reading comprehension are associated, listening comprehension requires additional demands of an individual's processing of information (Rogers et al., 2007). It is no surprise then, that research from numerous countries indicates that it is rare for people to fully comprehend police cautions, that are most often read verbally to them, and in turn, to understand their rights fully (Clare et al., 1998; Grisso, 1981; Hughes et. al, 2013, Innes & Erlam, 2018).

From this research, we know that caution comprehension can be influenced by several elements, including both individual (e.g., memory and cognitive abilities) and situational (e.g., delivery and content) factors. Intellectual ability has been shown to influence the capability to understanding of police cautions (Cooke & Philip, 1998; Fenner et al., 2002; Fulero & Everington, 1995; Gudjonsson & Clare, 1994; Rendall et al., 2020), and suspects are often intellectually disadvantaged in comparison to the

general population (Gudjonsson et al., 1993). Caution delivery mode (verbal, written, or both), though generally done verbally (Snook, Eastwood, & MacDonald, 2010), can also influence comprehension: individuals demonstrate lower levels of caution recall when rights are delivered orally (Eastwood & Snook, 2010). This lack of comprehension for oral cautions may in part be due to the speed of delivery (Snook et al., 2010) or the complexity of caution wording and content (The Law Library of Congress, 2016; Rogers et al., 2008; Rogers et al., 2007). Other factors that have been studied but have a less clear relationship with caution comprehension include mental health, age, and education (Rendall & MacMahone, 2021).

An additional factor that may impact caution comprehension is prior knowledge. Miscomprehension of police cautions that relay the right to silence and right to counsel to detainees can become particularly problematic if a detainee already holds misconceptions about their interrogation rights (Rogers, 2008; Patry et. al, 2017; Winningham et al., 2018). If a detainee is misinformed about their interrogation rights before hearing a caution, it may lead to lower rates of comprehension compared to those who had no previous knowledge about rights (Winningham et al., 2018).

In addition, all of these individual factors that impact comprehension can be compounded by the fact that cautions, which vary jurisdictionally, contain complex structure and wording and are almost always relayed verbally to detainees by police (Davis et al., 2011; Eastwood et al., 2010; Rogers, 2008). This differs from other commonwealth countries (e.g., New Zealand), which have standardized cautions (Innes & Erlam, 2018). Words contained in police cautions may be complex, require a higher level of education to understand, and may be unfamiliar as they are not often be heard or

used outside of legal contexts (Cooke & Philip, 1998; Hughes et al., 2013; Rogers & Drogan, 2014; Rogers, et al., 2007; Rogers et al., 2008). Furthermore, cautions can vary significantly in terms of length, which in turn impacts listening capacity (Rogers et al., 2007; Rogers et al., 2008). People often must keep multiple pieces of important information in their mind, while being told further important information.

Legally, a lack of caution comprehension poses a serious justice system concern, as miscomprehension of police cautions may lead to misinformed, irrational, waivers of rights. Improper waivers can potentially lead to disastrous consequences, including problematic confessions (Rogers & Drogin, 2016), which in turn can hurt innocent suspects, who may make false statements, and police investigators, whose elicited statements may have admissibility issues. Psychological scientists have realized these issues and have been conducting important research into comprehension and knowledge of Miranda rights in the United States since the 1980s. A number of instruments to measure Miranda comprehension have been constructed, beginning with Grisso's 'Instruments for Assessing Understanding and Appreciation of Miranda Rights' (1981; 1986). Subsequent instruments, such as the Miranda Quiz (MQ; Rogers et al., 2012) and Juvenile Miranda Quiz (JMQ; Rogers, 2010), have also been developed, all with the goal of assessing misconceptions of Miranda rights. Research utilizing the latter scales has shown that serious miscomprehensions about interrogation rights relayed through Miranda warnings commonly occur, even among juveniles and adults who have been previously detained or arrested, and thus have been read their rights before (Rogers et al., 2013; Sharf et al., 2017; Winningham et al., 2018). This issue is mirrored in a large

sample of Americans, whom only 15.3% agreed that suspects understand their Miranda rights (Mindthoff et al., 2018).

Research into caution comprehension conducted in other commonwealth countries demonstrates similar results. In New Zealand, at least one study indicates that people struggle to comprehend their rights as relayed by police, even with a standardized caution (Innes & Erlam, 2018). Similar results have been noted by Scottish researchers, wherein one study demonstrated that only 5% of people sampled from the general population understood their rights when verbally delivered (Hughes et. al, 2013). These results are reflected in England and Wales as well, where, even under optimal experimental conditions, very few of the sampled participants (11%) demonstrate full understanding of their rights (Fenner et al., 2002). As noted in a recent meta-analysis on global caution comprehension, the quality and amount of general research into caution comprehension is limited, and riddled with limitations (Rendall & MacMahone, 2021).

Comprehension of Rights in Canada

Researchers have also measured comprehension of standard police cautions in Canada, but the available literature is now older, more limited, and less representative. The first of this work began in the 1990's, with the 'Test of Charter Comprehension' (Olley, Ogloff, & Jager, 1993). More recently, the focus has shifted to and trying to improve comprehension through testing different delivery methods, assessing cautions for readability, structure, and content, and modifying cautions. Eastwood and Snook (2010) tested the difference in comprehension between police cautions presented verbally versus in a written format. The researchers also note that, in most cases, arrested persons and criminal suspects are verbally informed of their rights by police officers. Their

results demonstrated that participants were generally confused regarding both the right to silence and right to counsel when provided with either written or verbal format but held significantly lower levels of recall when rights were delivered orally (Eastwood & Snook, 2010). An additional important finding from this study was that there was no relationship between caution comprehension and previous knowledge: participants who indicated they had been read their rights by police before were no better at comprehending the caution (Eastwood & Snook, 2010).

Researchers have also explored how Canadian police deliver cautions to detainees through assessing a sample of real police interviews. Snook and colleagues (2010) examined a sample of 126 police interrogations (videotaped or transcribed) and coded how warnings of the rights to silence counsel were delivered to detainees. The researchers found that oral warnings were delivered to suspects very quickly, which may negatively impact how much content can be comprehended. Additionally, when suspects gave confirmation of understanding of their rights, there was a lack of follow-up by interrogators to verify this confirmation. These two results create concerns that suspects do not fully understand their rights but may be stating they do understand to avoid seeming like they are uncooperative (Snook, Eastwood, & MacDonald, 2010).

Some researchers in Canada have also tried various caution modification techniques while focusing on linguistic properties in attempts to improve current police warnings. These modifications have focused on altering and testing whether different wording or structure can lead to higher comprehension of interrogation rights. One camp has focused on revising the right to silence portion of Canadian cautions (i.e., see Davis, Fitzsimmons, & Moore, 2011; Fitzsimmons & Moore, 2017; Moore & Gagnier, 2008)

while another has worked on revising the right to counsel portion of Canadian cautions (i.e., see Eastwood et al., 2010; Eastwood & Snook, 2012; Snook et al., 2014).

Right to Silence Comprehension. In one of their earlier studies, Moore and Gagnier (2008) tested whether a modified right to silence caution could improve comprehension in a sample of Canadian students. They utilized a current Canadian police caution from Toronto, Canada. In their study, 93 students were randomly assigned to hear one of four caution versions: the Toronto police caution, or one of three modified versions of the caution using substituted language to reduce sentence complexity. Due to similarities across the modified cautions, two versions were collapsed, and results demonstrated similar levels of comprehension across all cautions; 43% of students demonstrated full comprehension, while 15% demonstrated no comprehension. In a later study, Davis and colleagues (2011) again used the Toronto police caution and created one modified caution based on the results of the Moore and Gagnier (2008) study. A sample of 105 students was utilized to determine whether the newly modified version of the caution could lead to higher rates of comprehension. The researchers found that participants who heard the modified caution demonstrated higher comprehension levels compared to those who heard the standard Toronto police caution. Most recently, Fitzsimmons and Moore (2017) again tested a right to silence caution, with a focus on comparing participants' stated comprehension to actual comprehension. A sample of 128 university students were randomly assigned to one of four conditions: the Davis et. al (2011) caution, the Winnipeg Police caution, a parallel passage, and a nonsensical passage. The modified caution led to better levels of comprehension (91% full or partial comprehension) compared to the Winnipeg Police caution (18% non-comprehension).

As a result, actual to stated comprehension was also highest in the modified caution condition (Fitzsimmons & Moore, 2017).

Taken together, these three studies underscore the problem that, in general, police cautions relaying the right to silence are not well understood by listeners. Across three studies, right to silence cautions from two major Canadian police organizations demonstrated low levels of comprehension in samples of student participants. It should also be noted that, none of the modified and empirically tested right to silence cautions across this series of studies included any additional information about the limitations of the right to silence.

Right to Counsel Comprehension. In one of their earlier studies, Eastwood, and colleagues (2010) compared two standard Canadian police cautions to a created caution to test comprehension of the right to counsel. A sample of 121 university students randomly heard one of three cautions: the Brockville Police Services caution, the North Bay Police Service caution, and the created caution. The created caution was designed from the Charter (1982) definition of right to counsel and made to follow five readability and complexity measures (Flesch-Kincaid reading level, sentence complexity, use of difficult words, use of infrequent words, and number of words). Results demonstrated that the created caution led to the higher levels of participant comprehension compared to both the Brockville and North Bay cautions (Eastwood et al., 2010).

In a later study, Eastwood & Snook (2012) again modified a current Canadian police caution to increase comprehension, focusing on three listenability factors: instructions, listing, and explanations. Participants who heard a caution containing the added explanatory sentences demonstrated the highest levels of comprehension. The

added sentences, which explained what each point of the rights meant in greater detail, provided more information to participants than the unmodified police warning. Their results suggest that modification of police caution to provide a better, clearer, explanation of interrogation rights may help to increase arrested suspects comprehension (Eastwood & Snook, 2012).

In the most recent study of this research program, Snook and colleagues (2014) tested whether two previously modified cautions could maintain comprehension improvements under a mock-interrogation paradigm. One modified caution (taken from Eastwood et al., 2010) included restructured wording, and the other (taken from Eastwood & Snook, 2012) included restructured wording and added explanatory sentences. Students were randomly assigned to hear one of the two cautions. Their results again demonstrated support for the use of explanatory sentences in police cautions: students who heard the explanatory caution recalled significantly more key pieces of information about the rights to counsel than those who heard the base modified caution (Snook et al.,2014). Taken together, these studies demonstrate that comprehension of interrogation rights can be improved through specific modifications (e.g., by adding explanatory sentences).

The Present Research

When detainees hold misconceptions or misunderstandings of interrogation rights, it can diminish how the effective the rights are at protecting them from the criminal justice system (Eastwood & Snook, 2010). A detainee can only waive or assert their rights if they have a full understanding and of them (*Clarkson v. The Queen*, 1986; *Korponay v. Attorney General of Canada*, 1982). The interactional issue of holding

initial false beliefs about arrest rights, and then later not correctly comprehending arrest rights when they are delivered through complex police cautions, leaves detainees in an exceptionally disadvantaged position. Suspects who falsely believe they are afforded certain rights, such as the right to have a lawyer present during questioning, may be particularly vulnerable to police interrogation (Patry et al., 2017; Patry et al., 2014).

It is clear that a police interrogation can be a highly stressful situation for suspects (Irving & Hilgendorf, 1980; Kassin et al., 2017; Kassin & Gudjonsson, 2004). In fact, recent research indicates that stress experienced during an interrogation can increase detainee compliance (Morgan et al., 2020). When a detainee enters an interrogation with the false assumption that they have certain rights to protect them, upon discovering they do not actually have those rights, this may increase the amount of stress that they already feel. In addition, this poses legal problems for investigators as well, as elicited statements made any detainee who uninformedly waived their rights would be deemed inadmissible and not be able to be used as evidence in later criminal proceedings (Eastwood et al., 2014). It is therefore imperative that researchers strive to improve Canadians knowledge and comprehension of arrest rights to better safeguard both detainees and investigators.

Although a number of studies have made important strides towards testing and improving Canadians' knowledge and comprehension of interrogation rights, several pressing issues remain. First, there is a lack of research regarding the knowledge and misconceptions of interrogation rights held by Canadian community members. Second, revisions of current police cautions have chiefly focused on modifying linguistic properties to improve comprehension (e.g., restructuring wording, decreasing text grade level, and adding explanatory sentences). These linguistic improvements are important,

as across studies restructured and simplified cautions have led to comprehension improvements compared to their current police caution counterparts (Fitzsimmons & Moore, 2017; Eastwood & Snook, 2012). However, no researchers to date have sought to test whether misconceptions of interrogation rights can influence comprehension. That is, no one has tested whether adding informational sentences regarding the limitations of interrogation rights to modified cautions can improve comprehension. Importantly, no current Canadian police cautions contain information on these limitations either (Snook et al., 2010). As such, it is important to test whether informing detainees about their rights *and* limitations can improve comprehension above and beyond what has been demonstrated in previous research.

The following program of research focused on conducting three interrelated studies designed to address the current limitations noted in the literature regarding Canadians' knowledge and comprehension of interrogation rights. First, an assessment of the Canadian community's knowledge of arrest rights was conducted (Study 1). Next, Canadian comprehension of interrogation rights cautions was tested, with a goal to increase comprehension by modifying a current widely used police caution to be more clear, explanatory, and informative (Study 2). Lastly, these same cautions were tested again in a mock-interrogative paradigm to increase ecological validity and measure resulting knowledge and comprehension (Study 3).

STUDY 1

Incorrect knowledge or beliefs about interrogation rights may influence how a detainee interprets and asserts, or waives, their rights. Previous research has demonstrated that Canadian students are generally misinformed about their interrogation

rights (Patry et al., 2017; Patry et al., 2014), but this issue has yet to be addressed in the general Canadian population. Thus, the purpose of Study 1 was to gain further understanding of Canadian community members' knowledge of interrogation rights.

Hypotheses

Based on the previous literature demonstrating high rates of misconceptions regarding interrogation rights, four inter-related hypotheses were formulated. First, it was expected that Canadian community members would demonstrate misconceptions at a rate higher than chance (>50%) on two issues regarding rights to counsel:

H1: The ability to speak to a lawyer multiple times, and

H2: the ability to have a lawyer present during police questioning.

Second, it was also expected that Canadian community members would hold misconceptions at a rate higher than chance (>50%) on two issues regarding the right to silence:

H3: Asserting the right to silence will end an interrogation, and

H4: that remaining silent during police questioning can be held against them or indicate guilt.

Methodology

To test the hypotheses, Study 1 utilized on online survey method to test Canadian community members on their knowledge of interrogation rights. The study took participants approximately 30 minutes to complete online. Qualtrics panel system was used to collect a diverse and complete sample of community members from across Canada.

Participants

A sample of Canadian community members (N = 212) was collected using Qualtrics paid panel system. As Qualtrics panel is a paid system to collect complete responses from a sample of participants, no participants were removed from this study. Participants were paid $5.99CAD for completion. Of this sample, no participants identified as being a current student. Just over half of the respondents were female (n = 112, 52.5%). Age of respondents ranged from 18 to 80, and the average age was M_{age} = 30 (*skew* = -.21, *kurtosis* = -1.0). Most participants reported living in urban areas across Canada (n = 171, 80.7%), with many residing in Ontario (43.9%), Quebec (19.3%), British Columbia (12.7%), and Alberta (10.8%). Overall education ranged from Grade 8 (n =1) to doctoral degree earners (n = 3), but participants chiefly reported achieving an undergraduate degree (n = 62, 29.5%), a high-school diploma (n = 58, 27.6%), or college degree (n = 44, 21%). In terms of demographic variables that may preliminarily influence participant knowledge of interrogation rights, the majority of respondents indicated they had no affiliation with legal system (n = 202, 95.3%), had not studied Canadian law or were unsure (n = 199, 94%), had not been read their rights by police or were unsure (n = 182, 85.8%), and were not familiar with Canadian Charter of Rights and Freedoms or were unsure (n = 155, 73.1%).

Measures

To test the proposed hypotheses, the measures used in Study 1 consisted of two open-ended questions, nine vignettes, and 20 true/false statements, six perception questions, and demographic questions. All measures in Study 1 focused on assessing

working knowledge of interrogation rights, however, measures were designed in mind to be able to measure both comprehension and knowledge in following studies.

Consent and Qualification. Prior to answering any questions, respondents were given an informed consent form (see Appendix A) and then asked to complete three qualifying demographics prior to participation: 1) Canadian citizenship, 2) student status, and 3) their age. Respondents were only able to participate if they identified as a non-student Canadian citizen over the age of 18.

Open-ended Questions. Respondents were first asked to answer two open-ended questions regarding interrogation rights. There was no text or word limit, so respondents could provide as much information as they believed necessary. First, respondents indicated all of the rights they think Canadians have when facing a police interrogation. A coding guidebook was created to assess free recall (Appendix B). In total, 28 pieces of information were coded for: 1 code for the right to be informed, 6 codes for the right to silence, 7 codes for the right to counsel, and 14 other codes for random information not directly related to the right to silence or right to counsel. Of the 28 codes, 11 related to correct recall components of the cautions, and 2 were related to incorrect recall (have lawyer present, speak to lawyer in person). The remaining items were related to different common random responses of participants that were not specific to the right to counsel or right to silence. Second, respondents were asked to list the sources they gather the majority of their legal knowledge. As this was an open-ended question, a coding book with 59 items was created to assess the responses about legal knowledge sources (Appendix C). There were 9 codes related to Education, 8 codes related to Books, 8 codes related to Legal Sources, 7 coded for Legal Affiliations, 6 codes for News, 6 codes

for Television, 4 codes for Other People, 3 codes for Personal Experience, 2 codes for the Internet, 1 code for Social Media, 1 code for Work, 1 code for Other. Two coders (the main author and an undergraduate research assistant) were trained on the code book and coded all participant responses.

Vignettes. To capture Canadians' knowledge of interrogation rights in practice, respondents were presented with a series of nine vignettes of scenarios involving either the rights to silence or counsel (Appendix D). Six vignettes involved the right to counsel, and three vignettes involved the right to silence. Five vignettes included a violation of a detainee's legal rights, and four did not include any violations. The vignettes ranged from 60 to 92 words (M_{words} = 72.2). In all scenarios, participants were told that the arrestee was read their legal rights. After reading a vignette, participants were asked "Did the police violate "____'s" legal rights?". Responses were recorded as either 1) Yes or 2) No. Following this binary response, participants were asked to answer an open-ended question of why they believed the detainees rights were or were not violated.

True/False Statements. Participants were asked to respond to 20 true/false statements regarding interrogation rights (Appendix E). Nine statements involved the right to counsel, and 11 statements involved the right to silence. Statements ranged from 13 to 30 words (M_{words} = 20). Each statement was measured using a Yes or No binary response.

Perception Questions. To gain another perspective of how Canadians think about the assertion of interrogation rights, participants were asked to respond to five perception questions (Appendix F). Two questions pertained to guilty suspects asserting their rights, and the remaining three were about innocent suspects. Statements ranged from 16 to 20

words (M_{words} = 18) and were measured using a 7-point Likert-type scale ranging from 1 – Strongly Disagree to 7 – Strongly agree.

