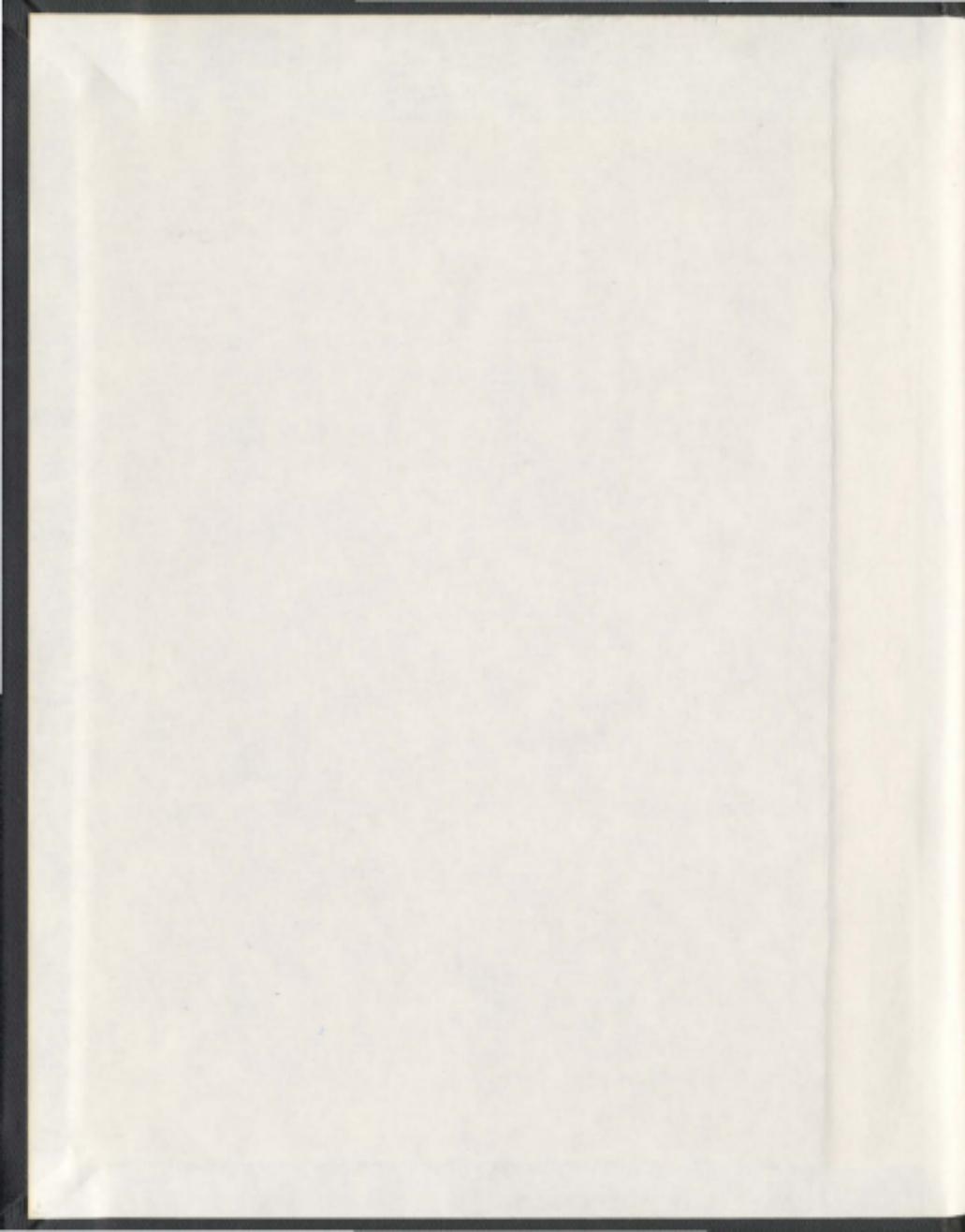
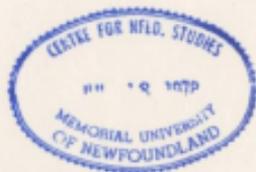


IMPROVING THE COMPREHENSION OF  
CANADIAN POLICE CAUTIONS

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IMPROVING THE COMPREHENSION OF CANADIAN POLICE CAUTIONS

Improving the Comprehension of Canadian Police Cautions

By

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### Abstract

In most English-speaking Western countries, individuals facing a police interview are presented with various legal rights through the delivery of a passage of text known as a police caution (or warning). Research has consistently shown that people struggle to fully understand the legal rights delivered through police cautions. The purpose of the current research was to improve the comprehension of Canadian police cautions by analyzing the cautions currently in use and identifying ways to alter their structure to increase comprehensibility. In Study 1, the complexity of 44 unique Canadian police cautions was assessed using five readability measures (Flesch-Kincaid reading level, sentence complexity, use of difficult words, use of infrequent words, and number of words). Results showed that seven (37%) of the right-to-silence cautions ( $n = 19$ ) and none of the right-to-legal counsel cautions ( $n = 25$ ) reached acceptable cut-off levels for all 5 measures. In Study 2, participants ( $N = 121$ ) were presented with one of three cautions orally and asked to explain its meaning. Despite variations in complexity across the three cautions, participants understood approximately one-third of the information contained in the cautions. In Study 3, the extent to which modifying a police caution using three listenability factors (Instructions, Listing, and Explanation) improved comprehension was examined. Participants ( $N = 160$ ) were presented orally with one of eight cautions and asked to record their understanding of what they heard. Only the Explanations modification produced a significant effect, suggesting that repeating the information

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contained in the caution in different terms increased comprehension. Study 4 assessed the validity of the free recall measures used in the prior studies by presenting participants in one of three conditions (Created/Fully Modified caution, Calgary caution, Baseline/No caution) with an alternate free recall measure, true/false questions, and multiple-choice questions. Results from this study demonstrated the same, albeit smaller, effect as seen in free recall studies, and also identified several components of cautions that appear to be consistently misunderstood across all measures. The implications of this research for psychological research on comprehension of orally-delivered information are discussed, along with practical recommendations for improving the legal-counsel cautions currently used by Canadian police agencies.