Demographics. Participants were asked to respond to a set of general demographics and some legal related demographic questions (Appendix G). In terms of general demographics, participants answered six questions about their 1) citizenship, 2) student status, 3) age, 4) province of residence, 5) type of area of residence, and 6) highest level of education. To determine whether knowledge of arrest rights might be influenced by a participants' general legal knowledge or affiliation, participants were asked to answer four questions about 1) whether they have an affiliation with the legal system, 2) whether they have previously studied Canadian law, 3) whether they are familiar with the Canadian Charter of Rights and Freedoms, and finally 4) whether they have ever been read their legal rights by police.

Results

Analyses conducted for Study 1 results focused on assessing Canadians' knowledge accuracy and perceptions about interrogation rights. For measures assessing knowledge, analyses included coding and comparing inter-rater reliability for open-ended items and running frequency and descriptive analyses for the situational vignettes and true/false statements. For perceptions of interrogation rights, descriptive and frequency analyses were conducted. As there were no experimental conditions in Study 1, no comparative analyses were conducted. Results for individual measures of interrogation rights knowledge discussed below.

Knowledge of Interrogation Rights

Open-ended Responses. Open ended responses were coded using the guidebook (Appendix B) described above. First, to assess inter-rater reliability, Cohen's κ was used to determine if there was agreement between the two coders on 25 items from the code book[2]. Results demonstrated a range of moderate to full agreement between the two coders, κ = .564 to 1.00 (*p's* < .001). Frequencies ranged from 0% to 64.6%, and the most common freely reported interrogation rights components were the right to counsel (64.6%, *n* = 137), the right to silence (42.9%, *n* = 91), right to have lawyer present during questioning (12.7%, *n* = 27), and right to a (general) phone call (11.3%, *n* = 24). Full results for inter-rater reliability, accuracy, and frequency for all coded items can be found in Table 2. Next, participants were given a knowledge composite score out of 11 based on the 11 correct and 2 incorrect coded items of interest (regarding right to silence and right to counsel). Valence was reversed for the 2 incorrect items. Overall, average comprehension scores were low $M_{correct}$ = .99 (*SD* = .88, range = -1 to 3).

Table 2

Inter-rater Reliability and Frequencies of Coded Items Measuring Open-ended Knowledge of Interrogation Rights.

	Coded Content	Frequency	Accuracy	Cohen's κ
1.	Right to remain silent	91	Correct	.981***
2.	Statements made used as evidence against them	0	Correct	--
3.	Nothing to hope from promise / favours	1	Correct	1.00**

[2] Please note that, of the 28 items coded, 3 were not analyzed as they pertained to coding "other" responses, "don't know/not sure" responses, and "nonsensical" responses. Responses in these coded categories were unrelated and too few and far in between to evaluate.

4.	Nothing to fear from threats or violence	5	Correct	.604***
5.	Police can continue questioning if person remains silent/invokes right to silence	0	Correct	--
6.	Remaining silent can't be held/used against you	0	Correct	--
7.	Right to a lawyer/counsel (speak/call/talk)	137	Correct	.928***
8.	Right to lawyer is immediate/before questioning	0	Correct	--
9.	Right to free legal aid / free lawyer / duty counsel	2	Correct	1.00***
10.	Right to phone number to call free lawyer	0	Correct	--
11.	Right to apply for legal aid / lawyer in later court proceedings	0	Correct	--
12.	Right to have lawyer present during questioning	27	Incorrect	.959***
13.	Right to speak to/consult with a lawyer in person	0	Incorrect	--
14.	Right to silence (other)	2	Unrelated	.662***
15.	Right to be informed of charges/reason	12	Unrelated	.847***
16.	Right to a phone call (general)	24	Unrelated	.977***
17.	Right to basic needs (bathroom / water / food / sleep)	6	Unrelated	1.00***
18.	Right to Medicine / medical access	5	Unrelated	1.00***
19.	Right to clean / humane conditions (cell/holding place)	2	Unrelated	1.00***
20.	Right against unlawful searches (no warrant)	3	Unrelated	.564***
21.	Innocent until proven guilty	9	Unrelated	.895***
22.	Right against self-incrimination	5	Unrelated	1.00***
23.	Right against electronic searches (cell phone, computer)	3	Unrelated	.855***
24.	Right to legal fairness / fair trial	6	Unrelated	.921***
25.	Right to correct language / interpreter	3	Unrelated	.798***

Note. N = 212 Canadian community participants. *** indicates $p < .001$, ** indicates $p < .01$. Cohen's κ could not be coded for items where there were zero responses. A full list of coded items can be found in Appendix B. Items were coded by the main author and a trained undergraduate research assistant.

Situational Vignettes. Results of the descriptive analyses for the nine vignettes are displayed in Table 3. In two of the vignettes, participants demonstrated higher than chance (>50%) levels of incorrect knowledge regarding the right to counsel. In support of hypothesis 1, 85% of participants incorrectly believed a detainee's rights were violated when they were not allowed to have a lawyer present after an initial phone call. In addition, hypothesis 2 was also supported: 66% of participants incorrectly believed the detainee's rights were violated when they were denied a second consultation with a lawyer. Neither hypothesis 3 nor 4 regarding the right to silence were supported through the vignette measures.

Table 3

Situational Vignette Frequencies of Incorrect Knowledge of Canadians' Interrogation Rights.

	Vignette Theme	Right	Violation	Incorrect
1.	Ask to have lawyer present (after initial phone call)	RTC	No	85%
2.	Denial of second consult with lawyer	RTC	No	66%
3.	Second consult with lawyer (of choice, after using free legal aid)	RTC	No	47%
4.	Invoke right to silence, police continued questioning	RTS	No	46%
5.	Promises of sentence leniency if talk to police	RTS	Yes	46%
6.	Threats (of worse sentence) if did not talk to police	RTS	Yes	29%
7.	Denial of initial consult with lawyer	RTC	Yes	23%
8.	Denial of free legal aid	RTC	Yes	19%
9.	Forced to answer questions prior to consulting lawyer	RTC	Yes	14%

Note. N = 212 Canadian community participants. RTC represents right to counsel. RTS represents right to silence.

True/False Statements. Descriptive analyses for the 20 True/False statements are presented in Table 4. Results showed high levels of misconceptions regarding interrogation rights within the Canadian population. Again, in support of hypothesis 1, 72% of participants falsely believed an arrested person can speak to a lawyer multiple time. Hypothesis 2 was again supported as well: 95% of participants erroneously believed they could have a lawyer present during an interrogation. Regarding the right to silence, hypothesis 3 was supported: 60% of participants incorrectly believed police have to stop questioning them if they assert their right to silence. Hypothesis 4 was not supported: only 19% of people incorrectly believed if a detainee remains silent it could be used against them to infer guilt. In addition to testing the four main hypotheses, results indicated that participants held incorrect beliefs (>50%) for several additional issues regarding interrogation rights. For example, 79% of participants incorrectly believed an arrested person can contact their lawyer of choice regardless of how long it takes, and 87% of participants incorrectly believed that Canadian police are legally obligated to inform a detainee of their right to silence. Furthermore, 58% of participants believed that a police officer could not pretend to be a prisoner in a nearby jail cell to get a suspect to talk, and 50% of participants believed police could tell an arrested person they may get a reduced prison sentence if they complied and answered police questions.

Table 4

True/False Frequencies of Incorrect Knowledge of Canadians' Interrogation Rights.

Statement Theme	Right	Answer	Incorrect
Police have to allow an arrested person to have a lawyer present during an interrogation if they request one	RTC	False	95%

An arrested person has the right to contact a lawyer of their choosing, regardless of how long it takes to contact the lawyer	RTC	False	79%
An arrested person has the right to speak with a lawyer multiple times during an interview	RTC	False	72%
An arrested person is required to have a lawyer present during an interrogation	RTC	False	22%
An arrested person must fully comprehend their legal rights before the police can question them	RTC	True	13%
The police are required to provide an arrested person with the contact information of a free legal aid lawyer if they want to contact one for legal advice before questioning	RTC	True	7%
An arrested person has the right to talk to a lawyer and receive legal advice before the police ask them any questions	RTC	True	6%
Police are required to inform an arrested person of their right to contact and talk to a lawyer prior to any questioning	RTC	True	5%
An arrested person has the right to contact a free legal aid lawyer.	RTC	True	5%
The police are not required to inform an arrested person that they can remain silent and choose to not answer any questions	RTS	True	87%
Statements made by an arrested person supporting the fact that they are innocent will be used as evidence for them in court	RTS	False	72%
If an arrested person states they have chosen to exercise their right to silence, police have to stop questioning them.	RTS	False	60%
Police can pretend to be a prisoner in a nearby jail cell to get an arrested person to talk	RTS	True	58%
Police can tell an arrested person they may get a reduced prison sentence if they choose to speak and answer questions during an interrogation	RTS	False	50%
Police can tell an arrested person they may receive a lengthier prison sentence in they refuse to speak and answer questions during an interrogation	RTS	False	38%
If an arrested person remains silent during a police interrogation, later at their trial the judge (or jury) can infer that they might be guilty	RTS	False	19%

Police can pretend to be a priest or chaplain to get an arrested person to talk	RTS	False	12%
Statements given by an arrested person to police can be used as evidence against them in court	RTS	True	6%
An arrested person has the right to remain silent and choose not to answer police questions during an interrogation	RTS	True	5%
Police can pretend to be a lawyer to get an arrested person to talk	RTS	False	4%

Note. N = 212 Canadian community participants. RTC represents right to counsel. RTS represents right to silence.

Perceptions of Interrogation Rights

Regarding guilty suspects, when participants were asked whether guilty suspects are more likely than innocent suspects to request to speak to a lawyer during police questioning, 37% disagreed or strongly disagreed (n = 79), while only 9.9% (n = 21) agreed or strongly agreed (M = 3.28, SD = 1.69). Similarly, when asked whether guilty suspects would be more likely than innocent suspects to request to have a lawyer present during police question, most participants disagreed (n = 83, 38.9%) or strongly disagreed, while 11.3% (n = 24) agreed or strongly agreed (M = 3.29, SD = 1.72). Lastly, when asked whether guilty suspects were more likely than innocent suspects to remain silent during police questioning, 30.2% (n = 64) disagreed or strongly disagreed, while 15% (n = 32) agreed or strongly agreed (M = 3.70, SD = 1.78). Regarding innocent suspects asserting rights, when participants were asked if an innocent suspect does not need to contact a lawyer during police questioning, 70.8% (n = 150) disagreed or strongly disagreed while 3.3% (n = 7) agreed or strongly agreed (M = 2.10, SD = 1.39). Lastly, when asked whether an innocent suspect should cooperate with police and answer

questions, 24.5% (n = 52) disagreed or strongly disagreed while 20.3% (n = 40) agreed or strongly agreed (M = 3.98, SD = 1.78).

Demographic Factors

Although not hypothesized, two bivariate linear regression analyses were conducted to test whether, across the sample of Canadians, differences in participant age and education level significantly influenced overall scores of knowledge of interrogation rights.

Age. First, age was associated with performance on knowledge of rights measured through the true/false statements, R^2 =.062, *adjusted* R^2 =.058, $F(1, 208)$ = 13.82, p <.001, and accounted for 6% of the differences in knowledge scores. Every 1-year increase in participant age was associated with a .03 increase in knowledge of rights scores.

Education. Although our measure of education was not perfectly interval in nature, we tested whether there was a relationship to performance on the true/false statement measure of interrogation rights. A bivariate linear regression indicated that the education level of our sample did not impact their knowledge of rights, R^2 =.009, *adjusted* R^2 =.005, $F(1, 204)$ = 1.94, p =.165.

Knowledge Sources

Sources of legal knowledge, as measured in an open-ended method, were coded and analyzed. First, the 59 coded pieces of information were collapsed across 12 categories (see Table 5). To assess inter-rater reliability, Cohen's κ was used to determine if there was agreement between the two coders on the 12 collapsed item categories. Results demonstrated full agreement on all 12 categories between the two

coders, κ = 1.00 (*p's* < .001). Frequency analyses indicated that the most commonly reported knowledge source was Television (*n* = 52, 24.5%), followed by the Internet (*n* = 50, 23.6%), and the News (*n* = 31, 14.6%).

Table 5

Inter-rater Reliability and Frequencies of Coded Participant Reported Legal Knowledge Sources.

	Coded Content	Frequency	Cohen's κ
1.	Television	52 (24.5%)	1.00***
2.	Internet	50 (23.6%)	1.00***
3.	News	31 (14.6%)	1.00***
4.	Personal experience	28 (13.1%)	1.00***
5.	Affiliations to Legal System	27 (12.7%)	1.00***
6.	Legal Sources	25 (11.8%)	1.00***
7.	Other people	24 (11.3%)	1.00***
8.	Other	15 (7.1%)	1.00***
9.	Books	15 (7.1%)	1.00***
10.	Education	10 (4.7%)	1.00***
11.	Work	3 (1.4%)	1.00***
12.	Social Media	1 (.5%)	1.00***

Note. *N* = 212 Canadian community participants. *** indicates *p* < .001. A full list of coded items can be found in Appendix C. Items were coded by the main author and a trained undergraduate research assistant.

Discussion

Previous research has demonstrated that Canadian students are not well informed about interrogation rights and have high levels of misconceptions about key limitations to the rights to silence and counsel (Patry et. al, 2017). Less was known about the Canadian community's knowledge of interrogation rights. Knowledge, and, in particular,

misconceptions, of interrogation rights have been cited as a possible factor impacting caution comprehension and effective utilization of rights when facing police questioning (Rogers et al., 2014; Winningham et al., 2018). As such, Study 1 sought to address this gap and test general knowledge of interrogation rights in a sample of Canadian community members through open-ended, true/false, and vignette measures.

Knowledge of Interrogation Rights

Overall, Canadian community members demonstrated high rates of misconceptions across multiple measures. For open-ended measures of knowledge, general response rates were low in that participants did not provide very detailed answers. Of what was reported, the most common was general responses of having the right to silence and having the right to counsel. These responses were general in that they lacked any further detail on what these two rights entail. Additionally, roughly 1/8th of participants in this study also freely reported that Canadians have the right to have a lawyer present during questioning, which is incorrect. Importantly, no participants in this sample freely noted any of the key limitations to interrogation rights outlined in Canadian case law through Supreme Court of Canada rulings.

High rates of misconceptions about interrogation rights were again seen when looking at specific questions designed to target general interrogation rights knowledge (e.g., true/false statements) and working interrogation rights knowledge (e.g., vignettes). Thus, as hypothesized, these results suggest that Canadian community members hold a high rate of misconceptions (>50%) regarding the right to counsel. Specifically, both hypotheses 1 and 2 were supported: a large percentage of Canadians incorrectly believe that an arrested person facing police interrogation could speak to a lawyer a second time

(Hypothesis 1) and could have a lawyer present during questioning (Hypothesis 2). In addition, one the two hypotheses regarding the right to silence were supported: Canadians incorrectly believed that, by asserting the right to silence, police have to stop questioning them (Hypothesis 3).

Demographic Influences

The sample of Canadians collected for this first study were quite representative of the overall Canadian population in that there was roughly an equal number of men and women, from all ages, and all educational backgrounds. Geographically, this sample was also representative of the distribution of population across the Canadian provinces as per Statistics Canada (2022) in that most of the sample resided in Ontario, Quebec, British Columbia, and Alberta, respectively. Initially, it was not hypothesized that demographic factors of our sample would impact Canadians' knowledge of interrogation rights, as many were controlled for (e.g., being non-students, equal split of sex). However, as research has long cited individual factors, such as cognitive ability (Erickson et al., 2020; Fulero & Everington, 1995) and sophistication (e.g., age, Abramovitch et al.,1995; Grisso, 1981; Zelle et al., 2015), as having an influence on comprehension, some exploratory analyses were conducted. For our sample of Canadians, age did have a small impact on interrogation rights knowledge performance in that as age increased, so did performance. This finding is not surprising given that this issue has been recognized by the Canadian criminal justice system (see *R. v. L.T.H.*, 2008), and is why Youth Justice forms exist to provide written information about interrogation rights to detained youths (Eastwood et al., 2012; Youth Criminal Justice Act, 2002). Education, as a rudimentary measure of cognitive ability, was evaluated as a potential influencing factor as well but

did not appear to impact Canadians' performance on interrogation rights measured through true/false statements in this study.

Perceptions

In addition to assessing Canadians knowledge of interrogation rights, Study 1 also collected responses regarding perceptions about the utilization of the rights to counsel and silence. In general, most Canadians seem to be in favour of a detainee (either guilty or innocent) asserting their rights. When looking at use of the right to counsel, most participants seem to acknowledge that requesting a lawyer is not something that guilty people would do more so than innocent suspects when facing police questioning. Furthermore, Canadians are clear in their belief that innocent suspects should still utilize their right to counsel. When looking at the right to silence, Canadians were less strong in their convictions on whether or not guilty people are more likely to stay silent and were evenly split on whether innocent suspects should cooperate with police and answer questions. From these perception questions, it is clear Canadians believe utilizing the right to counsel is important but are more on the fence about the right to silence.

Knowledge Sources

Although not directly related to any hypotheses for Study 1, information about where Canadians gather their legal knowledge from was collected as it could be a potential factor related to misconceptions of interrogation rights. When looking at sources of where people get their general legal knowledge from, we can see that Canadians most commonly report Television as their source for legal information. This is an interesting finding, especially if we consider that some part of this television sourcing likely includes crime television with a US content focus. As discussed earlier,

there are a number of critical components of the right to silence and right to counsel that differ across Canada and the US – wherein Canada the scope is more limited to what the two rights entail (Patry et al., 2017; *R .v. Sinclair*, 2010; *R. v. Singh*, 2007). There is a possibility that the viewing of crime television shows may be linked to knowledge (both correct and incorrect) about interrogation. Researchers have explored the potential effects of crime television viewing on a number of legal issues and have dubbed this phenomenon the "CSI Effect" (Patry et al.,2008; Schweitzer & Saks, 2007). However, it should be noted that there is mixed evidence on whether the CSI effect exists (Klentz et al., 2020; Shelton, 2008). This is something to be explored further in future research. The second most commonly reported source was the internet, which is a lot more broad and harder to evaluate as people could be going to any webpage for information, and we only coded for a) general responses of the internet and b) the use of internet search engines.

Implications and Solutions

Overall, Study 1 identified gaps in Canadians understanding of arrest rights demonstrating the importance of ensuring effective communication of interrogation rights via police cautions. Importantly, these misconceptions about interrogation rights identified in Study 1 are issues that are not currently explained in standard Canadian arrest cautions. This poses a potential problem wherein Canadian detainees may be coming into an interrogative setting with misconceptions about their rights, then, the cautions that are supposed to inform of these rights are complex, difficult to comprehend, and lacking critical information on rights limitations. As it is important to best prepare and protect Canadians who face police interrogation during detainment, and ensure

comprehension and proper rights usage, one way this issue can be tackled is through the police cautions used to relay information.

STUDY 2

Police use written passages of text, called cautions, to relay information about the right to silence and right to counsel (Eastwood et al., 2010). When evaluating the comprehensibility (e.g., readability and complexity) of police cautions, researchers have relied on a set of research-based benchmarks for assessing a passage of text for complexity and levels of difficulty based on students at various reading ages (Eastwood et al., 2010; Rogers et al., 2008). Commonly used benchmarks include the *Flesh-Kincaid Grade Level Index* (FK) which uses sentence length and average number of syllables per word to provide a school grade level an individual would need to understand ~75% of the information (DuBay, 2004, Eastwood, Snook, & Chaulk, 2010; Rogers et al., 2008), the *Flesch Reading Ease* (FRE) which is calculated by evaluating the average number syllables per word and words per sentence to provide a score from 0 to 100, where higher scores represent increased reading ease (Stockmeyer, 2009), and the *Simple Measure of Gobbledygook* (SMOG), which calculates the number of polysyllabic (3 or greater syllables) words per sentence to provide the minimum grade level required to read and completely comprehend a passage of text (McLaughlin, 1969). Results from these evaluations of Canadian cautions has revealed that a majority are complex in both nature and content, and do not meet the Canadian Federal Governments advice that public documents should require no more than a grade eight reading comprehension level (Eastwood et. al, 2010; Social Security Tribunal of Canada, 2019).

Furthermore, research has repeatedly demonstrated that people have difficulty comprehending cautions in Canada (Chaulk et al., 2014; Eastwood & Snook, 2010; Eastwood et al., 2010). Although previous attempts to revise Canadian police cautions have marginally improved participant comprehension in highly controlled conditions (i.e., see Davis et al., 2011; Eastwood et al., 2010; Eastwood & Snook 2012; Moore & Gagnier, 2008), to date, no studies have revised a caution to add information about the specific nature, and limitations, of interrogation rights. Importantly, these limitations, which are not described in current Canadian police cautions, are where Canadians' have demonstrated the highest levels of misconceptions, as demonstrated in Study 1 results and past research (e.g., Patry et al., 2017).

The purpose of Study 2 was twofold. The first goal was to build upon past research by Eastwood and colleagues (2010; 2012) to modify a current widely used police caution (Royal Canadian Mounted Police caution, henceforth "RCMP") and create two new cautions: a "Simplified caution" which contains re-worked wording and structure based on readability and an "Informational" caution, which builds upon the Simplified version to provide information on key limitations to interrogation rights. The second goal was to evaluate whether this caution modification process would lead to a) improved comprehension and b) increased knowledge of interrogation rights.

Hypotheses

Based on previous research demonstrating that caution modification can increase comprehension (Eastwood & Snook, 2012; Snook et. al, 2014), and Study 1 results regarding Canadian's knowledge about interrogation rights, three hypotheses were proposed:

H1: First, it was expected that, compared to not hearing a caution at all, participants who hear any of the three caution versions (RCMP, simplified, or informational) would demonstrate higher levels of a) caution comprehension and b) knowledge of interrogation rights.

H2: Second, it was hypothesized that, compared to the no caution and RCMP caution conditions, participants who heard either modified caution (simplified or informational) would demonstrate the highest levels of a) caution comprehension and b) knowledge of interrogation rights.

H3: Lastly, it was hypothesized that, compared to the simplified caution participants who heard the informational caution would demonstrate a higher level of a) caution comprehension and b) interrogation rights knowledge.

Methodology

Canadian participants (N = 210) were again recruited utilizing the online platform Qualtrics. Prior to participation, all participants first gave consent and answered qualifying questions. Those who fell within the qualifying sample criteria were then randomly assigned to one of four conditions, to hear: no caution (n = 51), the RCMP caution (n = 55), the simplified caution (n = 51), or the informational caution (n = 53). Participants in any of the three caution conditions then completed measures of comprehension. Participants who did not hear a caution completed an equivalent measure. All participants then completed a series of measures designed to assess their knowledge of interrogation rights in practice (vignettes) and in general (true/false statements). Lastly, all participants completed the same demographic measures and were

then debriefed and thanked for their time. Materials, measures, and the sample are outlined and described below.

Participants

A sample of Canadian community members (N = 210) was collected using Qualtrics panel system. Participants were paid $6.25 CAD for completion, and no participants were removed from this study sample. All participants identified as being Canadian citizens who were not currently a student. Age of respondents ranged from 19 to 81, and the average age was M_{age} = 32 (*skew* = -.216, *kurtosis* = -1.05). For participant sex, the sample was evenly split (50% male, n = 105). Geographically, just over two thirds of participants reported living in urban areas across Canada (n = 161, 76.7%), with the remainder in rural areas (n = 49). Most (>90%) respondents reported currently residing in Ontario (n = 99, 47.1%), British Columbia (n = 33, 12.7%), Quebec (n = 31, 14.8%), and Alberta (n = 27, 12.9%). In terms of highest level of education achieved, respondents reported having a high school diploma or equivalency (n = 65, 31%), undergraduate degree (n = 62, 29.5%), college degree (n = 44, 21%), or post-graduate degree (n = 29, 13.8%).

For demographic variables that might influence participant responding across experimental conditions, the majority of respondents indicated they had no affiliation with legal system (n = 197, 94%), had not studied Canadian law or were unsure (n = 187, 89%), had not been read their rights by police, were unsure, or did not want to disclose (n = 173, 82.5%), and were not familiar with Canadian Charter of Rights and Freedoms or were unsure (n = 141, 67.1%). Those who did report having an affiliation with the legal

system (n = 13) were asked to specify further, and of the five sensical responses, there were three retired police/law enforcement officials and two lawyers.

Materials

Cautions. There were three different cautions explaining interrogation rights. The RCMP caution was obtained to use as the standardized caution in this study (Appendix H). The RCMP caution was chosen as it is the most far-reaching police force in Canada, and the caution is generally standardized across provinces (Eastwood et al., 2010). A "*Simplified*" caution (Appendix I) was created by modifying the original RCMP caution by reworking the wording (e.g., making language more accessible) and structure (e.g., how and when information is presented) based on previous successful caution modifications used by Eastwood et al., (2010). The Simplified caution also included added explanatory sentences, a method that showed the most promising results for improved listening comprehension (Eastwood & Snook, 2012; Snook et. al, 2014; Rubin & Rafoth, 1986). Next, an "*Informational*" caution (Appendix J) was designed to built upon the simplified version to newly incorporate added information about key interrogation rights limitations outlined in Canadian case law. The new information also had added follow-up explanatory sentences. The goal was to create a caution that balances length and amount of information without overloading the listener. Both the Simplified and Informational cautions were created to follow best practices in text readability and complexity based on the following benchmarks: a) Flesh-Kincaid Grade Level Index (FK; DuBay, 2004; Flesch, 1950) cut-off score of 6 (equivalent to a sixth-grade reading level), b) Flesch Reading Ease (FRE; Stockmeyer, 2009) score of 81-90

(very easy to understand material), and c) Simple Measure of Gobbledygook (SMOG; McLaughlin, 1969) cut off score of grade 8.

Caution Videos. To increase the ecological validity of the experiment and best simulate the actual procedure of police providing reading a caution to a detainee about their interrogation rights, videos were created by recording an "officer" reading each caution. The officer was a confederate dressed as a detective in a suit jacket and shirt, and not in a policing uniform. The same confederate appeared in all three recorded cautions, in the same lighting and background conditions, and wearing the same clothing. Each caution was read aloud at a rate of < 200 words per minute, which has been cited as optimal listening conditions (Carver 1982; Foulke, 1968; Jester & Travers 1966; Snook, et al. 2010). This methodology was chosen over simply providing the written cautions to participants as research evaluating caution delivery in Canada report that police chiefly read a suspect their interrogation rights aloud (Snook et al., 2010). Each video recorded caution also included closed-captioning text on the bottom of the video[3]. The RCMP caution was recorded at 42 seconds long, the modified caution at 1 minute and 2 seconds, and the informational caution at 1 minute and 33 seconds.

Measures

Aside from newly added measures of comprehension, all other measures used in Study 2 (open-ended, true/false statements, and vignettes) correspond directly to those used in Study 1. The remaining measures were presented in the same format and order for all participants.

[3] The decision was made to include the caution in written text at the bottom of the screen as this study was conducted online and it was possible that participants would either not have their sound on, or the volume would not be loud enough.

Consent and Qualification. Participants recruited into Study 2 were first given an informed consent form (Appendix A) and asked to answer three qualifying demographic questions to be included for participation: 1) Canadian citizenship, 2) student status, and 3) their age. Respondents were only able to participate if they identified as a non-student Canadian citizen over the age of 18.

Comprehension Measures. Comprehension was measured three ways. First, immediately following hearing a caution (RCMP, simplified, or informational), participants were asked a binary response question of "Do you understand your rights?" with a yes or no response choice. This measure of comprehension was used as it is the typical follow up question built into current Canadian police cautions (Eastwood et al., 2010). Second, comprehension was measured through a Likert-type follow up question for participants who heard a caution to report "How much of what you heard (about your rights) do you think you understood?" with response choice from 1 (reflecting none) to 5 (reflecting all). Third, comprehension was again measured, now with an open-ended/free recall method, by asking participants who heard a caution to list all of the rights they had just heard. Participants who did not hear a caution were asked to list all of the rights they believe Canadians have when facing a police interrogation. The same code book from Study 1 was used to assess free recall (Appendix B). Two coders (the main author and undergraduate research assistant from Study 1) were trained on the code book and coded all participant responses.

Knowledge Measures. Participants working knowledge of interrogation rights were assessed two ways. First, regardless of caution condition, all participants completed the same nine vignettes described and used in Study 1 to capture knowledge of arrest

rights in practice (see Appendix D). Second, and again regardless of caution condition, all participants were also asked to respond to the same 20 true/false statements about interrogation rights described and used in Study 1 (see Appendix E).

Perception Questions. To gain another perspective of how Canadians think about the assertion of interrogation rights, all participants were asked to respond to the same five perception questions described and used in Study 1 (see Appendix F). However, two newly added perception questions were included, utilizing the same Likert-type scale, to ask whether a) participants believe the general public trusts the police to fairly interrogate a suspect and b) if the participant themselves trust the police to fairly interrogate a suspect.

Demographics. Participants completed the same set of general demographics and legal knowledge/affiliation questions described and used in Study 1 (see Appendix G).

Results

Caution Content Comparison

Prior to experimentally testing the cautions with participants, they were evaluated on a number of measures. To assess how the language and complexity compared across the three cautions, protocol from two previous caution-evaluating studies was replicated (i.e., see Eastwood et al., 2010; Rogers et al., 2008). Each of the three cautions were measured on six measures of readability and complexity: the 1) number of total words, 2) number of words per sentence, 3) percentage of passive sentences, 4) Flesch Reading Ease (FRE; Flesch, 1948), 5) Flesh Kincaid grade level (Flesch, 1950), and the 6) Simple Measure of Gobbledygook (SMOG) index (DuBay, 2004; McLaughlin, 1969). Results of the content analyses indicate that both the simplified and simplified + additional

information cautions show improvements on all measures compared to the RCMP caution (see Table 6).

Overall, the Informational caution outperformed the other two cautions on four of the six measures, including: words per sentence, passivity, Flesch Reading Ease, and SMOG index. The Simplified caution outperformed both the Informational and RCMP cautions on the FK Grade level measure, and the RCMP had the best score for overall length as it was the shortest of the three cautions.

Table 6

Content Analysis of the Three Cautions across 6 Readability and Complexity Measures.

	RCMP			**Simplified**			**Informational**		
	RTS	**RTC**	**Total**	**RTS**	**RTC**	**Total**	**RTS**	**RTC**	**Total**
Words	44	76	120	90	105	195	139	144	283
Words/Sentence	14.7	25.3	20.0	11.2	17.5	13.9	11.6	16.8	14.2
Passivity	33%	33%	33%	25%	33%	28%	25%	25%	25%
FRE	76.5	56.4	65.2	83.5	89.9	87.7	84.9	89.2	87.8
FK Grade Level	6.2	11.6	9.1	4.3	5.1	4.4	4.2	5.2	4.5
SMOG Index			7.6		5.7	4.7	3.8	5.7	4.6

Note. RTS represents the Right to Silence. RTC represents the Right to Counsel.
Analyses for complexity and readability did not include text for "You are under arrest", which is included as the first sentence in all three cautions.
The SMOG Index test can only be conducted on a sample of text that contains >100 words.

Caution Comprehension

Caution comprehension was measured through two self-reported comprehension measures and individuals' scores of coded correct free recall of caution content. Frequency analyses, Chi-square tests, and Analyses of Variance were used to look for differences in comprehension across caution conditions.

Self-Report. The majority of participants who heard the RCMP caution (N = 55) responded "yes" to understanding their rights (n = 53, 96.4%). In line with this, when further prompted, the majority of participants who heard the RCMP caution indicated they understood all (score of 5, n = 23) or most (score of 4, n = 20) of the rights they heard, with fewer indicating they only understood half (score of 3, n = 6) or some (score of 3, n = 6). Similarly, the majority of participants who heard the Simplified caution (N = 51) responded "yes" to understanding their rights (n = 59, 98%). In line with this, the majority of participants who heard the Simplified caution indicated they understood all (n = 32) or most (n = 16) of the rights they heard, with fewer indicating they only understood some (n = 3). Lastly, the majority of participants who heard the Informational caution (N = 53) responded "yes" to understanding their rights (n = 50, 94.3%). This was followed by the majority of this group indicating they understood most (n = 222) or all (n = 21) of the rights they heard, with fewer indicating they only understood half (n = 6) or some (n = 4) of their rights. A Chi-square test of independence evaluating whether there were significant differences in the binary self-reported caution comprehension was not significant, X^2 (3, N = 159) = .98, p < .66.

Free Recall. To assess inter-rater reliability, Cohen's κ was used to determine if there was agreement between the two coders on the 11 correct and 2 incorrect comprehension recall items from the code book. Results demonstrated a range of moderate to full agreement between the two coders, κ = .534 to 1.00 (*p's* < .001). Results for inter-rater reliability for all 13 items of interest can be found in Table 7. Next, valence was reversed for the 2 incorrect items, and participants were given an overall comprehension score based on their free recall out of 11 (correct statements, incorrect statements, missing statements). Overall, average comprehension scores were low across all four conditions. For participants who did not hear a caution, average correct responses about rights were $M_{correct}$ = .88(*SD* = .886, range = -1 to 2). For participants who heard the RCMP caution, average correct free recall was $M_{correct}$ = 2.35 (*SD* = 1.61, range = 0 to 6). For participants who heard the Simplified caution, average correct free recall was $M_{correct}$ = 3.06 (*SD* = 1.99, range = 0 to 9). Lastly, for participants who heard the Informational caution, average correct free recall was $M_{correct}$ = 3.11 (*SD* = 2.25, range = 0 to 9). A One-Way Analyses of Variance (ANOVA) was used to evaluate whether comprehension across the 4 caution conditions significantly differed, but Levene's test was significant, $F(3, 206) = 10.04$, $p < .001$, indicating a violation of homogeneity of variances. As such, we used the obtained *Welch's* $F(3, 107.15) = 31.88$, $p < .001$, which indicated significant differences do exist on comprehension via free recall across the four caution conditions. Through Games Howell post hoc test for pairwise comparisons, it was determined that only Canadians who did not hear a caution demonstrated significantly lower correct comprehension than Canadians who heard the RCMP caution (*mean difference* = -1.48, *p* < .001, *95% CI* = -2.14 to -.82), Simplified caution (*mean*

difference = -2.18, $p < .001$, *Bootstrap CI* = -2.98 to -1.37), or Informational caution (*mean difference* = -2.23, $p < .001$, *Bootstrap CI* = -3.11 to -1.35). There were no significant differences across the RCMP, Simplified, or Informational caution conditions.

Table 7

Inter-rater Reliability for Coded Items Measuring Comprehension Through Free Recall.

	Coded Content	Accuracy	Cohen's κ
1.	Right to remain silent	Correct	.83***
2.	Statements made used as evidence against them	Correct	.82***
3.	Nothing to hope from promise / favours	Correct	. 98***
4.	Nothing to fear from threats or violence	Correct	.75***
5.	Police can continue questioning if person remains silent/invokes right to silence	Correct	.72***
6.	Remaining silent can't be held/used against you	Correct	.93***
7.	Right to a lawyer/counsel (speak/call/talk)	Correct	.69***
8.	Right to lawyer is immediate/before questioning	Correct	.54***
9.	Right to free legal aid / free lawyer / duty counsel	Correct	.78***
10.	Right to phone number to call free lawyer	Correct	.78***
11.	Right to apply for legal aid / lawyer in later court proceedings	Correct	.65***
12.	Right to have lawyer present during questioning	Incorrect	.81***
13.	Right to speak to/consult with a lawyer in person	Incorrect	1.00***

Note. $N = 210$ Canadian community participants. *** indicates $p < .001$, ** indicates $p < .01$. A full list of coded items can be found in Appendix B. Items were coded by the main author and a trained undergraduate research assistant.

Knowledge of Rights

Knowledge of rights was assessed for all participants via 1) 9 situational vignettes and 2) 20 true/false statements.

Situational Vignettes. To evaluate applied knowledge of interrogation rights, vignette responses were compared across the four-caution conditions. First, percentages of incorrect responses were tabulated for the nine vignettes – results of the frequencies analyses are displayed in Table 8. In five of the nine Vignettes, participants in at least one caution condition demonstrated higher than chance (>50%) levels of incorrect knowledge. Separate Chi-square tests of independence were conducted to assess whether there were significant differences in the amount of incorrect rights knowledge application on these five key vignette themes across the four-caution condition groups. A significance threshold of $p < .01$ was used to account for potential family wise error due to the number of Chi-square tests. For Vignette one, the Chi-square test of independence was significant, X^2 (3, N = 210) = 18.14, $p < .001$. Group comparisons, using z tests with Bonferonni adjusted p values, indicated that, compared to the other 3 caution conditions, Canadians who heard the Informational caution had significantly less incorrect applied knowledge about having a lawyer present during interrogation. For Vignette two, the Chi-square test of independence was also significant, X^2 (3, N = 210) = 18.28, $p < .001$. Group comparisons, using z tests with Bonferonni adjusted p values, indicated that Canadians who heard the informational caution had significantly less incorrect applied knowledge for requesting a second counsel consultation compared to the RCMP and Simplified caution conditions, but not the No Caution condition. For Vignette three, the Chi-square test of independence was also significant, X^2 (3, N = 210) = 17.12, $p < .001$.

Group comparisons, using z tests with Bonferonni adjusted *p* values, indicated that Canadians who heard the informational caution had significantly less incorrect applied knowledge about the ability to consult with counsel of choice compared to the RCMP and Simplified caution conditions, but not the No Caution condition. For Vignette four, the Chi-square test of independence was significant, X^2 (3, N = 210) = 22.73, $p < .001$. Group comparisons, using z tests with Bonferonni adjusted *p* values, indicated that Canadians who heard the informational caution had significantly less incorrect applied knowledge for invoking the right to silence compared to the other three caution conditions. Lastly, for Vignette five, the Chi-square test of independence was significant, X^2 (3, N = 210) = 22.73, $p < .001$. Group comparisons, using z tests with Bonferonni adjusted *p* values, indicated that Canadians who did not hear a caution had significantly more incorrect applied knowledge regarding promises of leniency compared to the Informational and Simplified cautions, but not the RCMP caution. Those who heard the RCMP caution had significantly more incorrect applied knowledge regarding promises of leniency compared to the Informational and Simplified cautions.