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*"...whatever you do, do all to the glory of God." (1 Corinthians 10:31)*

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### **Chapter 1: Introduction**

In order to correct the power imbalance created when an individual is detained by state authorities, individuals facing a police interview in most English-speaking Western countries are afforded the right to remain silent and the right to access legal advice (Greenfield & Witt, 2005). It is imperative that interviewees understand these legal rights fully so that they have the opportunity to either properly exercise or validly waive them (Stuart, 2005). Interviewees are typically made aware of their rights through the oral delivery of a passage of text known as a police caution or warning. Unfortunately, studies conducted across a variety of countries – including Canada – have shown that it is rare for people to fully understand the legal rights delivered through police cautions (Eastwood & Snook, 2009; Fenner, Gudjonsson, & Clare, 2002; Grisso, 1981). This lack of comprehension suggests that interviewees' rights are not being protected properly and that subsequent statements taken by police interviewers may be ruled inadmissible.

As is the case for any orally-delivered information, comprehension of police cautions involves three components – the person sending the message, the person receiving the message, and the message itself. Although psychological research suggests that each of these components can greatly impact comprehension, a review of caution comprehension studies suggests that the factors associated with the sender and receiver cannot explain fully the observed lack of understanding. Therefore, the current project draws upon the relevant psychological literature in order to improve comprehension by altering the message – that is, the content and structure of police cautions.

### 1.1 Legal Rights Afforded to Interviewees

When individuals are detained or arrested and face a police interview, they are automatically placed in a position of disadvantage relative to the authorities (*R. v. Bartle*, 1994). Due to this inherent power imbalance, the majority of English-speaking Westernized countries provide people being questioned about their involvement in a criminal offence with the right-to-legal counsel and the right-to-silence. Although the exact nature of these rights differs across countries, they generally include the right of individuals to contact their lawyer or get access to free legal help if they cannot afford a lawyer, and the right to freely choose whether or not to talk to the police (Stuart, 2005; *Miranda v. Arizona*, 1966; Gudjonsson, 2003). The police must allow interviewees the opportunity to exercise or waive these rights before proceeding with an interview, and in order for the waiving of their rights to be valid, it must be made with full knowledge of the rights being given up.

In Canada, a detainee's legal rights are outlined in the *Canadian Charter of Rights and Freedoms* (1982; henceforth referred to as *The Charter*). The right-to-legal counsel is contained in Section 10 (b) of *The Charter* and states that "Everyone has the right on arrest or detention to retain and instruct counsel without delay and to be informed of that right". As clarified in subsequent cases (i.e., *R. v. Brydges*, 1990; *R. v. Bartle*, 1994), the right-to-legal counsel includes the following four basic rights: (a) to retain and instruct counsel (i.e., lawyer) without delay, (b) to access immediate, temporary, legal advice irrespective of financial status ("duty counsel"), (c) to obtain basic information about how

to access any available services that provide free, preliminary legal advice (e.g., phone number), and (d) upon being charged with a crime, to access legal counsel free of charge where an accused meets prescribed financial criteria set up by provincial Legal Aid plans. The purpose of this right is to provide individuals with the opportunity to receive relevant legal advice with regards to how to act during the upcoming police interview. Any individual arrested or detained by the police must be informed of these rights without delay, and all questioning must cease until the accused either waives these rights or has a reasonable opportunity to exercise them (Department of Justice Canada, 2004).

The right-to-silence is derived from Section 7 of *The Charter*, which 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". Case law dictates that interviewees must be given a free choice about whether or not to speak to the police and that the police cannot interfere with this choice by offering promises or threats in exchange for speaking (see *R. v. Hebert*, 1990). This right protects individuals from being forced to provide self-incriminating evidence, and any refusal to speak to the police cannot be used to infer guilt (*R. v. Chambers*, 1990). Unlike the right-to-legal counsel, however, interviewers are not required to advise interviewees of their right-to-silence upon detention, and do not need an explicit waiver of the right to occur before proceeding with questioning (see *R. v. Papadopoulos*, 2006). It is assumed that if interviewees exercise their right-to-legal counsel, their lawyer will make them aware of their right to remain silent (Stuart, 2005).

As mentioned, interviewees must either waive or exercise their right-to-legal counsel before the interviewer can begin questioning. In order for waivers to be valid, however, interviewees must fully understand their rights, fully understand how they can be exercised, and appreciate the consequences of giving up those rights (*R. v. Bartle*, 1994; *Clarkson v. The Queen*, 1986). As stated in *Korponay v. Attorney General of Canada* (1982), the validity of any waiver "is dependent upon it being clear and unequivocal that the person is waiving the procedural safeguard and is doing so with full knowledge of the rights the procedure was enacted to protect and of the effect the waiver will have on those rights in the process". Thus, failure to ensure comprehension not only means the individuals' rights are not being protected, but can also lead to subsequent statements taken from an interviewee being ruled inadmissible in court (Marin, 2004).

Similar rights are granted to detainees in the United States as well. As originally laid out in *Miranda vs. Arizona* (1966), individuals detained by the police must be made aware of the following four pieces of information: (a) right to remain silent, (b) any statements made could be used as evidence of guilt, (c) right to have an attorney present, and (d) right to counsel for indigent defendants (i.e., attorney can be appointed if suspect cannot afford one; see Grisso, 1981). In addition, some legal scholars and researchers have argued that a fifth piece of information should be included as well – (e) detainees can exercise these rights at any time (Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007). As is the case in Canada, the arresting authority needs to make individuals aware of these rights without delay, and detainees must be given an opportunity to exercise or

waive these rights (Stricker, 1985). In order for a waiver to be valid, the detainee must have full awareness of the rights being waived and the consequences associated with waiving them – the waiver must be made voluntarily, knowingly, and intelligently (*Colorado v. Spring*, 1987; Fulero & Everington, 1995). As further outlined in Grisso (2003; as cited in Greenfield & Witt, 2005), in order for a waiver to be valid, an individual must: (a) understand the words and phrases in the *Miranda* warning, (b) accurately perceive the purposes of the *Miranda* rights, including the nature of the interrogation, the attorney-client relationship, and protection from self-incrimination, and (c) have the capacity to reason about the potential consequences of a waiver or non-waiver decision. A failure of an interviewee to perform these functions can potentially lead to any waiver being ruled invalid, and any statements made may be excluded from future legal proceedings.

In England and Wales, the Police and Criminal Evidence Act and Codes of Practice established that upon being arrested, individuals must first be informed of the following five basic legal rights: (a) their right to remain silent, (b) the right to legal advice, (c) the right to inform someone of their arrest, (d) the right to consult the Codes of Practice which provide additional details regarding their rights, and (e) the right to a copy of the Custody Record (Gudjonsson, 2003). Detainees are typically informed of these rights orally and given a written leaflet to read, known as the Notice to Detained Persons, which further outlines these rights (Gudjonsson, Clare, & Cross, 1992). If it is shown that an interviewee did not understand these rights, any statements taken can be ruled

inadmissible (Gudjonsson, 2003). Similar rights and procedures exist in other countries with Westernized legal systems as well, such as Australia and New Zealand (Gibbons, 2001).