Table 8

Situational Vignette Frequencies for Incorrect Knowledge of Canadians' Interrogation Rights.

		Incorrect Responses			
	Vignette Theme	RCMP (n = 55)	Simplified (n = 51)	Informational (n = 53)	None (n = 51)
1.	Ask to have lawyer present (after initial phone call)	83.6%	84.3%	56.6%	86.3%
2.	Denial of second consult with lawyer	61.8%	58.8%	24.5%	49%

3.	Second consult with lawyer (of choice, after using free legal aid)	61.8%	47.1%	22.6%	43.1%
4.	Invoke right to silence, police continued questioning	58.2%	52.9%	17%	51%
5.	Promises of sentence leniency if talk to police	32.7%	19.6%	20.8%	56.9%
6.	Threats (of worse sentence) if did not talk to police	14.5%	17.6%	9.4%	29.4%
7.	Denial of initial consult with lawyer	21.8%	21.6%	35.8%	21.6%
8.	Denial of free legal aid	14.5%	11.8%	9.4%	25.5%
9.	Forced to answer questions prior to consulting lawyer	12.7%	17.6%	20.8%	11.8%

Note. N = 210 Canadian community participants. Full vignette details can be found in Appendix D. RTC represents right to counsel. RTS represents right to silence.

True/False Statements. The true/false statements regarding the rights to silence and counsel were recoded to ensure correct valence of response and then summed to give each participant a score out of 20. Higher scores indicated more correct knowledge of interrogation rights (see Table 9). The average amount of correct knowledge in the no caution control condition was M = 13.14 (SD = 1.64). A One-Way ANOVA was used to evaluate whether total scores of interrogation rights knowledge (out of possible 20) across the 4 caution conditions significantly differed. Results of the analyses were significant, $F(3, 206) = 6.83$, $p < .001$) indicating Canadians in different caution conditions performed differently on the 20 measures. The effect size was small but significant, $\eta 2 = .091$ [CI = .022 to .161], and Levene's test was not significant, $F(3, 206) = .761$, $p = .517$, indicating no violation of homogeneity of variances. Through Tukey's post hoc test for multiple comparisons, it was determined that Canadians who heard the

Informational caution (M = 14.55, SD = 1.94) demonstrated significantly more correct rights knowledge ($p < .001$, *Bootstrap CI* = -2.30 to -.47) than Canadians who heard the RCMP caution (M = 13.16, SD = 1.85) or who did not hear a caution ($p < .001$, *Bootstrap CI* = -2.35 to -.46). There were no significant differences between the Informational caution and the Simplified caution (M = 13.78, SD = 1.95). There were no significant mean differences in correct rights knowledge between Canadians who heard the Simplified caution, RCMP caution, or No caution. To evaluate whether it was a specific right (counsel or silence) that was driving this difference, two additional ANOVAs were conducted. For the right to counsel questions (total of 9), results of the One-Way ANOVA were significant, $F(3, 206) = 5.27$, $p = .002$), indicating differences in the amount of correct rights knowledge across the four caution conditions. The effect size was small but significant, $\eta 2 = .071$ [*CI* = .012 to .136], and Levene's test was not significant, $F(3, 206) = .893$, $p = .446$, indicating no violation of homogeneity of variances. For the right to silence questions (total of 11), results of the One-Way ANOVA were significant, $F(3, 206) = 4.94$, $p = .002$), indicating differences in the amount of correct rights knowledge across the four caution conditions. The effect size was small but significant, $\eta 2 = .067$ [*CI* = .010 to .131], and Levene's test was not significant, $F(3, 206) = .299$, $p = .826$, indicating no violation of homogeneity of variances. Separate Tukey's post-hoc tests were used to further assess differences across caution conditions for both the right to silence and right to counsel. Results are outlined below in Table 9.

Table 9

True/False Statement Averages of Correct Knowledge of Canadians' Interrogation Rights Across Caution Conditions.

	RCMP		Simplified		Informational		No Caution	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
RTC	5.85_{a}	1.11	$6.37_{a,b}$	1.02	6.68_{b}	1.17	6.35_{ab}	1.06
RTS	$7.31_{a,b}$	1.29	$7.41_{a,b}$	1.40	$7.87_{,b}$	1.24	6.88_{a}	1.32
Total	13.16_{a}	1.85	$13.78_{a,b}$	1.95	14.55_{b}	1.94	13.14_{a}	1.64

Note. N = 210 Canadian community participants. RTC represents right to counsel. RTS represents right to silence. There were 20 statements in Total, 11 regarding RTC and 9 regarding RTS. Means not sharing subscripts differ significantly by $p < .01$.

Perceptions of Interrogation Rights

Lastly, Canadians' perceptions of interrogation rights were analyzed. As perceptions were not an experimental outcome of interest, no differences were hypothesized across conditions and results were analyzed for the whole sample. Results of frequency analyses regarding the perception of assertion of arrest rights questions were somewhat different than expected based on those seen in Study 1; in general, Canadians seem to be mixed in their views of suspects (either guilty or innocent) asserting their rights. First, focusing on guilty suspects requesting to speak to a lawyer when facing police questioning, most participants disagreed that guilty suspects were more likely to do this than innocent suspects (M = 3.22, SD = 1.78, *skewness* = .256, *kurtosis* = -1.07). Specifically, 51.4% disagreed (n = 51 strongly disagreed, n = 38 disagreed, and n = 19 somewhat disagreed), while 23.8% neither agreed or disagreed (n = 50), and 24.8% agreed (n = 6 strongly agreed, n = 20 agreed, and n = 26 somewhat agreed). Second, when asked whether guilty suspects would be more likely than innocent suspects to

request to have a lawyer present during police questioning (*M* = 3.36, *SD* = 1.76, *skewness* = .09, *kurtosis* = -1.07), most participants again disagreed. Specifically, 46.2% disagreed (*n* = 47 strongly disagreed, *n* = 33 disagreed, and *n* = 17 somewhat disagreed), while 25.7% neither agreed or disagreed (*n* = 54), and 28% agreed (*n* = 7 strongly agreed, *n* = 16 agreed, and *n* = 36 somewhat agreed). However, when asked whether guilty suspects were more likely than innocent suspects to remain silent during police questioning, results were more mixed (*M* = 3.69, *SD* = 1.78, *skewness* = -.05, *kurtosis* = -.91). Specifically, 40% disagreed (*n* = 38 strongly disagreed, *n* = 21 disagreed, and *n* = 25 somewhat disagreed), while 27.1% neither agreed or disagreed (*n* = 57), and 32.9% agreed (*n* = 12 strongly agreed, *n* = 22 agreed, and *n* = 35 somewhat agreed).

Regarding innocent suspects asserting rights, when participants were asked if an innocent suspect does not need to contact a lawyer during police questioning (*M* = 2.08, *SD* = 1.45, *skewness* = 1.48, *kurtosis* = 1.64), the large majority (82.9%) disagreed (*n* = 100 strongly disagreed, *n* = 48 disagreed, and *n* = 10 somewhat disagreed). Only 10% neither agreed or disagreed, and only 7.1% agreed (*n* = 3 strongly agreed, *n* = 3 agreed, and *n* = 5 somewhat agreed). However, when asked whether an innocent suspect should cooperate with police and answer questions, participants were less sided in their beliefs (*M* = 3.70, *SD* = 1.84, *skewness* = .06 *kurtosis* = -.98). Specifically, 41.8% disagreed (*n* = 36 strongly disagreed, *n* = 28 disagreed, and *n* = 24 somewhat disagreed), while 24.3% (*n* = 51) neither agreed or disagreed, and the remaining 33.8% agreed (*n* = 17 strongly agreed, *n* = 21 agreed, and *n* = 33 somewhat agreed).

Focusing on trusting police to interrogate people fairly, most participants agreed that the general public trusts the police to fairly interrogate a suspect (*M* = 3.94, *SD* =

1.68, *skewness* = -.16, *kurtosis* = -.86). Specifically, 41.4% agreed (*n* = 11 strongly agreed, *n* = 27 agreed, and *n* = 49 somewhat agreed), while 21.4% neither agreed or disagreed (*n* = 45), and 37.1% disagreed (*n* = 21 strongly disagreed, *n* = 29 disagreed, and *n* =28 somewhat disagreed). These results were reflected when the majority of participants also agreed that they personally trust police to interrogate people fairly (*M* = 3.92, *SD* = 1.76, *skewness* = -.12, *kurtosis* = -.87). Specifically, 39.1% agreed (*n* = 16 strongly agreed, *n* = 24 agreed, and *n* = 42 somewhat agreed), while 25.7% neither agreed or disagreed (*n* = 54), and 35.2% disagreed (*n* = 26 strongly disagreed, *n* = 28 disagreed, and *n* =20 somewhat disagreed).

Discussion

Building upon previous work (e.g., Davis et al., 2011; Eastwood et al., 2010; Eastwood & Snook 2012; Moore & Gagnier, 2008), Study 2 aimed to modify a Canadian police caution to improve Canadian's comprehension and knowledge of their interrogation rights. Adding to the program of research work aimed to better improve police cautions and inform Canadians about their interrogation rights privileges and limitations, this work is of the first to modify a caution to be more Informational. The two cautions modified for Study 2 using previously promising methods (e.g., Eastwood et al., 2010) were compared to the RCMP caution on multiple readability measures. Results indicate that both demonstrate improvement over the RCMP caution, in that both the Simplified and Informational caution have reduced complexity (e.g., lower SMOG, FK grade level, and passivity) scores, and increased potential for comprehensibility (e.g., higher Flesch Reading Ease scores). On scores of passage length, however, both the Simplified and Informational cautions fall short as they are longer than the RCMP

caution. After evaluating the cautions themselves, it was necessary to test how the different cautions impacted comprehension and knowledge, as compared to base levels of knowledge and no caution, and this was done through an online study with Canadian participants.

Comprehension

There were three expected hierarchical hypotheses of Study 2, all related to performance on measures of knowledge and comprehension across caution conditions. Results from Study 2 generally supported all three hypotheses, however, to a lesser degree when looking at improvements of Canadians' caution comprehension compared to improvements in knowledge of interrogation rights. First, it was expected that all Canadian participants who heard any caution (RCMP, simplified, or informational) would outperform those who did not hear a caution on measures of caution comprehension and knowledge of interrogation rights, and this was partially supported. Compared to Canadians' not hearing a caution, participants who heard any of the three caution versions performed better on measures of knowledge about interrogation rights and free recall measures of comprehension. However, it should be noted that almost all Canadians who heard a caution self-reported comprehending their rights, but comprehension was not reflected in free-recall measures, which were low for all. As such, although Canadians hearing the Informational caution demonstrated the highest average comprehension as measured via free recall, followed by those hearing the Simplified caution, then finally the RCMP caution, these differences were not significant. Thus, neither hypothesis two nor three received full support.

Knowledge

When looking at the impact of the different caution conditions on measures of interrogation rights knowledge, however, results more closely align to what was expected. First, hypothesis 1 again received support: compared to not hearing a caution at all, Canadians who heard any of the three caution versions (RCMP, simplified, or informational) performed better on measures of knowledge about interrogation rights and free recall measures of comprehension. Furthermore, hypothesis 2 was now partially supported: participants who heard either modified caution (Simplified or Informational) demonstrated the higher levels knowledge compared to the RCMP caution. Lastly, hypothesis 3 now received partial support: participants who heard the Informational caution demonstrated higher scores of correct knowledge on average compared to the Simplified caution, however, this was not significant across all measures of knowledge. For performance on key items that are most closely related to the limitations regarding the right to silence and right to counsel, the Canadians who heard the Informational caution did significantly outperform those who heard the Simplified caution.

Perceptions

Interestingly, when we look at the perceptual questions regarding the utilization of the right to silence and right to counsel, Canadian participants in Study 2 seem to be somewhat less in favour of fully utilizing rights when facing police interrogation compared to those in Study 1. This was particularly evident when asked to compare guilty suspects invoking rights compared to innocent suspects. On at least one item, participants demonstrate strong disagreement: that innocent suspects do not need to contact a lawyer when being questioned by police. This indicates that Canadians have

some level of understanding of the importance of the right to counsel for detainees when facing police interrogation. However, participants were more diverse in their perceptions of whether innocent suspect should cooperate with police and answer questions to prove their innocence. This may demonstrate a lack of understanding that statements made during police questioning can and will be used against a suspect. As innocence and cooperation with police investigators during questioning have been cited as a potential factor related to false confessions (Kassin, 2005), this finding is troubling. Indeed, real suspects often waive their rights and submit to questioning (Leo, 1996) and research using experimental mock-interrogations has established that innocent people are more likely to waive their Miranda rights (Kassin & Norwick, 2004).

As noted by Kassin (2005), a few of possible reasons may influence this phenomenon of innocence putting innocents at risk, one being the Belief in a Just World (Lerner, 1980). It could be that Canadians in Study 2 had higher levels of Belief in a Just world compared to those in Study 1, however, it remains unknown as this was not something directly measured. A second reason noted by Kassin (2005) is the "illusion of transparency," (Gilovich et al., 1998; Miller & McFarland, 1987) wherein suspects may overestimate investigators' ability to be cognizant of their true thoughts, emotions, and thus, innocence. Again, with limited information collected from Canadian participants, these questions are not able to be answered from the present research.

Implications and Limitations

Overall, these results offer important support that the fact that knowledge scores were improved for those Canadians who heard the Informational caution may seem intuitive – if we provide people with the information, they should be able to answer

questions about it. Although this seems rudimentary, it is nonetheless important when thinking of the implications that enhanced knowledge could have as a protective factor for Canadian detainees. From an advocacy standpoint, increasing even one person's accurate knowledge of interrogation rights through increasing comprehension is providing a benefit.

This experiment was limited for a few reasons. First, the study was conducted online, and the cautions were therefore tested under optimal conditions which do not accurately represent the reality that detainees face when being read their rights prior to police interrogation. Second, the study was also a low-stakes paradigm. Canadians were not implicated in a crime and were not highly incentivized to pay attention to the caution or to respond and provide as much detail as they could when answering questions. This also limits the ecological validity of the research. Therefore, to ensure that the differences seen across knowledge of interrogation rights and caution comprehension in this study would remain under real-life conditions of utilizing or waiving rights when facing police interrogation, it is important to test them further in a more ecologically valid setting.

STUDY 3

Police interrogations, and particularly those that follow the Reid methodology, are inherently designed to overcome detainee resistance and elicit a confession by making a detainee feel isolated, anxious, and desperate to escape (Kassin 2005; Kassin et al., 2010; Kassin & McNall 1991). People are therefore likely to experience stress or duress when they are facing interrogation and read their rights by police (Department of Justice Canada, 2004; Gudjonsson, 2003; Leo, 2009; Rogers et al., 2010). Psychological experts

have argued that the experience of facing a real-life interrogation likely impedes comprehension of interrogation rights (Abramovitch et. al, 1993). There is some evidence for this: the experience of stress has been shown to negatively impact comprehension in general, and this extends to comprehension of police cautions (Davis et al., 2011; Kassin & Norwick, 2004; Rogers et. al, 2011; Scherr & Madon, 2012).

Reasons for this impact of stress on comprehension may be found in theories regarding processing efficiency (Eysenck, 1982, 1992, 1997), wherein it has been hypothesized that stress on an individual expends their valuable cognitive resources necessary for efficient cognitive functioning. Through this extra expenditure of cognitive resources, stress thus compromises an individual's working memory system efficacy (Derakshan & Eysenck, 1998; MacLeod & Donnellan, 1993). Working memory refers to the ability to temporarily store information and constitutes a central executive function that utilizes two sub-systems and stores verbal information (through a phonological loop) and spatial information (through a visuo-spatial 'sketchpad'; Baddeley, 1983; 2007). Working memory is necessary for comprehension (Baddeley, 1992), and thus, caution comprehension may be negatively impacted through this sequence initiated by stress.

Though Study 2 showed promising outcomes for the utilization of modified police cautions, the real-life applicability of these results are limited due to the optimal laboratory settings inherent in the online methodology and low-stakes experimental design. Indeed, psychological scientists have criticized other previous studies evaluating modified cautions and comprehension for this very reason – in that they lack real-world validity (Rendall & MacMahone, 2021). Part of this criticism stems from the argument that caution comprehension may be even lower in non-optimal laboratory setting

(Abromavitch et. al, 1995; Eastwood et al., 2014), where experienced stress is much higher. Researchers have acknowledged this potential impact of stress and conducted research into caution comprehension with student samples using more realistic methodologies, including accusing a participant of, or tasking them with, committing a crime (Rogers et. al, 2011; Scherr & Madon, 2012). Their results support this argument: comprehension, measured through free recall, was significantly low in these mock-interrogative settings (Rogers et. al, 2011; Scherr & Madon, 2012).

As such, the aim of Study 3 was to further assess the cautions from Study 2 on their ability to improve knowledge and comprehension of Canadian interrogation rights within a higher-stakes in-person mock-interrogation paradigm. Specifically, it was important to test whether the Informational or Simplified cautions still demonstrated beneficial impacts to knowledge of interrogation rights over the RCMP caution. The purpose of conducting an in-person mock interrogation with students is to simulate the potential stress detainees experience when hearing their arrest rights while knowing they face an interrogation. The aim of this methodology was to increase ecological validity of the experiment.

Hypotheses

Although the stressful situation of the mock-interrogation may influence comprehension, the two main hypotheses of Study 3 sought to re-test hypothesized results from Study 2:

H1: First, it was expected that, compared to the RCMP and Simplified cautions, participants who heard the Informational caution would demonstrate the highest levels of comprehension and knowledge.

H2: Second, it was hypothesized that, compared to the RCMP caution condition, participants who heard the Simplified caution would demonstrate the higher levels of comprehension and knowledge.

Methodology

Study 3 utilized an in-person methodology to test caution efficacy in practice within a mock-interrogation paradigm. All participants were recruited to the study under the guise of the focus being about providing convincing alibis. The purpose of using a mock-interrogation posed to collect an alibi was twofold. First, the mock-interrogation itself was designed to elicit moderate levels of stress in participants to simulate the real-life experience people being detained, read their rights, and being focused on what questions they may be asked or trying to remember where they were on a specific date and time. Stress was induced by incorporating components of the Trier Social Stress Test (Kirschbaum et al., 1993) into the mock-interrogative paradigm and by utilizing a physical EDA stress-measuring tool intended to give the perception of being a "lie detection" machine. Second, under the guise of the study being about an alibi, the focus was taken away from the caution that participants were being read by the investigator. Participants did not know they would be answering questions about their comprehension and knowledge of interrogation rights. Again, this was designed to best replicate a real-life scenario where peoples' minds may be pre-occupied in thinking of the reasoning they are being detained or in trying to recall/prepare their real-life alibi. Lastly, participants were thanked and debriefed upon completion of the study (see Appendix M). In this debrief, we revealed the true nature of the study to the participants and explained the reasoning for the deceptiveness of methodology used.