A review of legal rulings from English-speaking Western countries has shown that individuals detained by the police are provided with the right to remain silent and the right to contact legal counsel (e.g., *Miranda vs. Arizona*, 1966; Stuart, 2005). In addition, courts in these countries have consistently ruled that interviewees must be clearly and fully informed of these rights (e.g., *Clarkson v. The Queen*, 1986; *Colorado v. Spring*, 1987). Unless interviewees fully understand their rights, not only are their rights not being properly protected, but any subsequent waivers of these rights can be ruled invalid. Thus, it is in both the interviewee's and the police interviewer's best interest that legal rights are clearly explained and fully understood.

### **1.2 Lack of Comprehension of Legal Rights**

In order to make interviewees aware of their legal rights, police interviewers typically utilize standardized passages of text known as police cautions. Police cautions, known as *Miranda* warnings in the U.S., contain the aforementioned legal rights and are usually delivered orally by the interviewer (Snook, Eastwood, & MacDonald, 2010; Rogers, Harrison, Hazelwood, & Sewell, 2007). Aside from specific situations where the interviewee indicates a lack of understanding, interviewers are not required to confirm comprehension beyond delivering a standard caution (*R. v. Bartle*, 1994). Therefore, it is essential that police cautions are as instructive and clear as possible so that interviewees

can make a fully informed decision regarding whether to exercise or waive their rights. Unfortunately, research from numerous countries has shown consistently that people struggle to comprehend the content of police cautions.

One of the first set of studies in this area was conducted by Grisso (1981) in the United States, who looked at comprehension of juvenile and adult *Miranda* warnings. The juvenile sample ( $n = 431$ ) was recruited from a police detention centre and a school facility, while the adult sample consisted of adult offenders living in a half-way house ( $n = 203$ ) and non-offender adult volunteers ( $n = 57$ ). In order to test comprehension, he constructed three separate measures – the Comprehension of *Miranda* Rights (CMR), the Comprehension of *Miranda* Rights, True or False (CMR-TF), and the Comprehension of *Miranda* Vocabulary (CMV). For the CMR, participants were presented with each of the four sentences of a *Miranda* warning, both orally and in written format, and asked to explain the meaning of the sentence in their own words. Each sentence was scored out of 2, with the maximum obtainable score for the CMR being 8. Results for the juvenile group showed that 20% of participants obtained perfect comprehension scores (i.e., 8 out of 8), while a further 20% scored 4 or below. Approximately 55% of the juveniles scored a 0 on at least one of the four sentences of the warning, indicating no understanding of that component of the warning. The average score on this measure for juveniles was 5.9. Results for the adult group showed that 42% of participants achieved a maximum score of 8 on the measure, with no significant differences in comprehension observed between the two adult groups (i.e., offender vs. non-offender) on this or the other two measures.

Approximately 21% of adult participants scored 4 or less on the CMR, with 23% of participants obtaining a 0 on at least one of the four warning sentences. The average score on this measure for adult participants was 6.8.

The CMR-TF consisted of 12 statements (3 for each sentence of the warning) which were either semantically the same or semantically different than a corresponding sentence from the warning. Participants had to decide whether or not each statement had the same meaning as the corresponding warning sentence, and received 1 point for each correct decision – for a maximum possible total of 12 points. With regards to the juvenile group, approximately 11% of participants achieved the maximum of 12 points, while over 55% of juveniles scored at least a 10 on this measure (it should be noted that only 105 of the total sample of 431 juveniles received this measure due to testing issues in the original study). The average score for the juveniles that received this measure was 9.4. For the adult group, 36% of participants achieved a 12 out 12, with over 76% of the adult participants scoring at least 10 on this measure. The average score for the adult group on the CMR-TF was 10.5.

The CMV consisted of six critical words taken from the Miranda warning (i.e., appoint, attorney, consult, entitled, interrogation, right), which participants were asked to define. Each definition was scored out of two, for a maximum obtainable score of 12 for the CMV. With regards to the juvenile group, only 6% of participants correctly defined all 6 words (i.e., 12 out of 12), with approximately 26% of juveniles scoring 6 or below on the measure. Over 63% of juvenile participants obtained a 0 on least one of the six

word definitions, and the average score for the juvenile group on this measure was 7.9. For the adult group, approximately 14% of participants correctly defined all 6 words, with 60% of adult participants scoring 10 or above on this measure. Approximately 37% of adult participants scored a 0 on at least one of the six word definitions, and the average score for the adult group on this measure was 9.5.

Subsequent studies of *Miranda* warnings have focused primarily on comprehension by vulnerable populations. For example, Fulero and Everington (1995) looked at comprehension of *Miranda* rights in 54 mentally retarded adults. Participants were given the three measures of *Miranda* comprehension devised by Grisso (1981; see above). For the CMR measure, the overall mean comprehension score was 3.3 (out of 8), with 80% of participants scoring a zero on at least one of the four *Miranda* warning components. The average score on the CMR-TF was 6.2 (out of 12), with 57% of participants scoring at or below chance levels on the measure. For the CMV, the average score was 4.2 (out of 12).

A similar study was conducted by O'Connell, Garmoe, and Goldstein (2005) using a sample of 60 adults with mild mental retardation. O'Connell et al. used a revised and updated version of Grisso's (1981) original comprehension measures, which included the addition of a fifth component to the *Miranda* warning. The measures used were the *Comprehension of Miranda Rights - II* (CMR-II), which asks participants to listen to and then paraphrase the meaning of the five components of the warning, and the *Comprehension of Miranda Rights-Recognition-II* (CMR-R-II), which asks participants to

judge whether or not a given sentence is semantically identical to one contained in the warning. Results for the CMR-II showed that the average score was approximately 1.4 (out of 10), with half of the participants scoring zero on all five of the warning components.<sup>1</sup> The average score for the CMR-R-II was approximately 8.3 (out of 15), and only 2% of participants scored significantly above chance levels on this measure. A third study by Rogers, Harrison, Hazelwood et al. (2007) with a sample of 107 mentally disordered defendants found that approximately 15% of participants showed good understanding (understood >70% of information), while approximately 48% of the participants understood less than half of the information in the warnings. Taken together, these results suggest that mentally retarded and disordered adults do not have the level of competency needed to validly waive their rights, as presented in *Miranda* warnings.