Participants

Recruitment. A sample of Ontario Tech University undergraduate students (N = 90) was collected through the universities SONA bonus point system. Students were provided 1 bonus point toward an eligible course grade of their choosing for participating in this study. Participants signed up online through the SONA system (https://ontariotechu.sona-systems.com) and self-selected an available time slot to participate. No participants opted to withdraw from the study, however, it should be noted that no participants were forced to respond to any questions.

Age and Sex. Age of respondents ranged from 18 to 44, and the average age was M_{age} = 21.3 (SD = 4.83), but the most common age was *Mode* = 18, and age was not normally distributed across the sample (*skew* = 2.94, *kurtosis* = 10.1). For participant sex, the majority of the sample indicated they were female (n = 54, 60%), with the remaining indicating they were male (n = 35), and one participant did not answer this question. The majority of the sample (n = 88, 98.9%) indicated they were currently a student; 2 participants did not provide a response to their student status.

Citizenship. Of the student sample, 88.9% indicated they were Canadian Citizens (n = 80), with the remaining nine respondents indicating their citizenship was from Africa (n = 1), China (n = 1), Guatemala (n = 1), Jamaica (n = 1), India (n = 1), Nigeria (n = 1), Romania (n = 1), Saudi Arabia (n = 1), and the United Kingdom (n = 1). One participant did not provide a response about their citizenship. Geographically, most participants reported currently living in urban areas (n = 81, 90%), and having spent most of their life living in urban areas (n = 79, 87.8%). All participants were currently residing in Ontario (n = 89, 98.9%), with one participant not responding to this question.

Law-Related Demographics. For demographic variables that might influence participant responding across experimental conditions, most respondents indicated they had no affiliation with legal system (n = 80, 88.9%), had not studied Canadian law or were unsure (n = 54, 60%), and had not been read their rights by police, were unsure, or did not want to disclose (n = 84, 93.3%). One participant did not respond to any of these questions. Those who did report having an affiliation with the legal system (n = 9) were asked to specify further, and of the six responses, participants reported having family (parents, cousins) working in law enforcement (n = 2), a parent being a lawyer (n = 1), or themselves working with victim services (n = 1). The remaining two answers were related to profession (nursing, n = 1) or life experience (n = 1). Lastly, many participants (61.1%, n = 55) did report being familiar with the Canadian Charter of Rights and Freedoms, with the remainder reporting no familiarity (n = 17) or being unsure (n =17). To ensure this would not impact participant responding, a Chi-square 3x3 contingency table indicated that there were no significant differences in the number of participants with familiarly of the Charter across the three conditions, X^2 (4, N = 89) = 6.12, p = .190.

Materials

Consent. Prior to participating in any part of the mock-interrogation paradigm, participants were given an informed consent form which explained the purpose and steps of the experiment, the benefits and risks of the research, withdrawal process, and process of what is done with participant information (see Appendix J). The only eligibility criteria for Study 3 were that participants were current Ontario Tech students over the age of 18.

Cautions. As the purpose of Study 3 was to further test whether the modifications made to a Canadian police caution in Study 2 (simplified wording and structure, explanatory sentences, additional information) were still effective in a more ecologically valid setting, no changes to the cautions were made. The three cautions are previously described in the Study 2 Materials section, and can be found in their respective appendices: for the RCMP caution see Appendix H, for the Simplified caution see Appendix I, and for the Informational caution see Appendix J.

Location. Study 3 was conducted in the basement of the Education Building on the Ontario Tech University downtown Oshawa campus (11 Simcoe Street North, Downtown Oshawa, ON, Canada) in Dr. Eastwood's laboratory. Within the laboratory, there is a waiting room, and multiple enclosed rooms containing desks, chairs, and no windows. The waiting room was utilized to greet participants. A secondary room, fitted with a long table and two chairs, with no windows, was used as the "interrogation" room. A third room, fitted with cubicles and multiple segregated working computers, was also used for participants to complete the measures used in this study following the mock-interrogation.

Hardware. As Study 3 took place in person, there were multiple types of physical hardware used. Within the "interrogation" room, there was a working camcorder video recorder used to record each participant alibi interaction. A non-invasive Electrodermal Activity (EDA) physical measurement machine (BIOPAC) was used to wirelessly measure participant skin conductance level (SCL) and skin conductance response (SCR) activity due to stress (https://www.biopac.com/application/electrodermal-activity/). This tool was used to simulate a lie-detection machine, such as a polygraph. There was also a

Surface Pro computer (belonging to Dr. Eastwood) was set up and connected to the AcqKnowledgeTM software program required for wireless EDA measurement. Informed consent was gathered via printed paper copies. Additionally, the "interrogator" was provided with a pen, clipboard, physical paper versions of the caution, a notepad, and stopwatch timer. In the measuring room, Windows desktop computers were set up in cubicles with access to the internet and the Qualtrics survey page with study measures.

Measures

Aside from a newly added measure of self-reported stress, the majority of measures for Study 3 directly correspond to those used in Study 2 and Study 1 (comprehension measures and knowledge measures). Some measures from Study 2 were not utilized in Study 3 due to the concern over participant fatigue (e.g., additional perception questions, questions regarding knowledge sources); measures used in Study 3 focused on assessing key outcomes of interest.

Stress. As part of the purpose of using the experimental mock-interrogation paradigm for Study 3 was to model real life interactions where people may be experiencing stress while being read their rights, it was important to measure if the paradigm worked. Participants were asked to self-report "Do feel that giving your alibi to the interviewer just now was stressful?" on a Likert-type scale from 1 (representing "no - not at all stressful") to 7 (representing "yes – very stressful"). Physical measures of stress were not recorded via the BIOPAC EDA lead, as it was included in the study as a methodological design component[4].

[4] See limitations section for further explanation.

Comprehension Measures. Comprehension was measured two ways. First, immediately following hearing a caution (RCMP, simplified, or informational), participants were asked verbally "Do you understand your rights?" and responded with a yes or no verbal answer. Second, comprehension was measured through an open-ended/free recall method, by asking participants who heard a caution to list all of the rights they had just heard. The same coding guidebook was used to assess this free recall measure of comprehension (Appendix B). Two coders (the main author and the same undergraduate research assistant who coded Study 1 and Study 2) coded all participant responses.

Knowledge Measures. Participants working knowledge of interrogation rights were assessed two ways. First, participants completed the same nine vignettes described and used in Study 1 to capture knowledge of arrest rights in practice (see Appendix D). Second, participants were also asked to respond to the same 20 true/false statements about interrogation rights described and used in Study 1 (see Appendix E).

Perception Questions. To gain another perspective of how Canadians think about the assertion of interrogation rights, all participants were asked to respond to the same 5 perception questions described and used in Study 1 (see Appendix F).

Demographics. Participants completed the same set of general demographics and legal knowledge/affiliation questions described and used in Study 1 (see Appendix G).

Procedure

Greeting. Students first entered the laboratory waiting room, were greeted by the main author or RA1[5], and were given the informed consent form to read over. The greeter made themselves available to answer any questions regarding consent. Once any participant questions were answered and consent was provided by the participant, the greeter further explained the steps of the study. The greeter first told the participant the study was focused assessing convincing alibis, and that the student had been implicated in a theft of a laptop near the university campus two weeks ago (to the current day). The greeter then explained that a police "investigator" wanted to speak to them about the crime in question and obtain their alibi about their whereabouts. The greeter then brought the participant into the interrogation room and asked them to sit in a specific chair that was placed to face the interrogator and recording camera. At this point, RA1 attached the BIOPAC EDA lead to the participants wrist and hand (see Appendix L for an anonymized image of a real student participant with the attached EDA device). The greeter then left the room.

Alibi Construction. As part of the study being about providing a "convincing alibi", participants were told they would be able to win a $50 Visa gift card if they successfully convinced the investigator of their alibi. In reality, all participants were entered into the gift card draw regardless of performance. Participants, now in the interrogation room, were instructed by RA1 to come up with an alibi of where they were

[5] Three research assistants aided in running Study 3. RA1, an undergraduate female student, greeted all participants[5]. This RA also coded all responses across all 3 studies. RA2 and RA3, two undergraduate male students, alternated conducting each "interrogation".

when the crime in question (theft of laptop) took place. RA1 informed the participants that they had five minutes to come up with their alibi before the interrogator would enter the room to speak to them. RA1 then left the participant alone in the interrogation room to prepare for five minutes and timed this exactly using a stopwatch to ensure consistency in prepare time across all student participants.

Cautioning. After the five-minute alibi preparation stage, the "investigator" then entered the interrogation room, greeted the participant, turned on the recording camera and activated the AcqKnowledgeTM software for the wireless EDA. The "investigator" was one of two trained research assistants (RA2 and RA3) who were dressed as a police investigator (in slacks and a dark-coloured suit-style jacket). As participants were run singularly at a time, the "investigators" alternated wearing the same suit jacket to keep their appearance consistent. The investigator then verbally delivered one of the three cautions (RCMP, Simplified, or Informational) in a randomized manner to participants to simulate the typical police procedure before interrogation (see Snook et al., 2010). The cautions were the same ones utilized in Study 2 with no changes to their content (see Appendices H, I, and J). Cautions were verbally delivered to participants by the RA2 or RA3 at a speech rate of < 200 words per minute for optimal listening comprehension (Carver 1982; Foulke, 1968; Jester & Travers 1966; Snook et al., 2010). The investigators were provided with printed out versions of the three cautions and read them aloud verbatim to participants to ensure consistency.

Mock-Interrogation Paradigm. Following the cautioning, a brief, non-confrontational mock-interrogation took place to obtain the participant's "alibi". The mock-interrogation was guised as an alibi study and incorporated components of the Trier

Social Stress Test (Kirschbaum et al., 1993) to induce a level of moderate stress in participants. The Trier Social Stress Test, originally designed to elicit a moderate stressful response in participants in clinical settings, typically follows a 10-minute anticipation phase and a 10-minute test phase, including a five-minute free speech phase (Kirschbaum et. al, 1993). Within the testing phase of the original Trier Social Stress Test, participants would often complete a moderately difficult arithmetic task under the watch of the administrator (Allen et al., 2016). For this experiment, participants were given a five-minute prep phase to come up with an alibi (described above), then asked to relay their alibi as convincingly as possible in five minutes to the investigator while being video recorded. The investigator timed the participant as they gave their alibi with the stopwatch. Following the Trier Social Stress Test methodology, the investigator gave zero verbal confirmation or facial/bodily feedback to the participants during the five-minute alibi presentation (Allan et al., 2016). If the participant provided their alibi in full before the five minutes were up, the investigator was instructed to say "You have X minutes remaining, please continue explaining your alibi" to encourage to the participant to continue for the entire five-minute time frame for consistency. In some instances, where the participant remained unresponsive, the investigator would ask something more specific about their alibi, such as "You have X minutes remaining, please tell me more about…", or both parties would sit in silence until the five minutes was up. For each entire interaction, the investigator remained stoic and did not provide feedback to any participants. After the five-minute alibi collection, the investigator thanked the participant, removed their EDA finger/wrist lead, and led them back to a seat in the waiting room. RA1 then rejoined the participant and led them to a secondary room with a

computer prepared to record their responses to the measures of stress, comprehension, knowledge, and perceptions described above.

Results

Stress

Participant self-reported stress was evaluated utilizing frequency analyses. All participants reported experiencing moderate levels of stress. Specifically, participants who heard the RCMP caution (n = 30) reported average stress level of M_{stress} = 3.53, (SD = 1.85, *skewness* = -.09, *kurtosis* = -.85). Those who heard the Simplified caution (n = 30) reported an average stress level of M_{stress} = 4.13, (SD = 1.96, *skewness* = -.19, *kurtosis* = -1.29). Lastly, participants who heard the Informational caution (n = 30) reported an average stress level of M_{stress} = 3.94, (SD = 1.68, *skewness* = -.16, *kurtosis* = -.51). To ensure no confounding levels of stress were experienced by participants across the three caution conditions, a One-Way ANOVA was conducted. Results indicated there were no significant differences in participant reported stress across the three caution conditions, $F(2, 87) = 1.44$, $p = .243$).

Caution Comprehension

Caution comprehension was assessed through 1) verbal self-reported comprehension and 2) amount of correct open-ended free recall of caution content.

Self-Report. All participants in this study verbally indicated to the interrogator that, “yes”, they understood their rights. As such, no comparisons were able to be made across the three caution conditions.

Free Recall. To assess inter-rater reliability, Cohen's κ was used to determine if there was agreement between the two coders on the 11 correct and two incorrect

comprehension recall items from the code book. Results demonstrated a range of moderate to full agreement between the two coders, $\kappa = .58$ to 1.00 (*p's* < .001). Results for inter-rater reliability for all 13 items of interest can be found in Table 10. Next, valence was reversed for the 2 incorrect items, and participants were given an overall comprehension score based on their free recall out of 11 (correct statements, incorrect statements, missing statements). Overall, average comprehension scores were low across all three conditions. For participants who heard the RCMP caution, average correct free recall was $M_{correct} = 2.20$ (*SD* = 1.25, range = 0 to 5, *skew* = .40, *kurtosis* = .19). For participants who heard the Simplified caution, average correct free recall was $M_{correct} = 2.43$ (*SD* = 1.65, range = 0 to 6, *skew* = .87, *kurtosis* = 2.07). Lastly, for participants who heard the Informational caution, average correct free recall was $M_{correct} = 3.11$ (*SD* = 1.21, range = 1 to 6, *skew* = 1.00, *kurtosis* = .88). Results from a One-Way ANOVA were not significant, $F(2, 87) = 1.29$, $p = .280$, indicating no significant differences in comprehension, measured via free recall, across caution conditions.

Table 10

Inter-rater Reliability for Coded Items Measuring Comprehension Through Free Recall.

	Coded Content	**Accuracy**	**Cohen's κ**
1.	Right to remain silent	Correct	.89***
2.	Statements made used as evidence against them	Correct	.78***
3.	Nothing to hope from promise / favours	Correct	. 58***
4.	Nothing to fear from threats or violence	Correct	.88***
5.	Police can continue questioning if person remains silent/invokes right to silence	Correct	1.00***
6.	Remaining silent can't be held/used against you	Correct	.65***
7.	Right to a lawyer/counsel (speak/call/talk)	Correct	.66***
8.	Right to lawyer is immediate/before questioning	Correct	.8.4***

9.	Right to free legal aid / free lawyer / duty counsel	Correct	.91***
10.	Right to phone number to call free lawyer	Correct	1.00***
11.	Right to apply for legal aid / lawyer in later court proceedings	Correct	.79***
12.	Right to have lawyer present during questioning	Incorrect	.94***
13.	Right to speak to/consult with a lawyer in person	Incorrect	--

Note. N = 212 Canadian community participants. *** indicates $p < .001$, ** indicates $p < .01$. A full list of coded items can be found in Appendix B. Items were coded by the main author and a trained undergraduate research assistant.

Knowledge of Rights

Knowledge of rights was assessed via 1) 9 situational vignettes and 2) 20 true/false statements.

Situational Vignettes. To evaluate applied knowledge of interrogation rights, vignette responses were compared across the 3 caution conditions. First, percentages of incorrect responses were tabulated for the nine vignettes – results of the frequencies analyses are displayed in Table 11. In Vignettes one, two, three, and five, participants in at least one caution condition demonstrated higher than chance (>50%) levels of incorrect knowledge. Separate Chi-square tests of independence were conducted to assess whether there were significant differences in the amount of incorrect rights knowledge application on these 4 key vignette themes across the three caution conditions. A significance threshold of $p < .01$ was used to account for potential family wise error due to the number of Chi-square tests. For Vignette one, the Chi-square test of independence was not significant, X^2 (2, N = 90) = 2.44, p = 2.95, indicating that there were no significant differences in applied knowledge about having a lawyer present during interrogation

across caution conditions. For Vignette two, despite a clear reduced number of incorrect responses for participants who heard the informational (n = 12 incorrect) caution compared to the Simplified (n = 21 incorrect) and RCMP (n = 18 incorrect) cautions, the Chi-square test of independence was not significant, X^2 (2, N = 89) = 5.07, p = .08, indicating that students did not significantly differ in their applied knowledge of consulting a lawyer a second time. Similarly, for Vignette three, again despite a clear reduced number of incorrect responses for participants who heard the informational (n = 7 incorrect) caution compared to the Simplified (n = 13 incorrect) and RCMP (n = 15 incorrect) cautions, the Chi-square test of independence was not significant, X^2 (2, N = 89) = 4.44, p = .109, indicating that students did not significantly differ in their applied knowledge of consulting a lawyer of choice. Finally, for Vignette five, the Chi-square test of independence was not also significant, X^2 (2, N = 89) = 5.29, p = .071, indicating no significant differences in applied knowledge regarding police promises of leniency across caution conditions. As differences in scores were seen across some vignettes, composite scores of correct vignette answers were created to evaluate overall applied interrogation rights knowledge further. Items were recoded to reflect correct valence (based on breach or no breach), then complied. A One-Way ANOVA was used to assess whether there were differences in overall scores of correct vignette answers across conditions. Results were not significant, F(2, 88) = 1.04, p = .357), indicating no significant differences in average applied knowledge of rights across the three caution conditions.

Table 11

Vignette Results for Participant Working Knowledge of Canadians' Interrogation Rights Based on Breach (or no Breach) of Rights.

	Vignette Theme	Incorrect Responses		
		RCMP (n = 30)	Simplified (n = 30)	Informational (n = 30)
1.	Asked to have lawyer present	66.7%	80.0%	80.0%
2.	Denial of second consult with lawyer	60.0%	70.0%	40.0%
3.	Second consult with lawyer of choice (after using free legal aid)	50%	43.3%	23.3%
4.	Invoke right to silence, police continued questioning	36.7%	26.7%	13.3%
5.	Promises of sentence leniency if talk to police	60%	40.0%	66.7%
6.	Threats of worse sentence if did not talk to police	43.3%	20.0%	33.3%
7.	Denial of initial consult with lawyer	16.7%	23.3%	20.0%
8.	Denial of free legal aid	20.0%	13.3%	13.3%
9.	Forced to answer questions prior to consulting lawyer	13.3%	13.3%	10.0%

Note. N = 90 Ontario Tech University undergraduate students. Full vignette details can be found in Appendix D. RTC represents right to counsel. RTS represents right to silence.

True/False Statements. The true/false statements regarding the rights to silence and counsel were recoded to ensure valence of correct response and then summed to give each participant a score out of 20. Higher scores indicated more correct knowledge of interrogation rights (see Table 12). A One-Way ANOVA was used to evaluate whether total scores of interrogation rights knowledge (out of possible 20) across the 3 caution conditions significantly differed. Results of the analyses were not significant, $F(2, 88) = 2.05$ $p = .135$). The effect size was very small and non-significant, $\eta 2 = .045$ [$CI = .00$ to .14], and Levene's test was not significant, $F(2, 86) = 1.01$, $p = .370$, indicating no violation of homogeneity of variances. To further evaluate whether there were

differences on specific outcomes of interest (e.g., knowledge of right counsel or silence), two additional ANOVAs were conducted. For the right to counsel questions (total of 9), results of the One-Way ANOVA were significant, $F(2, 88) = 3.82$, $p = .026$), indicating differences in the amount of correct rights knowledge across the three caution conditions. The effect size was small but significant, η2 =.082 [*CI* = .00 to .19], and Levene's test was not significant, $F(2, 86) = .03$, $p = .97$, indicating no violation of homogeneity of variances. Through Tukey's post hoc test for multiple comparisons, it was determined that students who heard the Informational caution ($M = 6.69$, $SD = 1.04$) demonstrated significantly more correct knowledge of the right to counsel (*Mean difference* =.66, $p = .03$, *95% CI* = .05 to -1.26) than students who heard the RCMP caution ($M = 6.03$, $SD = .93$). There were no significant differences between the Informational and Simplified caution ($M = 6.13$, $SD = .97$). For the right to silence questions (total of 11), results of the One-Way ANOVA were not significant, $F(2, 88) = .34$, $p = .72$), indicating no differences in the amount of correct rights knowledge about the right to silence across the caution conditions.

Table 12

True/False Statement Averages of Correct Knowledge of Canadians' Interrogation Rights Across Caution Conditions.

	RCMP		**Simplified**		**Informational**	
	M	*SD*	*M*	*SD*	*M*	*SD*
RTC	6.03_a	.93	$6.13_{a,}$	.97	6.69_b	1.04
RTS	6.90a,	1.24	$7.10_{a,}$	1.75	7.21_a	1.35
Total	12.93_a	1.60	$13.23_{a,}$	1.91	13.90_a	2.08

Note. N = 90 Ontario Tech University student participants. RTC represents right to counsel. RTS represents right to silence. There were 20 statements in Total, 11 regarding RTC and 9 regarding RTS. Means not sharing subscripts differ significantly by $p < .05$.

Perceptions of Interrogation Rights

Participant perceptions of interrogation rights utilization were analyzed. As perceptions were not an experimental outcome of interest, and no differences were hypothesized across conditions, results were analyzed for the whole sample of participants. First, focusing on guilty suspects requesting to speak to a lawyer when facing police questioning, most participants disagreed that guilty suspects were more likely to do this than innocent suspects (M = 3.22, SD = 1.63, *skewness* = .24, *kurtosis* = -.88). Specifically, 52.2% disagreed (n = 16 strongly disagreed, n = 20 disagreed, and n = 11 somewhat disagreed), while 23.3% neither agreed or disagreed (n = 21), and 23.4% agreed (n = 2 strongly agreed, n = 5 agreed, and n = 14 somewhat agreed). Second, when asked whether guilty suspects would be more likely than innocent suspects to request to have a lawyer present during police questioning (M = 3.37, SD = 1.77, *skewness* = .19, *kurtosis* = -1.11), most participants (51.1%) again disagreed. Specifically, n = 17 strongly disagreed, n = 18 disagreed, and n = 11 somewhat disagreed, while 16.7% neither agreed or disagreed (n = 15), and the remaining 31.1% agreed (n = 3 strongly agreed, n = 8 agreed, and n = 17 somewhat agreed). However, when asked whether guilty suspects were more likely than innocent suspects to remain silent during police questioning, results were stronger in the opposite direction (M = 4.11, SD = 1.87, *skewness* = -.32, *kurtosis* = -1.23). Specifically, 52.2% agreed (n = 5 strongly agreed, n = 21 agreed, and n = 21 somewhat agreed), while only 10% neither agreed or disagreed (n = 9), and 36.7% disagreed (n = 10 strongly disagreed, n = 15 disagreed, and n = 8 somewhat disagreed).

Regarding innocent suspects asserting rights, when participants were asked if an innocent suspect does not need to contact a lawyer during police questioning (M = 2.22,

SD = 1.52, *skewness* = 1.35, *kurtosis* = 1.14), the large majority (82.1%) disagreed (*n* = 39 strongly disagreed, *n* = 22 disagreed, and *n* = 13 somewhat disagreed). Only 6.7% neither agreed or disagreed, and 10% agreed (*n* = 1 strongly agreed, *n* = 5 agreed, and *n* = 53 somewhat agreed). However, when asked whether an innocent suspect should cooperate with police and answer questions, participants were more likely to agree (*M* = 4.78, *SD* = 1.95, *skewness* = -.71, *kurtosis* = -.63). Specifically, 64.4% agreed (*n* = 19 strongly agreed, *n* = 20 agreed, and *n* = 19 somewhat agreed), while only 11.1% (*n* = 10) neither agreed or disagreed, and the remaining 23.4% disagreed (*n* = 10 strongly disagreed, *n* = 6 disagreed, and *n* = 5 somewhat disagreed).

Discussion

As researchers have commented on the limited nature of the available research on caution comprehension due to experiments under optimal laboratory conditions (Rendall & MacMahon, 2021), Study 3 sought to test rights knowledge and caution comprehension in a more ecologically valid setting. Specifically, Study 3 aimed to best replicate a real-life scenario wherein detainees are read their rights while under duress and cognitively focused on something else (e.g., their alibi). Within this model, it was important to simulate stress within ethical limits, as people often experience stress or duress when being detained and read a caution by police explaining their rights (Rogers et al., 2010). This experience of stress may negatively impact caution comprehension (Davis et al., 2011; Kassin & Norwick, 2004; Scherr & Madon, 2012), and this was expected. Thus, to fully evaluate the effectiveness of the modified cautions from Study 2 under stress inducing conditions, the Trier Social stress modified mock-interrogation paradigm was used.

Stress

Stress was self-reported by all participants and evaluated. All participants experienced the same experimental conditions of the Trier Social Stress Test modified mock-interrogation, with the only differences being the caution version they were read; thus, no differences were expected in self-reported stress. In alignment with this, all participants reported experiencing a moderate level of stress, with no significant differences across the 3 caution conditions. These results demonstrate that the mock-interrogation paradigm did ethically induce a level of stress in all participants, thus increasing the ecologically validity of this study.

Comprehension

While it was expected that this stress would impact comprehension across all three conditions, differences across caution condition groups were still hypothesized. Specifically, it was hypothesized that participants hearing the Informational caution would demonstrate higher levels of comprehension and knowledge compared to the RCMP and Simplified cautions (hypothesis 1), and that those hearing the Simplified caution would outperform those hearing the RCMP caution on the same outcomes (hypothesis 2). Both hypotheses were partially supported. Though self-reported comprehension (yes or no) was not analyzable – and comprehension measured via free-recall was low across all 3 conditions – results replicated those of Study 2: Participants in the Informational condition had the higher average comprehension, but these differences across the 3 conditions were not significant.

Knowledge

When looking at measures of interrogation rights knowledge, similar results were noted. Those hearing the informational caution demonstrated higher levels of correct knowledge on average about rights for the true/false measures overall, but these differences across all three caution conditions were not significant. However, when looking more closely at the rights to counsel and rights to silence measures, differences were seen for at least one of the two interrogation rights: those hearing the informational caution had the highest levels of correct knowledge and performed significantly better on knowledge of the right to counsel true/false measures as compared to those who heard the RCMP caution. For vignette measures of working knowledge of rights, again those who heard the informational caution demonstrated the highest amount of correct knowledge, but no significant differences were seen across the three conditions.

Perceptions

The student participants of Study 3 held generally held similar perceptions about the utilization of interrogation rights those as seen in those with both samples of Canadians. Chiefly, students seemed to have an appreciation that, regardless of guilt or innocence, suspects should be requesting to consult with counsel. These results were particularly strong for innocent suspects use of a lawyer, indicating that students have an appreciation of the power imbalance of police interrogations. Interestingly, however, when looking at the right to silence, students seemed to believe that guilty suspects were much more likely to not answer questions and cooperate with police, while indicating that innocent suspects should cooperate and answer questions.

Implications

Although many of the results of Study 3 were not strong in their statistically significant support of the Informational caution, it should be noted that performance on the key elements of rights limitations were enhanced on average over the Simplified and RCMP cautions, and this is still an important outcome. Limitations to the rights to counsel and rights to silence in Canada are not well known by Canadians, as seen in Study 1. Thus, from an advocacy standpoint, any improvement, even if not statistically significant, could still be enhancing the protective efficacy of rights. Social justice advocates may see benefits in providing a more Informational caution that has reworked wording and structure to follow best practices for readability if it can better protect even just one Canadian facing police interrogation from a possible miscarriage of justice.

GENERAL DISCUSSION

Countries around the world have recognized that when citizens are facing police interrogation, and are effectively under state control (e.g., arrest, physical detainment, or psychological detainment), they should be afforded special protections (Law Library of Congress, 2016). Although the scope of these protections may differ across country to country, state to state, and even across jurisdictions, detainees in a number of countries are afforded the rights to silence and counsel (Helms, 2003; Law Library of Congress, 2016; Rogers, et. al, 2008; Winningham et al., 2018). This is true for detainees in Canada as well (Canadian Charter of Rights and Freedoms, 1982). Furthermore, global similarities exist seen in the way police in various countries legally have to caution detainees about their rights, and that the detainee should comprehend the information (Law Library of Congress, 2016). In Canada specifically, caution comprehension is

imperative for effective use, or waivers, of interrogation rights (*Clarkson v. The Queen*, 1986; *Korponay v. Attorney General of Canada*, 1982; *R. v. Evans*, 1991; *R. v. Kennedy*, 1995).

Outside of the written caution content itself, a factor that may influence rights comprehension is prior knowledge (Winningham et al., 2018). Though previous studies with Canadian student samples demonstrated troubling inaccuracies in interrogation rights knowledge (Patry et al., 2017), there was a real lack of research into the general Canadian population's base knowledge of interrogation rights. Study 1 sought to address this gap through a survey methodology. Evidence from Study 1 suggests that Canadians are not well informed about their interrogation rights overall, and this is demonstrated through poor performance across multiple measurements (e.g., open-ended, applied, and statements). More concerning, though, is that these results also show Canadians hold very highly levels of misinformation about specific key limitations to the rights to counsel: a striking number of Canadians incorrectly believe that they can have a lawyer present during questioning. These Canadians, if detained and facing police interrogation, would then be faced with the reality of holding a false belief in their ability to have their counsel there present with them during police questioning. This is a problematic scenario that may increase a detainee's levels of stress and isolation. Both stress and isolation has been cited as factors that are related to compliance (Leo, 2009; Kassin & Gudjonsson, 2004), and are linked to false confessions (Leo, 2009). It is possible that this would leave these Canadians in an interrogative situation where the power imbalance that is tipped even further.

In addition to incorrectly believing Canadians have the right to have a lawyer present during questioning, high levels of misinformation were also seen regarding other components of interrogation rights. Over half of Canadians were incorrect on nine of twenty statements about interrogation rights. Canadians falsely believed they are able to speak to a lawyer more than once. They also falsely believed that they would be given the ability to speak to their lawyer of choice, regardless of the time it took to contact counsel. Regarding the right to silence, more than half of Canadians falsely believed that the police have to end questioning after invoking the right to silence. Although these incorrect beliefs were held by Canadians across our sample, one thing that does seem to influence Canadians' overall performance on knowledge of interrogation rights measures is their age: as age increased, performance scores also slightly increased. As previously mentioned, this finding is in line with previous work on Miranda rights wherein age has been a factor that influences comprehension (Goldstein, 2003; Viljoen et al., 2007) and misconceptions about Miranda rights (Winningham et al., 2018).

Although the strikingly high levels of misinformation held by the Canadian population on key limitations of the rights to counsel and silence are concerning, the reality is that, from a social justice standpoint, there should be no acceptable percentage where Canadians are misinformed about any aspects of their interrogation rights. Canadians can only properly waive their rights if done so with an understanding of what their rights are and the consequences of giving them up (*Clarkson v. The Queen*, 1986; *Korponay v. Attorney General of Canada*, 1982; *R. v. Evans*, 1991; *R. v. Kennedy*, 1995). All Canadians should be fully and correctly informed about all aspects of their interrogation rights; if Canadians are informed about any elements, then this reduces the

efficacy of the rights in practice, and place people who are already in a disproportionate power situation at a further disadvantage. As such, it was the goal to move forward in this program of research to increase Canadians comprehension of the police caution which informs them of their rights.

To improve caution comprehension, caution modifications that have shown promising improvements in past research (e.g., Eastwood et al., 2010; Eastwood et al., 2012) were utilized in Study 2 with a newly added methodology of providing more critical information about interrogation rights limitations. Two cautions were created as a result of this methodology. Both created cautions outperformed the RCMP caution across six measures of readability and complexity, with the Informational caution having the best scores. With a goal of increasing Canadian's knowledge of interrogation rights, this was achieved by presenting participants with the Informational caution. Importantly, average correct responses for key items regarding limitations to Canadian's interrogation rights were improved through use of the Informational caution. As previously mentioned, these results may seem intuitive: if we provide people with the information, they should be able to perform well on measures of that information. However, based on Study 1 results, these are important findings that lend support to the Informational caution increasing the efficacy of interrogation rights through enhancing knowledge.

Those who heard the Simplified caution also demonstrated improved knowledge and comprehension, but not to the same degree. It was harder to assess the real impacts these cautions had on comprehension, as self-reported comprehension was high across conditions, but scores of actual comprehension measured via free recall were low. These results are not entirely unexpected – past research has demonstrated that self-reporting of

caution comprehension is not a reliable measure, as it does not often align other measures of comprehension such as free recall (e.g., see Cooke & Philip, 1998; Fenner et al., 2002). It should also be noted that the RCMP caution was better than hearing no caution when measuring knowledge. Regardless of the complexity and readability issues within the RCMP content and structure, there is no doubt that it better prepares detainees facing police interrogation than if they had not been provided any caution at all.

Although the results of Study 2 are promising, they should be interpreted cautiously due to the nature of the experiment, wherein it was a low-stakes online design. Previous research into caution comprehension has been criticized for its lack of ecological validity – citing concerns over results that are achieved in under optimal laboratory settings (Rendall & MacMahone, 2021). As such, the cautions from Study 2 were further tested in a more ecologically valid higher-stakes mock interrogation paradigm designed to elicit moderate levels of stress. Although now using a sample of Canadian students, overall results still provided support to the Informational caution as a better mode of interrogation rights delivery over the Simplified caution and RCMP caution: students who heard the Informational caution performed better on measures of knowledge. Support for increasing comprehension was less clear – the same issues noted in Study 2 measures of comprehension (stated vs. free-recall) were also seen in Study 3. Improvements to comprehension were therefore marginal, and not statistically significant. However, as mentioned, from a social justice orientation, any improvements to knowledge of interrogation rights and caution comprehension, statistically significant or not, should not be discounted – if the Informational caution would provide benefits to

even one detainee over other caution versions, then it's practical use should be further explored.

Implications and Importance

This proposed program of research sought to add a significant contribution to the current work on Canadians' knowledge of interrogation rights and comprehension of police cautions that relay them. It is imperative that we strive to improve Canadians' knowledge and understanding of their arrest rights to ensure that detainees are properly protected from the power imbalance present during police interrogation. Unfortunately, ss demonstrated in both previous research (e.g., Patry et. al, 2017) and Study 1, it seems to be that Canadians are generally misinformed about their interrogation rights. These results are problematic - when a detainee is misinformed about their interrogation rights and is verbally cautioned about these rights by police, miscomprehension is likely increased. When detainees do not comprehend their rights as explained in a police caution, it creates two justice system issues.

First, the rights that are in place to protect detainees become ineffective if they are not understood (*Clarkson v. The Queen*, 1986). If interrogation rights are not protecting detainees, this poses serious concern - miscomprehension leads to invalid waivers of rights and creates a risky interrogative environment for detainees. Under these conditions, elicitation of false statements or false confessions is likely to occur. In a worst-case scenario, this may lead an innocent person to falsely confess during interrogation due to police pressures (Kassin & Gudjonsson, 2004). False confessions stemming from in-custody interrogations have been extensively studied in the field of psychology and law (e.g., Bem, 1966; Kassin et al., 2010; Kassin & Gudjonsson, 2004;

Smith et al., 2012) for a few reasons. First, a confession is a heavily weighted piece of evidence in a criminal trial. Second, false confessions may lead to wrongful convictions which fly in the face of the justice system purpose. Evidence from the Innocence Project and DNA exonerations analyses do indicate that false confessions are prevalent, occurring in roughly one fourth of wrongful convictions (Appleby et al., 2013; Innocence Project, 2022; Kassin et al., 2012). If the purpose of interrogation rights is to protect innocent detainees from this exact scenario, then all efforts should be made to ensure that these protections are effective.

The second justice system issue is that a lack of caution comprehension and understanding of rights poses an issue for police investigators as well (*Clarkson v. The Queen*, 1986). In Canada, any confession or incriminating statements collected from a detainee who did not truly comprehend their rights may result in a breach of Charter, and this deem critical verbal evidence as inadmissible during trial proceedings (Canadian Charter of Rights and Freedoms, 1982; Eastwood, Snook, & Luther, 2014; *R. v. Oickle*, 2000). This causes an issue, wherein when a criminal case hinges on confession evidence from a guilty suspect, a case may not be able to proceed.

Taken together, these two issues highlight the importance of working toward ensure Canadian detainees who face interrogation are effectively protected. This program of research sought to tackle this issue by increasing the comprehensibility and quality of information contained in a Canadian caution. Importantly, the Informational caution provided more critical information on the limitations Canadians have to their right to counsel and right to silence. In practice, these caution modifications may

increase both comprehension and knowledge, thus influencing understanding, and in turn increasing the protective efficacy of rights.

It should be noted, however, that even the best caution modifications may not be enough to increase the protective efficacy of rights in practice, and particularly for innocent individuals. As noted by Kassin (2005), there is an "illusion of transparency," (Gilovich et al., 1998; Miller & McFarland, 1987) wherein suspects may overestimate investigators' ability to be cognizant of their true thoughts, emotions, and thus, innocence. This illusion of transparency often means that innocent suspects approach police interrogations with a mindset wherein they feel that they have nothing to hide, so they are compliant to investigators in believing that the truth will set them free (Kassin, 2005; Kassin & Fong, 1999; Leo, 1996). This is demonstrated behaviourally in real life and in research: real suspects often waive their rights and submit to questioning (Leo, 1996) and innocent participants in psychological experiments are more likely to waive their rights (Kassin & Norwick, 2004; Moore & Gagnier, 2008). This likelihood of waiving rights is further compounded by other person-factors, including Just World Beliefs (Scherr & Franks, 2015). Thus, regardless of whether we provide Canadians with a perfectly clear and informational caution, innocent suspects may waive their rights regardless. As such, modifying police cautions may not therefore fully protect Canadians, and reduce custodial false confessions. However, from a social justice orientation, this program of research is a step in the right direction to increase the efficacy of interrogation rights in practice for Canadians.