In addition to vulnerable adults, research has also assessed *Miranda* comprehension within juvenile samples. In 2005, Viljoen and Roesch presented Grisso's (1998) *Miranda* scales to 152 juveniles in a detention facility ( $M_{age} = 14.5$  years). These scales included the original three measures discussed above (i.e., CMR, CMR-R, CMV); along with a fourth measure which assesses the appreciation of legal rights using several vignettes about legal scenarios (Function of Rights in Interrogation; FRI). The FRI consists of three subscales: Nature of Interrogation, Right to Counsel, and Right to Silence. The purpose of the vignettes is to assess whether or not individuals can

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<sup>1</sup> In order to calculate these values, data were averaged across groups with slightly unequal sample sizes. Therefore, the end values reported in this document are not exact but close approximations.

appreciate the various implications of waiving their rights. Participants scored an average of approximately 5 (out of 8) on the CMR, approximately 8.8 (out of 12) on the CMR-R, and approximately 7.3 (out of 12) on the CMV. The average scores for the Nature of Interrogation, Right to Counsel, and Right to Silence subscales were approximately 9.1, 7.3, and 4.9, respectively (all out of 10). The results, combined with Grisso's (1981) findings on juveniles' comprehension of Miranda warning, suggests that juvenile offenders are unlikely to fully understand their legal rights in an interview situation.

Studies conducted in the United Kingdom have also shown that comprehension of police cautions is low. As mentioned, detainees are typically informed of their rights orally, and then provided with a copy of the Notice to Detained Persons (Notice), which is a written document that reiterates and further explains the detainee's legal rights that were originally delivered orally by the interviewer. In 1991, Gudjonsson measured comprehension of the Notice using a sample of 15 offenders ( $M_{IQ} = 82$ , Range = 63 to 98). Participants were given an opportunity to study the document, and then each of the 11 sentences of the Notice was slowly read out to them with the Notice in front of them. After each sentence was read, participants were asked to provide the meaning of the sentence. Even under these ideal conditions, participants, on average, correctly understood 6.5 of the 11 sentences, with only one participant understanding every sentence. A second study, which employed methodology similar to Gudjonsson (1991), analyzed understanding of the Notice using a sample of 20 individuals with IQ's in the normal range and 20 individuals with a mild mental handicap (Clare & Gudjonsson,

1991). Although overall comprehension values were not provided, the authors concluded that some parts of the Notice were too complex to understand even for people with average intellectual ability, and this difficulty was further pronounced for individuals with mental impairments. The Notice was revised shortly after these two studies, and the comprehensibility of the new Notice was subsequently tested by Gudjonsson et al. (1992). The Notice was first read out in its entirety to each participant ( $n = 31$ ). Each sentence was then read out individually while the participants followed along on their own copy of the document. After each sentence was read aloud, participants were asked to explain the meaning of what they had just heard. The percentage of participants who understood the various sentences ranged from 23% to 77%, with an average of only 41% of the sentences being understood fully by all participants.

Researchers have also looked specifically at the right-to-silence caution portion of the Notice, which consists of three sentences. Gudjonsson and Clare (1994) measured comprehension of the right-to-silence caution in three groups – 45 college students, 20 individuals with a learning disability, and 12 patients in a forensic mental health facility. The caution was first presented orally in its entirety and participants were asked to explain the meaning of the caution. Participants were then provided with a copy of the caution, and asked to explain the meaning of each sentence in turn (each sentence was also read aloud for participants in the “learning disability” and “forensic patient” groups). When the caution was presented orally in its entirety, as it would be in a typical police interview, only 7% of the student group and no participants in the other two groups were

able to correctly explain the entire meaning of the caution. When participants were given a copy of the caution and asked about the sentences individually, 58% of students fully understood the caution, compared to 21% and 15% for the forensic patient and learning disability groups, respectively.

A similar study was conducted in 1995, using a revised version of the silence caution (Shepherd, Mortimer, & Mobasher, 1995). Shepherd et al. first presented participants ( $n = 109$ ) with the caution orally in its entirety and assessed comprehension, and then presented and assessed comprehension of each sentence individually. When presented in its entirety, 27% of participants understood the first sentence, with 13% and 34% of participants comprehending the second and third sentences, respectively. When presented sentence-by-sentence, approximately 90% of participants understood both the first and the third sentence, while 40% understood the second sentence.

Clare, Gudjonsson, and Harari (1998) examined caution comprehension using a college student group ( $n = 72$ ), a general public group ( $n = 15$ ), and a police officer group ( $n = 21$ ). Using the same methodology as Gudjonsson and Clare (1994), they found that approximately 8% of the student and general public groups correctly explained the caution when presented orally in its entirety, compared to 48% of the police officer group. When presented in sentence-by-sentence written format, the percentage of participants who explained all the information contained in the three sentences of the caution correctly ranged from 13% for the general public group to 86% for the police officer group.

A similar study conducted by Fenner et al. (2002) using a suspect group ( $n = 30$ ) and a general public group ( $n = 31$ ) found that none of the participants correctly explained all the information contained in the caution when it was presented orally in its entirety. When presented in the sentence-by-sentence written format, 10% of the suspect group and 13% of the general public group showed full understanding of the rights contained in the silence caution. Similar results have been found for the Scottish right-to-silence caution as well. Cooke and Philip (1998) presented the Scottish silence caution orally in its entirety to a sample of young offenders ( $n = 100$ ). Results showed that only 11% of participants had complete understanding of the caution, with 23% showing no understanding.

Similar to studies in other jurisdictions, research in Canada has also shown that the comprehension of Canadian cautions is lacking. In a study by Abramovitch, Higgins-Biss, and Biss (1993), comprehension of cautions among juveniles was examined by first reading each caution aloud and then presenting juveniles with a written version. After the caution was presented in the two formats, participants were asked to repeat each caution in their own words. Their results showed that 88% of participants had full or partial understanding of the right-to-silence caution and 53% had full or partial understanding of the right-to-legal counsel caution. Unfortunately, the study did not separate out the percentage of individuals who fully understood the right-to-silence caution from those who partially understood it. Another study, which reduced each caution into a single sentence and read the sentence aloud to a sample of juveniles, showed that 67% and 57%

of juveniles fully understood the right-to-silence and right-to-legal counsel cautions, respectively (Abramovitch, Peterson-Badali, & Rohan, 1995).

In order to further test the comprehension of Canadian police cautions, Ogloff and Olley (1992) created the Test of Charter Comprehension (TOCC). The TOCC contains three sections, and closely mirrors the measures created by Grisso (1981) to test comprehension of *Miranda* warnings. In Section 1 of the TOCC, participants were presented with five sentences from a police caution one at a time, both orally and in written format, and asked to explain the meaning of the sentence in their own words. Each sentence was given a score from zero (no understanding) to two (complete understanding), for a maximum possible score of ten on this section. Section 2 consisted of the five police caution sentences each being matched with two comparison sentences, and participants were asked to decide whether or not each of the comparison sentences meant the same thing as the caution sentence. One point was given for each correct answer, for a maximum possible score of ten on this section. In Section 3, participants were presented with ten words from the police caution (i.e., arresting, Counsel, duty, evidence, instruct, lawyer, legal advice, obliged, retain, right) and asked to explain what the word meant in their own words. Each word definition was given a score from zero (completely incorrect) to two (completely correct), for a maximum possible score of twenty on this section.

In one of the few large-scale studies that utilized the TOCC, Olley (1998) administered the TOCC to a sample of 90 members of the general public and 126 male

inmates. Overall TOCC scores ranged from 20.84 to 27.42 (out of 40), with lower scores seen for inmates with a history of mental illness ( $M = 20.84$ ) and individuals who spoke English as a second language ( $M = 23.83$ ). Members of the general population who had English as their first language scored highest across the three sub-sections (6.14, 8.61, 12.49, respectively), while inmates with a history of mental illness scored the lowest (4.95, 7.70, 8.18, respectively). A second study using a sample of 102 male inmates found that overall TOCC scores ranged from 28.87 for non-disordered offenders to 23.17 for offenders with intellectual disabilities (Olley, 1998). Non-disordered offenders also scored significantly higher on the three sub-sections (7.48, 9.13, 12.25) compared to the intellectually disabled group (6.07, 8.07, 9.03). These findings match the results from a preliminary examination of the TOCC by Olley (1993), and suggest that comprehension of legal rights is low even when presented to high-functioning individuals under ideal conditions (e.g., caution presented sentence-by-sentence in written format, in a low stress situation). In addition, individuals with cognitive deficits (e.g., mental illness, intellectual disabilities) appear to be particularly at risk for misunderstanding their legal rights as delivered through police cautions.

More recently, a study by Moore and Gagnier (2008) explored the comprehension of a right-to-silence caution using a sample of university students ( $n = 93$ ). Participants were presented with either a standard silence caution or one with minor modifications designed to increase comprehension. The cautions were presented orally in their entirety via a video recording, and comprehension of the cautions was then assessed via free

recall. Results showed no difference in comprehension between cautions with the modifications and those without the modifications. Across all cautions, 43% of participants showed full understanding of the information in the cautions. In addition, 15% of participants did not correctly explain any of the content of the caution.

A study by Eastwood and Snook (2009) examined comprehension of both a right-to-silence and right-to-legal counsel caution using a sample of university students ( $n = 56$ ). Each caution was first presented orally in its entirety, followed by its presentation in a sentence-by-sentence written format, and participants were asked to record their understanding of the presented information. For the silence caution, when presented orally in its entirety, only 4% displayed full comprehension and 13% understood over half of the caution. Similarly, only 7% displayed full comprehension of the legal counsel caution and 24% understood over half of the information contained in the caution. When presented in sentence-by-sentence written format, 48% of participants displayed full comprehension and 63% understood over half of the information in the silence caution. A similar increase was seen for the legal counsel caution, with 32% of participants displaying full comprehension and 75% understanding more than half of the caution.

The consistent finding from the studies reviewed above is that people struggle to comprehend their legal rights as delivered through police cautions. When cautions were presented as they would be in an actual police interview (i.e., orally in their entirety), people rarely fully understood the information in the cautions – with average comprehension levels often falling below 50%. Performance did typically increase when

cautions were presented in a manner designed to maximize comprehension (i.e., sentence-by-sentence written format), however comprehension levels remained well below 100%. This was found across a wide variety of populations, ranging from police officers to individuals with mental impairments. However, this lack of comprehension was shown to be greater for vulnerable populations, which are overrepresented in criminal populations (O'Connell et al., 2005; Rogers, Harrison, Hazelwood et al., 2007). This suggests that the vast majority of individuals facing a police interview do not fully understand their rights, and are therefore unable to either properly exercise or validly waive their rights. The current mismatch between the requirement of full understanding by the courts and the observed lack of comprehension highlights a clear need to fix this important problem.

### **1.3 Comprehension of Orally-Delivered Information**

The comprehension of police cautions, and orally-delivered information in general, involves three basic components - the person sending the message, the person receiving the message, and the message itself. Any difficulties encountered with these three components can ultimately lead to diminished comprehension. For example, the sender may deliver the message too quickly, the receiver may not properly attend to the message, or the message itself may be overly complex. Psychological research on these three components is reviewed in order to identify potential explanations for, and solutions to, the current lack of caution comprehension. Although the sender and receiver components may impact comprehension in real-world settings, they do not appear to be able to fully explain the lack of comprehension seen in previous police caution research.

Therefore, the purpose of the current project is to focus on the message component of the process (i.e., the police caution), and use findings from the psychological literature to improve comprehension by altering the structure and content of Canadian police cautions.

In the case of police cautions, the first step in the comprehension process involves a police interviewer (i.e., the sender) orally delivering the message. One basic "sender" variable that has been shown to impact comprehension is the speed at which the message is delivered. Research suggests that the upper range of acceptable speech rates is between 150 and 200 words per minute; with comprehension levels dropping off sharply when speech rates exceed the upper limit of this range (see Carver 1982; Jester and Travers 1966). At least one study that looked at actual police interviews revealed that police interviewers frequently exceed this rate when delivering the caution – in some cases even reaching 300 wpm (Snook et al., 2010). In addition to speed, the message must also be delivered clearly and audibly. Variables such as unfamiliar accents, lowered volume, competing noise, and so on can potentially decrease the audibility and clarity of the message, thus negatively impacting comprehension (Rubin, 1987).