Limitations

Although this program of research followed a sequential set of planned studies designed to incrementally test modified cautions designed to increase comprehensibility and knowledge of interrogation rights, and increase ecological validity, it was not completely conducted without some minor limitations or design flaws. The first limitation of this research is related to sample size. Though both Studies 1 and 2 utilized medium-sized paid samples of Canadian community participants, who self-reported being non-students, it is not appropriate to draw hard conclusions about all Canadians. Though both studies met required power needs, results should be taken carefully, as although they were more applicable than student samples, they by no means fully represent the full Canadian population in a broad sense. Future research should seek to gather larger samples (e.g., over 1,000) of Canadians to test whether these alarming trends of misinformation regarding interrogation rights are replicated. Further research into Canadian students' knowledge of interrogation rights and comprehension of police cautions should also be conducted to get a full view of the state of the issue. Additionally, it might be worthwhile for future research on Canadian's knowledge of interrogation rights to further assess whether the sources where they gather knowledge from has any relationship to accuracy, and in particular whether viewing of US crime shows are related to the lack of knowledge on the key limitations about rights.

With the use of the mock-interrogation paradigm incorporated into Study 3, it can be argued that the ecological validity of the experiment was increased. However, the research was also not without limitations. One limitation of both Study 2 and Study 3 can be seen in the way comprehension was confirmed. Although the goal was to mimic

the actual police procedure of capturing a verbal confirmation of comprehension in Study 3, it limited the ability to compare comprehension more deeply across conditions. Furthermore, in an attempt to mitigate participant fatigue, there was no follow up with a non-binary measure of caution comprehension, instead relying on the free recall. Additionally, in Study 2, self-reported measures of comprehension could have been expanded and compared to additional measures of tested comprehension. In both Studies 2 and 3, there was an extreme disparity between levels of self-reported caution comprehension (very high) and tested measures of comprehension, via free recall (very low) across all caution conditions. An alternative measure of comprehension should therefore be included in any future work. One methodology used by other researchers in this area that could be easily included in the future is asking participants to repeat back the caution components and their meaning in their own words (Grisso, 1981).

A potential reason why the same strength of results regarding the different cautions in Study 2 that was not seen in Study 3 lies inherently in the methodology. Though we did our best to mimic the stress that a person experiences in real life while being cautioned under police detention, it is possible that our methodology focused participants too sharply on the alibi aspect which in turn may have impacted caution comprehension. Furthermore, participants gave their full alibi and experienced the full mock-interrogation before being moved to the computer to complete the measures of comprehension and knowledge of interrogation rights. Although realistic, this delay in time could have potentially impacted comprehension and knowledge.

Across all three studies, information regarding participants ethnicity was not included. This was purposefully left out to avoid participant fatigue, but it also limits the

scope of the results for this research as we were unable to assess whether a relationship existed between ethnicity and interrogation rights knowledge or caution comprehension. Along the same vein, this research was limited in that we did not verify whether participants first language was English. It should be noted, however, that there were no direct hypotheses about ethnicity or language impacting interrogation rights knowledge and caution comprehension, thus this did not impact the main results. However, this limitation did decrease the ability to conduct further exploratory analyses and is something that should be included in future research.

A final limitation for Study 3 also involved the measuring of induced stress data that was collected via use of the BIOPAC EDA lead. The student research assistants ran into issues capturing accurate measures of electrodermal activity (EDA) data, wherein not all data was captured correctly or fully from the student participants. As such, it was not possible to evaluate and compare this stress data, due to the low number and quality of data collected, and the measure of stress had to rely on self-report data. It should be noted, however, that this limitation only influenced exploratory analyses – there were no hypotheses directly related to stress. The purpose of utilizing the EDA lead and measurement was to *induce stress,* rather than to actually measure it in this manner. Furthermore, all student participants in Study 3 went through the same methodology regarding the modified Trier Social Stress, and there were no differences across the three conditions in self-reported stress. As stress has been shown to impact caution comprehension in US samples (Scherr & Madon, 2012), future research should accurately measure stress through both physical and self-report measures to ensure saliency of the

methodology and to be able to better assess the impact of stress on Canadians' caution comprehension.

Future Directions

The next logical step in this program of research would be to work with a Canadian policing agency to test the two modified cautions with real detainees in real criminal cases. Only at this point would ecologically validity be reached, and the results would be able to be interpreted with less caution. Some Atlantic Canadian policing agencies have been willing to work with psychological researchers in providing video recordings of real cautioning and interrogative practices (e.g., see King & Snook, 2009; Snook et al., 2010; Shaw, 2020), so perhaps these organizations should first be approached to test the successful modified caution in practice. In addition to this, the applied studies of real cautioning practices in Canada are extremely limited – if a policing organization would be open to testing the cautions in practice, it might be beneficial from a research perspective to look at their actual cautioning practices. Of one study looking at actual cautioning practices with 126 suspects in a real Canadian interrogation room, 78 items were coded for (e.g., rate of speech, verbatim reading of rights, methods to capture suspect comprehension; Snook et al., 2010). Future research should utilize the same, or similar, coding manual but focus on working with more policing organizations across Canada to gain a clear and comprehensive picture of current police cautioning practices. Ultimately, even a caution designed to improve suspect understanding and knowledge may be rendered ineffective if the practices of delivering it are not following best practices for listenability.

It should also be noted that, although the base rights required to be provided to Canadian detainees concerning the rights to counsel and silence are effectively limited compared to other jurisdictions as per SCC rulings (Patry et al., 2014), there are likely instances where police investigators afford less restrictions to certain detainees. For example, an investigator may allow a detainee a second phone call to their lawyer, despite not having to do so. Or an investigator may allow a detainee to have a lawyer present during questioning. Perhaps an investigative line of questioning is ended when a detainee asserts the right to silence. As such, future research should focus on evaluating actual use of rights in real Canadian interrogations. Work by Snook and colleagues (2010) has begun to study this issue by peering into the administration, utilization, and waivers of real cautions in Atlantic Canadian interrogation rooms, however, this work by no means represents what happens in interrogation rooms across Canada.

Furthermore, aside from gaining access to real police interrogations to assess allowance of rights usage beyond the basic guidelines, Canadian police should be surveyed on their views about their current caution, their current practices regarding cautioning. Questions should focus on the method of deliver most used by real Canadian police in practice (e.g., relayed verbally only? Read verbatim always?) and their views of the caution (e.g., is it comprehensible? Is it informative?). If potential changes to policing policies, such as caution standardization, are to ever take place, there would likely have to be support of actual current Canadian police investigators.

Additional areas for future research should focus on assessing outcomes of real police investigations wherein Canadian detainees did not comprehend their interrogation rights, as this can create two negative outcomes. The first outcome to be assessed could

cases where confession evidence or incriminatory statements made by a detainee during police interrogation were considered inadmissible at the trial stage due to a lack of caution comprehension, improper waivers, or breach of rights. Police investigations often hinge on confession evidence – this is demonstrated through the creation of the Mr. Big undercover technique which was designed by the RCMP in the 1990s to elicit confessions (Moore et al., 2009). Cases where critical confession evidence becomes inadmissible may lead to unsolved cold cases, wherein justice is not served for a victim, their family, or to the general public. The second outcome that could be empirically assessed would be successful case appeals based on a breach of Charter rights. The latter may be more practically able to be studied as court rulings are often published, and information on confession admissibility in individual cases may be very difficult to find as it would not likely be publicized unless a case was appealed.

Conclusion

In sum, the Canadian courts have recognized that detainees face a situation of imbalanced power when facing police interrogation and have outlined two protective rights: the right to silence and counsel (Canadian Charter of Rights and Freedoms, 1982). However, when these rights are not understood, either from a lack of caution comprehension or other impacting factors such as prior incorrect knowledge, the rights become less effective and this can cause issues within the justice system wherein detainees are not protected and investigators may collect inadmissible, or false, statements (Rogers & Drogin, 2016). False statements from an innocent suspect may lead to a wrongful conviction (Appleby et. al, 2013; Innocence Project, 2022; Kassin et. al, 2012). These issues highlight the importance of researchers putting in best efforts to

ensure Canadian detainees who face interrogation are effectively protected. Efforts were made in this program of research through caution modification techniques and providing more critical information. Through improving a Canadian police caution to be both more informative and more comprehendible, we can better prepare detainees who face police interrogation and questioning. This is turn should also benefit investigators and the justice system as a whole, as with better detainee comprehension and knowledge of rights should lead to fewer contested admission of statements and less appeals of court judgments. However, these benefits are only impactful if they are applied in real-life interrogative scenarios. Based on the evidence from all three studies in this program of research, implications could be far reaching if policing organizations would be willing to focus on evidence-based best practices and make changes to their current cautions.

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APPENDICES

Appendix A – Study 1 and Study 2 Informed Consent form

UOIT REB #14349
Principal Investigator: Christina J. Connors
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Faculty Supervisor: Dr. Joseph Eastwood
Contact: Joseph.Eastwood@uoit.ca
Social Sciences and Humanities
University of Ontario Institute of Technology, Oshawa, ON

INTRODUCTION

I am first year doctoral student in the Forensic Psychology program at the University of Ontario Institute of Technology. I am conducting research under the supervision of Dr. Joseph Eastwood, Full-time Faculty member in the Faculty of Social Sciences and Humanities. You are invited to participate in this research study on Canadian Legal Rights Upon Arrest.

PURPOSE OF THIS RESEARCH

The purpose of this research is to gain further understanding of Canadians' knowledge and perceptions about legal rights upon arrest.

WHO IS ELIGIBLE TO TAKE PART?

You are eligible to participate in this study if you are a Canadian, non-student, over the age of 18.

WHAT DO I HAVE TO DO?

You are invited to complete an online study. The study should take approximately a half hour to complete. Participation in this study is voluntary. Where the study is conducted online, you may participate from home or at any location of your choice. First, you may watch a brief video. The first section of the study will contain a series of True/False statements. The second section of the study will contain short situations that you will read and evaluate. The third section of the study will contain perception questions. The final section contains demographic questions.

WHAT ARE THE POTENTIAL BENEFITS OF THIS RESEARCH?

This study will potentially benefit the research, and possibly legal, community by providing further information on Canadian's perceptions and knowledge about legal rights upon arrest. This study could potentially benefit you as a participant by increasing your knowledge about Canadian citizens legal rights upon arrest.

WHAT ARE THE POTENTIAL RISKS FOR PARTICIPANTS?

There are no foreseeable physical, psychological, economic, or social risks to you as a participant in this study. You are not obliged to answer any questions that you find objectionable or which make you uncomfortable. Although there are no foreseeable risks,

if at any point in time you have negative feelings of anxiety or arousal, you can withdraw from the study (see below). You are encouraged to seek counseling services either by telephone or in person at an agency closest to you. *If you are receiving compensation for participating in this study, you should be aware that an incomplete response may result in a decrease or nullification said compensation.*

HOW CAN I WITHDRAW FROM THIS STUDY?

If at any point in time you wish to withdraw from this study you can do so without penalty. If you wish to withdraw from the study you can close the browser at any time during the survey before completion. Your data will be destroyed and not used in the study or in any other manner. Please note that upon completion of this study, you are unable to withdraw, as your data will be unidentifiable. If you wish you withdraw and not have your data included in the study, you must withdraw upon reaching the demographic questions at the end. Your progress will be shown to you as you complete the survey.

WHAT WILL BE DONE WITH MY INFORMATION?

All of your survey responses including your demographic information will be kept confidential. Only the research team and I will have access to your information. Data from the survey will be collected and stored on a password-protected, encrypted website (Qualtrics.com). UOIT has a licensed agreement with Qualtrics. Qualtrics servers are securely hosted in Ireland. Qualtrics ensures protected transmission of data through servers encrypted using TLS (Transport Layer Security). No individual participant information will be used in the reported findings of this research. All data will be stored on a separate secure thumb drive kept in a locked cabinet at UOIT, and destroyed at the appropriate date and time.

HOW CAN I GET MORE INFORMATION?

If you have any questions concerning the research study or experience any discomfort related to the study, please contact the principal investigator, Christina Connors, at Christina.Connors@uoit.ca, or the faculty supervisor, Dr. Eastwood, at Joseph.Eastwood@uiot.ca.

Any questions regarding your rights as a participant, complaints, or adverse events may be addressed to Research Ethics Board through the Research Ethics Coordinator – researchethics@uoit.ca or 905.721.8668 x. 3693.

This study has been approved by the UOIT Research Ethics Board REB #14349 on March 24, 2017.

I have read and understood the statements above. I have had my questions answered to my satisfaction and I understand that I may ask additional questions at any time. I understand what this study is about and appreciate the risks and benefits. I understand that my participation is voluntary and I can withdraw from this study at any time without penalty. ***By checking "I give my informed consent" below, my digital signature indicates my free and informed consent to participate in***

this research. I understand that the researchers may use this data for secondary analyses. I understand that I have not waived my legal rights.

I give my informed consent. (1)

I do not give my informed consent. (2)

Appendix B – Open-Ended Rights Knowledge and Recall Coding Guide

RTI – right to be informed
RTC – right to counsel related
RTS – right to silence related
RTR – random rights

1.	RTI	Right to be informed of charges / reason for detainment
2.	RTS_1	Right to remain silent / not speak
3.	RTS_2	Statements used as evidence *against* them as evidence and in any future legal proceedings
4.	RTS_3	Nothing to hope from promise / police interrogators can't make promises / favours
5.	RTS_4	Nothing to fear from threats of violence / police interrogators can't make threats
6.	RTS_5	Police can continue questioning (even if person remains silent)
7.	RTS_6	Remaining silent can't be held/used against you
8.	RTS_7	Other (e.g., right to speak, answer questions, etc)
9.	RTC_1	Right to a lawyer / counsel (speak/talk/call)
10.	RTC_2	RTC/lawyer is *immediate* / before questioning
11.	RTC_3	Right to free legal aid / free lawyer / duty counsel
12.	RTC_4	Right to phone number to call free lawyer
13.	RTC_5	Right to have lawyer *present* (during questioning)
14.	RTC_6	Right to speak to/consult with a *lawyer in person*
15.	RTC_7	Right to apply for legal aid / lawyer in later court proceedings
16.	RTR_1	Right to a phone call (not to call lawyer)
17.	RTR_2	Right to basic needs (bathroom / water or drinks / food or snacks / sleep)
18.	RTR_3	Right to Medicine / medical access
19.	RTR_4	Right to Clean / humane conditions (of cell or holding place)
20.	RTR_5	Right to no searches without warrant
21.	RTR_6	Innocent until proven guilty
22.	RTR_7	Right against self-incrimination
23.	RTR_8	Right against electronic searches (cell phone, computer)
24.	RTR_9	Right to fairness / fair trial
25.	RTR_10	Right to correct language / interpreter
26.	RTR_11	Other
27.	RTR_12	"Do not know" / "Not sure"/ "Unsure"
28.	RTR_13	Nonsense response

Appendix C – Sources of Legal Knowledge Coding Guide

1.	EDU1	Education
2.	EDU2	Education (secondary)
3.	EDU3	Education (high school)
4.	SCHOOL	School (general)
5.	CLASS1	Classes (general)
6.	CLASS2	Classes – criminology
7.	CLASS3	Classes – sociology
8.	CLASS4	Classes – psychology and law/forensic psychology
9.	CLASS5	Classes – Law
10.	BOOK1	Books (general / "textbooks" no specific type)
11.	BOOK2	Books – criminology
12.	BOOK3	Books – sociology
13.	BOOK4	Books – psychology and law/forensic psychology
14.	BOOK5	Books – law
15.	BOOK6	Books – crime fiction
16.	BOOK7	Books – other
17.	READ	Reading (other/general)
18.	INTER1	Internet / Online (general)
19.	INTER2	Internet – search engines
20.	SOCMED	Social Media
21.	MED1	Media – general
22.	NEWS1	News (general)
23.	NEWS2	Newspaper
24.	NEWS3	News – TV
25.	NEWS4	News – online
26.	NEWS5	News - radio
27.	COMSEN	Common sense
28.	EXPER1	Experience (general)
29.	EXPER2	Experience – personal contact with legal system
30.	EXPER3	Experience – family/friend contact with legal system
31.	MORAL	Conscience / Morals
32.	SCC	Supreme Court of Canada
33.	CHART	Charter of Rights and Freedoms
34.	CEA	Canada Evidence Act
35.	CCC	Criminal code of Canada
36.	CASES	Cases (general)
37.	ARTIC	Articles (general)
38.	RESCH	Research (general)
39.	LAWOTH	Law other (non-specific)
40.	TELEV1	Television (general/movies)
41.	TELEV2	Television – court shows / documentaries (non-fiction)
42.	TELEV3	Crime Television – Law and Order
43.	TELEV4	Crime Television – CSI

44.	TELEV5	Crime Television – First 48
45.	TELEV6	Crime Television (crime shows in general / other criminal TV show)
46.	LEGAF1	Legal affiliation (general / other)
47.	LEGAF2	Legal affiliation (is a police officer)
48.	LEGAF3	Legal affiliation (is a lawyer/law student/judge)
49.	LEGAF4	Legal affiliation (used/has a lawyer)
50.	LEGAF5	Legal affiliation (family/friend general/other)
51.	LEGAF6	Legal affiliation (family/friend is a police officer/parole officer/)
52.	LEGAF7	Legal affiliation (family/friend is a lawyer or law student or judge)
53.	FRIEN	Friends (general)
54.	FAM	Family (general)
55.	COWOR	Co-workers (general)
56.	PEOP	People (other/general)
57.	WORK	Work (general)
58.	OTHER	Other (nonsensical; e.g., “everywhere”, “nowhere”)
59.	NONE	Not sure / don’t know / none

Appendix D – Situational Vignettes

Vignette Instructions

You will now be presented with 9 scenarios regarding ADULTS in different legal scenarios.

You will be asked to evaluate each scenario individually. Please respond to the criteria based on what you believe to be true in Canada.

Please respond to the statements based on your knowledge of Canadian law. Please do not refer to the internet or other sources when responding.

Vignette #1 – Right to Silence

"Sam" was arrested by police, read his rights, and brought in for questioning. The police allowed Sam to contact, a lawyer. After Sam spoke to a lawyer, a police officer began to question him.

During the course of the police questioning, Sam, said he wanted to remain silent multiple times and that he would not answer any more. The officer continued to question Sam anyway.

Did the police officer violate Sam's legal rights?

1. Yes
2. No

Explain why you said "YES" (the officer did violate Sam's rights)?

_____

Explain why you said "NO" (the officer did not violate Sam's rights)?

_____

Vignette #2 – Right to Counsel

The police arrested "Devin" at his home, read him his rights, and brought him in to the station. The police allowed Devin to contact a lawyer. Devin made a phone call to his lawyer before a police officer began the interview. Devin told the officer he was satisfied with lawyer's advice.

Shortly after the questioning began, Devin asked to speak to a lawyer again. The officer refused Devin's request and continued the questioning.

Vignette #3 – Right to Counsel

"Jordan" was brought to the police station for questioning, where he became the prime suspect and was arrested. Before a police officer questioned Jordan, they read him his rights. Jordan called and spoke to a lawyer. During the interview, Jordan asked to have his lawyer present. The officer told Jordan that he does not have to allow a lawyer to be present during the interview and continued the questioning.