The second step in the caution comprehension process involves the interviewee (i.e., the receiver) hearing and processing the message. In order to comprehend the message, the receiver must first attend to the message and then retain and rehearse it while processing the message's meaning (see Neath & Surprenant, 2003). There are many potential factors that could interfere with attention and rehearsal processes, such as distracters in the environment diverting attention from the message. With regards to

police interviews, the uncertainty (e.g., unknown length of interview) and lack of control (e.g., inability to leave) faced by interviewees in a situation where much is at stake can create high levels of stress and anxiety (Irving & Hilgendorf, 1980). This stress has the potential to impact interviewees' ability to understand and act upon their legal rights (see Gudjonsson, 2003). Vulnerable people such as those with mental deficits (e.g., low IQ, learning disabilities) are also overrepresented in offender populations, and these individuals would presumably have heightened difficulties in attending to and processing the legal information in cautions. In addition, many individuals without deficits may undergo police interviews with temporarily reduced mental states (e.g., intoxicated, exhausted).

The final component of the comprehension process is the message itself (i.e., the police caution). Message variables such as length, sentence complexity, wording, overall reading level, and complexity of the legal principles themselves can all potentially impact comprehension. Lengthy messages can exceed an individual's ability to retain the message in working memory (Baddeley, 1994). The use of linguistically complex sentences (e.g., multiple subordinate clauses) and infrequent or unfamiliar words can reduce comprehension as well. In addition, even if the message is composed in a simplistic manner, the underlying legal principles contained in cautions may still be too difficult to understand for the majority of individuals.

Although sender variables may impact comprehension in real-world settings, they are not able to explain the lack of comprehension seen in previous caution studies. For

example, in these studies the caution is typically presented slowly and clearly in order to maximize comprehension (e.g., Clare et al., 1998; Eastwood & Snook, 2009). Therefore the message was sent in a relatively constant and ideal manner, which gives these sender variables limited opportunity to impact comprehension. Furthermore, non-verbal sender variables that may impact comprehension in real-world settings (e.g., intimidating police interviewer) are not typically present in laboratory-based caution studies. Although sender variables are not often explicitly recorded in caution comprehension studies (e.g., speed at which caution was delivered), it is doubtful that they can account for the consistent low levels of comprehension.

Receiver variables may partially explain the lack of caution comprehension. Many of the studies used samples of people with various mental and cognitive deficits, and comprehension was extremely low for these individuals (e.g., Gudjonsson & Clare, 1994; O'Connell et al., 2005). However, comprehension was also low with highly educated and experienced samples such as university students and police officers (e.g., Clare et al., 1998; Eastwood & Snook, 2009). The cautions were also typically presented in very controlled and non-threatening environments, which suggests that the stress present in actual interview settings was unlikely to be a factor in these studies and that distracters were unlikely to be present during presentation of the caution. With regards to memory, many of the studies presented the cautions orally in their entirety, which could tax the ability of working memory and lead to decreased comprehension. However, even when the cautions were presented in a manner that should help alleviate the pressure on

memory functions (i.e., sentence-by-sentence written format), comprehension levels were still well below 100%. Taken together, this suggests that receiver variables also do not fully explain the observed lack of comprehension.

It appears that the message variable may account for much of the observed lack of caution comprehension. Researchers have argued that typical police cautions are grammatically and linguistically complex, and often appear to be constructed to satisfy legal requirements rather than to ensure comprehension (Cooke & Philip, 1998; Gibbons, 2001). For example, research from the U.S. has revealed that many *Miranda* warnings contain complex sentence structure, contain a number of infrequent and difficult words, and have overall reading levels at a high school level or greater (Rogers, Harrison, Shuman, et al., 2007; Rogers, Hazelwood, Sewell, Harrison, & Shuman, 2008). Researchers in the U.K. have also raised concerns about the complexity of the right-to-silence caution, as the subordinate clauses and unfamiliar words and phrases contained in the caution are likely to hamper comprehension (Fenner et al., 2002; Kurzon, 1996). Similar concerns about the complex nature of police cautions have been raised in Australia as well (Gibbons, 2001). The consistent finding regarding the complex structure of cautions suggests that the message variable may account for much of the observed lack of comprehension.

#### **1.4 The Current Research**

The purpose of the current project was to increase comprehension by analyzing and altering the complexity of Canadian police cautions. The decision to focus on the

message variable (i.e., the caution) was based on two major reasons. First, the research to date in the field has demonstrated that even relatively high-functioning individuals under ideal conditions struggle to comprehend cautions fully. This suggests that the cautions themselves are relatively incomprehensible, a suggestion that is supported by research demonstrating the complex structure of many cautions. Altering the cautions to make them more comprehensible would appear to be the first step towards increasing caution comprehension. The second reason relates to the nature of the message variable. In contrast to the first two variables, which are dynamic, the message variable is static. That is, sender and receiver variables are constantly changing and are typically outside the researcher's or practitioner's control, while the content of the message can remain consistent and controlled. Therefore, simplifying the structure of cautions to increase comprehensibility would appear to be the most direct and effective way to ensure comprehension across a range of individuals and situations. Although the sender and receiver variables undoubtedly have an impact in actual police interview situations, and research is needed to better understand these impacts, the comprehensibility of the cautions themselves (i.e., the message) first needs to be improved before considering the potential impact of the other two variables.

### Chapter 2: Study 1

As mentioned in chapter 1, one reason offered to explain the poor comprehension of police cautions pertains to the overly complex content and structure of the cautions (see Fenner et al., 2002). For example, the complexity of the Notice to Detained Persons in England and Wales was assessed using the Flesch Formula (Flesch, 1948), which uses sentence length and syllable count to produce a score for a given piece of text ranging from 0 (very difficult) to 100 (very easy). Gudjonsson et al., (1992) found the Flesch score for the Notice was 56, which is considered "fairly difficult". Researchers have also argued that comprehension of the caution portion of the Notice may be reduced as it contains legal terms that are rarely found in typical speech or have a different meaning within a legal context (e.g., record, defence; Fenner et al., 2002). Furthermore, the second and third sentences are relatively lengthy and contain multiple embedded clauses (e.g., joined or begun by *or*, *if*, *so*, *and*, *that*, *when*, and *but*), which may also impede comprehension (Shepherd & Mortimer, 1995). The Scottish caution has also been criticized for containing difficult words and lengthy sentences with multiple clauses (Cooke & Philip, 1998). In addition, Gibbons (1990) analyzed cautions from Australia and found them to be grammatically complex and contain legal terminology as well. Although the cautions in these studies were not always analyzed in a systematic fashion, the consistent message is that the structure of cautions may interfere with people's ability to comprehend the information contained in the cautions.

In the U.S., researchers have studied the complexity of *Miranda* warnings in a more systematic fashion through the use of various readability measures. In one of the first of such studies, Greenfield, Dougherty, Jackson, Podboy, and Zimmerman (2001) analyzed the grammatical complexity of 21 *Miranda* warnings being used in New Jersey. They used the Flesch-Kincaid (FK) readability measure, which uses sentence length and average number of syllables per word to indicate the level of education needed to comprehend a passage of text (Flesch, 1950). Greenfield and colleagues found that the *Miranda* warnings were written, on average, at a 7th grade level, and ranged from 4th grade all the way up to second-year college education levels. Similarly, Helms' (2003) analysis of 53 *Miranda* warnings from throughout the United States found that a 7th grade education level would be required to understand the warnings. A later study by Helms (2007) examined the individual sections of 56 adult *Miranda* warnings, and found that the FK scores for the sections ranged from 3rd grade to 9th grade reading levels.

In the most comprehensive study of *Miranda* warnings, Rogers, Harrison, Shuman, et al.'s (2007) analysis of 560 unique *Miranda* warnings showed substantial variability in warning length and reading complexity. The length of the warnings varied from 34 to 227 words (average word length = 93), with the majority exceeding the amount of information that can be processed adequately in working memory (see Baddeley, 1994). They also found that FK scores ranged from a 3rd grade level to requiring post-college education. More recently, Rogers and his colleagues (2008) analyzed an additional 385 warnings and replicated their past findings on word length and

reading complexity levels. In addition to word length and FK scores, they also analyzed the cautions using the Grammatik computer program to assess sentence complexity and measured the extent to which the cautions contained difficult and infrequent words. Results showed that the majority of warnings had a relatively high level of sentence complexity and often contained low frequency words (e.g., indigent, stipulating) and difficult words (e.g., coerce, renounce; see Rogers, 2008, for overview of research on *Miranda* comprehension). The underlying assumption of this research is that because cautions contain a number of complex elements (e.g., difficult words, complex sentences), they are difficult to comprehend; this assumption appears to be supported by the research on caution comprehension (e.g. Grisso, 1981; Eastwood & Snook, 2009).

### 2.1 Study 1

The concerns outlined by Rogers and his colleagues regarding the complexity and subsequent lack of comprehension of *Miranda* warnings are directly relevant to Canada. To reiterate, several studies have demonstrated an apparent lack of comprehension of Canadian police cautions (Eastwood & Snook, 2009; Moore & Gagnier, 2008). To date, however, no research has examined the complexity of cautions currently being used by Canadian police organizations. In order to reduce complexity, and presumably increase the comprehensibility of *Miranda* warnings, Rogers et al. (2008) recommended four criteria that they should meet: (a) Have a Flesch-Kincaid reading level of  $\leq 6.0$ , (b) have a sentence complexity rating of  $\leq 40$  on Grammatik, (c) avoid difficult words ( $\geq 10^{\text{th}}$  grade reading level), and (d) avoid infrequent words ( $< 1$  occurrence per 1 million words).

Rogers, Harrison, Shuman, et al. (2007) also recommended that warnings should not exceed 75 words in length. The aforementioned cut-off levels for the five readability measures create five criteria upon which to assess the complexity of police cautions.

In Study 1, the reading complexity of Canadian police cautions was measured by utilizing the five criteria recommended by Rogers, Harrison, Shuman, et al. (2007) and Rogers et al. (2008). These measures were chosen because they provide a systematic and concrete way of assessing complexity. Furthermore, they subsume the majority of concerns raised by researchers outside of the U.S. as discussed above (e.g., complex sentences, legal terminology).

## 2.2 Method

**2.2.1 Sample.** Police caution cards, documenting right-to-silence and right-to-legal counsel, were requested from the 86 Canadian police organizations (see [www.safecanada.ca](http://www.safecanada.ca) for a complete list of organizations). One federal, 2 provincial, and 35 municipal/regional police organizations responded to the request (response rate = 44.2%). A total of 38 English versions of the right-to-silence caution and 38 English versions of the right-to-legal counsel caution were obtained. Each participating police organization provided a copy of both cautions. A total of 12 (response rate = 50%) cautions were obtained from British Columbia, 10 (83%) from Alberta, 4 (40%) from Saskatchewan, 4 (33%) from Manitoba, 28 (33%) from Ontario, 4 (33%) from Quebec, 2 (100%) from Prince Edward Island, 2 (33%) from New Brunswick, 6 (75%) from Nova Scotia, 2 (100%) from Newfoundland and Labrador, and 2 (100%) from the federal

agency. Combining the silence and legal counsel cautions resulted in a total of 76 cautions.

**2.2.2 Complexity analysis.** All cautions were typed into a word processor by both the author and another researcher and compared for accuracy. Any typographical discrepancies between the two entries were resolved prior to analysis. The number of syllables, words, and sentences per passage were calculated using Readability Plus (2008). In 55 of the 76 cautions, there was a blank space for a police officer to insert the type of criminal charge or reason for the detention. To ensure a conservative measure of complexity, the blank space was replaced with the one syllable word "a". The telephone numbers that were included in 13 of the 76 cautions (17%) were converted from figures to words. Given the possibility that police organizations in different jurisdictions may use identical cautions, the content and wording of all obtained cautions were compared against one another. Results showed that 19 of the 38 right-to-silence cautions (50%) were unique and 25 of the 38 (64%) legal counsel cautions were unique. Subsequent analyses were conducted on the unique cautions.

The complexity of each caution was assessed in the following ways:

1. *Flesch-Kincaid (FK)*. The FK formula estimates the grade level needed for comprehension of a passage of text (see Flesch, 1950)<sup>1</sup>. The formula, which uses sentence length and average number of syllables per word, predicts the grade level at which

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<sup>2</sup> The exact formula for calculating the FK score of a document is:  $FK = (0.39 \times \text{average number of words used per sentence; ASL}) + (11.8 \times \text{average number of syllables per word; ASW}) - 15.59$ .

individuals in that grade would understand 75% of the information in a particular passage of text (see DuBay, 2004). For example, an FK score of 6 for a passage of text indicates that individuals with a 6<sup>th</sup> grade reading ability should be able to comprehend at least 75% of the information contained in that passage of text. This measure has been deemed a reliable measure of reading comprehension (Paasche-Orlow, Taylor, & Brancati, 2003).