Vignette #4 – Right to Counsel

"Jamie" was arrested at his place of work. Jamie was upset and, when brought to the police station, he chose not to call a lawyer. A police officer read Jamie his rights, and then began to question Jamie. About an hour into the interview, Jamie stated that he

wanted to speak to a lawyer. The officer refused Jamie's request to contact a lawyer, because he had chosen not to speak to a lawyer prior to beginning the interview.

Vignette #5 – Right to Counsel
"Vic" was arrested and read his rights. Vic was unable to reach his personal lawyer, as his lawyer was out of the office for the weekend. The police gave Vic a phone number to contact a free legal aid lawyer instead for advice. Vic spoke to the legal aid lawyer. A police officer then began questioning him. During the questioning, Vic mentioned he really wished he could have spoken to his personal lawyer. The officer told him he had used up his right to counsel by speaking to the legal aid lawyer.

Vignette #6 – Right to Silence
When "Leslie" was arrested, police brought him in to the station and read him his rights. Leslie was allowed to contact his lawyer. A police officer began to question Leslie in an interview room. Leslie stated his lawyer recommended that he not answer their questions and instead remain silent. The officer told Leslie that his sentence might be reduced if he cooperated and talked to them.

Vignette #7 – Right to Silence
"Patty" was arrested, read his rights, and brought in to the police station. Patty contacted his lawyer, who advised him to not answer any questions. A police officer began to interview Patty. Patty stated he was remaining silent, and that he would not answer any questions. The officer said that things would be worse for him in court if he did not cooperate and answer questions. Patty then began to answer the police questions.

Vignette #8 – Right to Counsel
Police arrested "Jerry" and brought him into the police station. When the officer informed Jerry of his right to counsel, Jerry stated he did not have the money to contact a lawyer. The officer informed Jerry that he was responsible for getting his own legal advice prior to being questions. The officer then began to question Jerry about the crime.

Vignette #9 – Right to Counsel
When police arrested "Taylor", he was read his rights and brought in to the police station for questioning. Taylor asked the police officer if he could contact his lawyer. The officer said he would let Taylor speak to his lawyer after he asked him a few questions about the crime. The officer asked Taylor the questions, and then allowed Taylor to call his lawyer.

Appendix E – True/False Statements

True/False Instructions

You will now be presented with 20 statements regarding ADULTS in different legal situations.

Please indicate whether each of the following statements are TRUE or FALSE based on what you believe to be legally acceptable in Canada.

Please respond to the statements based on your knowledge of Canadian law. Please do not refer to the internet or other sources when responding.

1. An arrested person has the right to remain silent and choose not to answer police questions during an interrogation.

2. The police are not required to inform an arrested person that they can remain silent and choose to not answer any questions.

3. If an arrested person states they have chosen to exercise their right to silence, police have to stop questioning them.

4. Statements given by an arrested person to police can be used as evidence against them in court.

5. Statements made by an arrested person supporting the fact that they are innocent will be used as evidence for them in court.

6. Police can tell an arrested person they may get a reduced prison sentence if they choose to speak and answer questions during an interrogation.

7. Police can tell an arrested person they may receive a lengthier prison sentence in they refuse to speak and answer questions during an interrogation.

8. Police can pretend to be a prisoner in a nearby jail cell to get an arrested person to talk.

9. Police can pretend to be a lawyer to get an arrested person to talk.

10. Police can pretend to be a priest or chaplain to get an arrested person to talk.

11. Police have to allow an arrested person to have a lawyer present during an interrogation if they request one.

12. An arrested person has the right to speak with a lawyer multiple times during an interview.

13. An arrested person has the right to contact a lawyer of their choosing, regardless of how long it takes to contact the lawyer.

14. An arrested person has the right to contact a free legal aid lawyer.

15. An arrested person is required to have a lawyer present during an interrogation.

16. An arrested person must fully comprehend their legal rights before the police can question them.

17. Police are required to inform an arrested person of their right to contact and talk to a lawyer prior to any questioning.

18. If an arrested person remains silent during a police interrogation, later at their trial the judge (or jury) can infer that they might be guilty because they remained silent.

19. An arrested person has the right to talk to a lawyer and receive legal advice before the police ask them any questions.

20. The police are required to provide an arrested person with the contact information of a free legal aid lawyer if they want to contact one for legal advice before questioning.

Appendix F – Perceptions of Interrogation Rights

Perception Question Instructions

You will now be presented with 5 statements regarding your perceptions of the law and justice.

1. Guilty suspects are more likely than innocent suspects to request to speak to a lawyer when being questioned by police.

2. Guilty suspects are more likely than innocent suspects to request to have a lawyer present when being questioned by police.

3. Guilty suspects are more likely than innocent suspects to remain silent when being questioned by police.

4. If a suspect is innocent, they don't need to contact a lawyer when being questioned by police.

5. If a suspect is innocent, they should cooperate with police, and answer questions to prove their innocence.

Appendix G – Study 1 Demographic Questions

Demographic Instructions
Please tell us about yourself by answering the following questions.

1. Are you a Canadian citizen?
   - Yes
   - No

2. Are you currently a student?
   - Yes
   - No

3. Age
   - 18 to 100

4. Sex
   - Male
   - Female
   - Other

5. In what Province do you currently live?
   - British Columbia
   - Alberta
   - Manitoba
   - Ontario
   - Quebec
   - New Brunswick
   - Nova Scotia
   - Prince Edward Island
   - Newfoundland & Labrador
   - Yukon
   - Nunavut
   - Northwest Territories

6. Do you currently live in an urban (i.e., city or suburb) or rural (i.e., countryside or village) area?
   - Urban
   - Rural

7. What is your highest level of education?
   - Up to Grade 8
   - Grade 9
   - Grade 10
   - Grade 11

- High School Diploma
- High School Equivalency
- University (Undergraduate)
- University (Graduate – Masters Degree)
- University (Graduate – Doctoral Degree)
- College
- Other

- Do you have an affiliation with the legal system?
- Yes
- No

- Have you ever studied Canadian Law?
- Yes
- No
- Unsure

- Are you familiar with content of the Canadian Charter of Rights and Freedoms regarding legal rights upon arrest?
- Yes
- No
- Unsure

- Have you ever been read your legal rights by police?
- Yes
- No
- Unsure
- Prefer to not disclose

Appendix H – RCMP Caution

You are under arrest.

You do not have to say anything unless you wish to do so.

You have nothing to hope from any promise of favour and nothing to fear from any threat whether or not you say anything.

Anything you say may be used as evidence.

It is my duty to inform you that you have the right to retain and instruct counsel of your choice in private and without delay.

Before you decide to answer any question concerning this investigation you may call a lawyer of your choice or get free advice from Duty Counsel.

If you wish to contact Legal Aid duty counsel I can provide you with a telephone number and a telephone will be made available to you.

Link to view: https://www.youtube.com/watch?v=AXP4Iy9AVpg&feature=youtu.be

Appendix I – Simplified Caution

You are under arrest.

You have the right to remain silent. *This means that it is your choice to answer any questions.*

Anything you say may be used as evidence. *This means that if you answer any questions, what you say can be used against you later in court.*

You have nothing to fear from any threats. *This means that I cannot threaten you to get you to answer my questions.*

You have nothing to hope from any favours. *This means that I cannot promise you anything to get you to answer my questions.*

You have the right to talk to a lawyer for advice right away. *This means that you can call your own lawyer OR a free lawyer before I ask you any questions.*

If you want free legal advice now, I will give you a phone number to call. *This means that you can get a phone number from me to call a free lawyer.*

If you are charged with an offence, you can apply for a free lawyer to help with your case. *This means that if you get charged for a crime, you can apply to get a lawyer to help you for free.*

Link to view: https://www.youtube.com/watch?v=n2jwfK5fADM

Appendix J – Informational Caution

You are under arrest.

You have the right to remain silent. *This means that it is your choice to answer any questions.*

If you choose to remain silent, I can still question you. *This means that I can keep asking you questions even if you do not answer.*

Anything you say may be used as evidence. *This means that if you answer any questions, what you say can be used against you later in court.*

You have nothing to fear from any threats. *This means that I can not threaten you to get you answer my questions.*

You have nothing to hope from any favours. *This means that I cannot promise you anything to get you to answer my questions.*

Your silence can not be used against you. *This means that no one can assume you are guilty for not answering my questions.*

You have the right to talk to a lawyer for advice right away. *This means that you can call your own lawyer OR a free lawyer before I ask you any questions.*

If you want free legal advice now, I will give you a phone number to call. *This means that you can get a phone number from me to call a free lawyer.*

This one phone call is the only legal advice you can have now. This means that *you do not have the right to talk to a lawyer again OR have a lawyer with you while I ask you questions.*

If you are charged with an offence, you can apply for a free lawyer to help with your case. *This means that if you get charged for a crime, you can apply to get a lawyer to help you for free.*

Link to view: https://www.youtube.com/watch?v=xOniC30_eXs

Appendix K – Study 3 Informed Consent Form

Convincing Alibis Study
Informed Consent form

UOIT REB #15105
Social Sciences and Humanities
University of Ontario Institute of Technology

RESEARCHERS

Christina J. Connors (PhD Student at UOIT)
Contact: Christina.connors@uoit.ca

Dr. Joseph Eastwood (Full-time Faculty at UOIT)
Contact: Joseph.Eastwood@uoit.ca

PURPOSE OF THIS RESEARCH

You are invited to participate in this research study on alibi generation, deception, and Canadian interrogation Rights. The purpose of this research is to gain further understanding of how Canadian suspects' 1) generate alibis and 2) comprehend cautions (passages of text read by police used to inform people about their legal rights during an investigative interview).

ELIGIBILITY

You can participate in this study if you are a UOIT student aged 18 or over.

WHAT DO I HAVE TO DO?

You are invited to complete an in-person study. The study should take approximately 45 minutes to complete. Participation in this study is completely voluntary.

The study takes place in two phases. The first phase includes a 5-step interview, and the second phase contains a brief survey.

PHASE ONE:

1. In the first phase, you will be told you are implicated as a suspect of interest in a crime.
2. You will be asked to prepare a statement (alibi) of your whereabouts on a specific date. You will be given 5 minutes to do this.
3. In the third step, you will be taken into a room where there will be video and audio equipment, and you will be connected to a non-invasive finger clamp that will continuously measure your skin conductance during the remainder of phase 1. From this point on during Phase 1, the audio and video recording equipment will be on and running.
4. After this, you will be read a caution by the investigating researcher.
5. This same investigator will interview you about your whereabouts during the theft. During this interview, you will be video recorded. You should convince the investigating researcher that you are telling the truth about your alibi. If you can

convince the investigator of your alibi, you will be entered in a draw to win a $50 visa gift card (if you consent to give your email for contact information).

PHASE TWO:

In the second phase, you will be asked to complete a brief online survey on a computer in the same laboratory area containing 1) some True/False statements about investigations, 2) short situations that you will read and evaluate about investigations, 3) questions about your perceptions of suspects, and lastly 4) some demographic questions.

POTENTIAL BENEFITS OF THIS RESEARCH

This study will potentially benefit the research, and possibly legal, community by providing further information on how people generate alibis and comprehend Canadian police cautions. This study could potentially benefit you as a participant by increasing your knowledge about Canadian citizens legal rights upon arrest.

WHAT ARE THE POTENTIAL RISKS FOR PARTICIPANTS?

There are no foreseeable physical, psychological, economic, or social risks to you as a participant in this study. You are not obliged to answer any questions that you find objectionable or which make you uncomfortable. Although there are no foreseeable risks, if at any point in time you have negative feelings of anxiety or arousal, you can withdraw from the study (see below). You are encouraged to seek counseling services through UOIT Student Mental Health Services online (https://studentlife.uoit.ca/mentalhealth/), by phone (905.721.3392), or by email (studentlifeline@uoit.ca)

HOW CAN I WITHDRAW FROM THIS STUDY?

If at any point in time you wish to withdraw from this study you can do so without penalty. If you wish to withdraw from the study, you can let the researcher know at any time during the study before completion. Your data will be destroyed and not used in the study or in any other manner. Please note that upon completion of this study, you are unable to withdraw, as your data will be unidentifiable. If you wish you withdraw and not have your data included in the study, you must withdraw upon reaching the demographic questions at the end. The researcher will make your progress known to you during the study.

WHAT WILL BE DONE WITH MY INFORMATION?

All of your responses, including your demographic information, will be kept confidential. Only the research team and I will have access to your information. Data from the survey will be collected and stored on a password-protected USB thumb drive and stored in a locked drawer in the basement of the UOIT Education Building in Dr. Joseph Eastwood's lab.

As part of phase 2 of this study, you will complete a brief survey which will be hosted on an encrypted website (Qualtrics.com). UOIT has a licensed agreement with Qualtrics. Qualtrics servers are securely hosted in Ireland. Qualtrics ensures protected

transmission of data through servers encrypted using TLS (Transport Layer Security). No individual participant information will be used in the reported findings of this research.

All data will be destroyed at the appropriate date and time.

HOW CAN I GET MORE INFORMATION?

If you have any questions concerning the research study or experience any discomfort related to the study, please contact the principal investigator, Christina Connors, at Christina.Connors@uoit.ca, or the faculty supervisor, Dr. Eastwood, at Joseph.Eastwood@uoit.ca.

Any questions regarding your rights as a participant, complaints, or adverse events may be addressed to Research Ethics Board through the Research Ethics Coordinator – researchethics@uoit.ca or 905.721.8668 x. 3693.

This study has been approved by the UOIT Research Ethics Board REB (#15105) on January 19th, 2019.

I have read and understood the statements above. I have had my questions answered to my satisfaction and I understand that I may ask additional questions at any time. I understand what this study is about and appreciate the risks and benefits. I understand that my participation is voluntary and I can withdraw from this study at any time without penalty. *By checking "I give my informed consent" below, my digital signature indicates my free and informed consent to participate in this research. I understand that the researchers may use this data for secondary analyses. I understand that I have not waived my legal rights.*

I **give my** informed consent. [ ]

I **do not give my** informed consent. [ ]

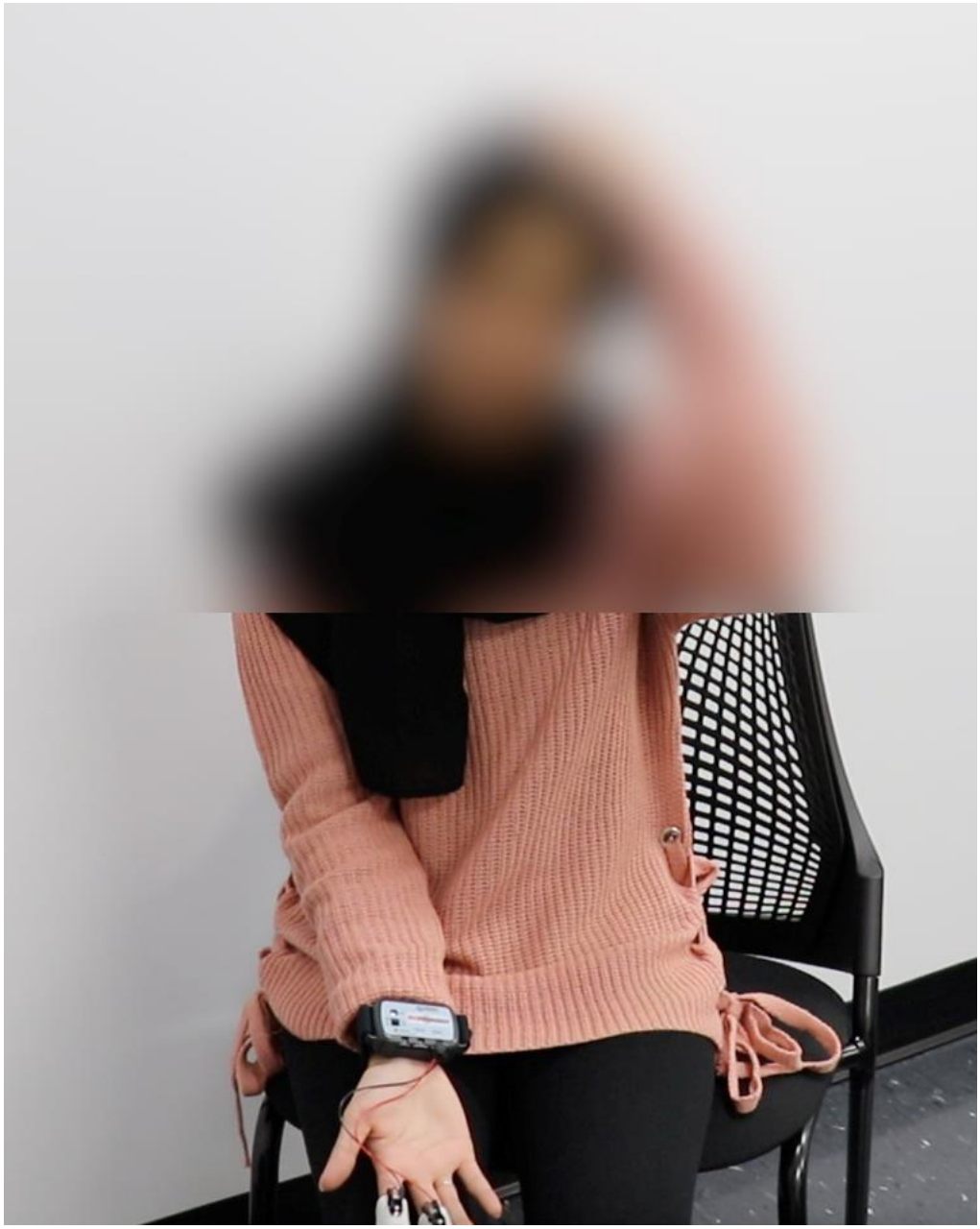
Signed: _____

Date: _____

Witnessed: _____

Date: _____

Appendix L – Biopac EDA Lead Attached to a Study 3 Participant



Appendix M – Study 3 Debriefing Form

UOIT REB #15105

Thank you for your participation in this study! As you may have realized, the true nature of this study was to test comprehension of a Canadian police caution during a mildly stressful social situation to simulate a real interrogation.

Regardless of whether you "convinced" the investigator, you will be automatically entered into the prize draw if you have provided a contact email.

Please note that it is important that you do not talk about this study with anyone else who hasn't done it. If people know what we're studying before they arrive, they may change how they behave, and this would effect the success of the study.

IMPORTANT: If you have experienced any adverse effects as a result of participating, you are encouraged to please contact UOIT Student Mental Health Services online (https://studentlife.uoit.ca/mentalhealth/) or by phone (905.721.3392) or email (studentlifeline@uoit.ca)

If you have any questions, or experienced any discomfort, related to the study, please contact the principal investigator, Christina Connors, at Christina.Connors@uoit.ca, or contact the faculty supervisor, Dr. Eastwood, at Joseph.Eastwood@uoit.ca.

Any questions regarding your rights as a participant, complaints, or adverse events may be addressed to Research Ethics Board through the Research Ethics Coordinator – researchethics@uoit.ca or 905.721.8668 x. 3693.

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