2. *Grammatik sentence complexity.* Grammatik is a program contained in Corel WordPerfect software that provides a measure of sentence complexity. The complexity score is derived from the number of words and clauses in sentences (see Rogers et al., 2008). Scores can range from 0 to 100, with increasing scores corresponding to increasing sentence complexity.

3. *Word analysis.* Word analysis consists of analyzing the (a) frequency level of each unique word contained in the cautions, (b) difficulty level of each unique word contained in the cautions, and (c) the number of words in each caution. Each word from each silence and legal counsel caution was entered into a cell in a Microsoft Excel spreadsheet. The list of words was sorted alphabetically and all redundant words were removed. This process produced 187 unique words. The frequency level of each word was determined by using two word frequency guides, one from the U.S. (Zeno, Ivens, Millard, & Duvvuri, 1995) and one from Britain (Leech, Rayson, & Wilson, 2001). A word was classified as infrequent if at least one of the two guides indicated that the word occurred less than once in every million words. The difficulty level was determined by calculating the approximate grade level needed to understand each unique word (see Dale

& O'Rourke, 1981, for details on estimating word difficulty). For words with more than one definition, the grade level that corresponded to the definition of the word contained in the caution was used. For example, for the word "right", the definition pertaining to legal guarantees was used, as opposed to other definitions referring to directionality, being correct, and so on.

### 2.3 Results

**2.3.1 Right-to-silence.** Table 2.1 contains the results for each unique right-to-silence caution for each of the readability measures. As can be seen, 79% ( $n = 15$ ) of the cautions reached an acceptable FK score (i.e.,  $\leq 6.0$ ). The average FK score for the right-to-silence cautions was 5.39 ( $SD = 1.10$ ). The FK scores ranged from 4.00 for the Lethbridge Regional Police Service and Blood Tribe Police Service cautions to 8.40 for the British Columbia caution.

All cautions met the acceptable cut-off for sentence complexity (i.e.,  $\leq 40$ ). The average Grammatik score was 21.16 ( $SD = 5.90$ ), with scores ranging from 14 (Bridgewater Police Service et al. grouping and the Blood Tribe Police Service) to 36 for the Gatineau Police Service.

Table 2.1  
*Complexity Measures for Right-to-Silence Cautions*

Police Organization	Complexity Measure				Total Number of Criteria Met
	Flesch-Kincaid Reading Level	Sentence Complexity	Avoids Difficult Words	Avoids Infrequent Words	Number of Words
	≤ 6.0	≤ 40	≥ 10th grade	Words	< 75
			reading level)	(>1/million)	
Halifax Regional Police	Y (5.2)	Y (17)	Y	Y	Y (31)
					5

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Royal Newfoundland Constabulary	Y (5.8)	Y (20)	Y	Y	Y (36)	5
Amherst Police Department	Y (5.8)	Y (20)	Y	Y	Y (37)	5
Saint John Police Force	Y (5.5)	Y (20)	Y	Y	Y (39)	5
Charlottetown Police Department	Y (5.1)	Y (20)	Y	Y	Y (40)	5
Prince Albert Police	Y (5.1)	Y (20)	Y	Y	Y (40)	5
Service/Saskatoon Police						
Service/Winkler Police Service						
Royal Canadian Mounted Police	Y (5.3)	Y (23)	Y	Y	Y (47)	5
The Blood Tribe Police Service	Y (4.0)	Y (14)	Y	N (1)	Y (35)	4
Bridgewater Police	Y (4.2)	Y (14)	Y	N (1)	Y (41)	4
Service/Brockville Police						
Service/Cornwall Community Police						

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Service/Greater Sudbury Police									
Service/London Police									
Service/North Bay Police									
Service/Orangeville Police									
Service/Ottawa Police									
Service/Thunder Bay Police									
Service/York Regional Police									
Medicine Hat Police Service	Y (5.2)	Y (17)	Y	N (1)	Y (31)	4			
Halton Regional Police Service	Y (4.8)	Y (18)	Y	N (1)	Y (32)	4			
Calgary Police Service	Y (4.4)	Y (18)	Y	N (1)	Y (33)	4			
Lethbridge Regional Police Service	Y (4.0)	Y (18)	Y	N (1)	Y (36)	4			
Hamilton Police Service/Niagara	Y (4.9)	Y (20)	Y	N (1)	Y (38)	4			

Regional Police Service/Ontario

Provincial Police/Peel Regional

Police

Edmonton Police Service	N (6.3)	Y (25)	Y	N (1)	Y (28)	3
British Columbia <sup>a</sup>	N (8.4)	Y (28)	Y	N (1)	Y (17)	3
Montreal Police Service	Y (5.0)	Y (34)	N (1)	N (1)	Y (55)	3
Winnipeg Police Service	N (7.3)	Y (20)	N (1)	N (2)	Y (39)	2
Gatineau Police Service	N (6.1)	Y (36)	Y	N (1)	N (76)	2

Note. a = all cautions collected from British Columbia as they were identical (Combined Organizations, Delta, Nelson, Saanich, Victoria, West Vancouver). The value contained inside each bracket represents the raw score for that measure of reading complexity.

Thirty-seven percent ( $n = 7$ ) of the cautions did not contain any difficult words (i.e.,  $\geq 10$ th grade).<sup>3</sup> The average number of difficult words per caution was 0.68 ( $SD = 0.58$ , Range: 0 - 2). The caution with the most difficult words was from the Winnipeg Police Service. Only the caution from the Montreal Police Service contained a low frequency word (i.e., occurring  $< 1$ /million). All but one caution met the acceptable cut-off for word length (i.e.,  $< 75$  words). The average word length was 38.47 ( $SD = 11.89$ ) and ranged from 17 words for the British Columbia caution to 76 words for the Gatineau Police Service.

A total of 7 (37%) of the 19 cautions met all 5 of the criteria, 7 (37%) met 4 of the 5 criteria, 4 (21%) met 3 of the criteria, and 1 (5%) met 2 of the criteria.

**2.3.2 Right-to-legal counsel.** Table 2.2 contains the scores for each unique right-to-legal counsel caution for each readability measure. Thirty-six percent ( $n = 9$ ) of the cautions met the acceptable FK score ( $\leq 6.0$ ). The average FK score was 6.45 ( $SD = 1.32$ ), with scores ranging from 4.30 for the Bridgewater Police Service/York Regional Police cautions to 8.50 for the cautions used by the Calgary Police Service and the Royal Newfoundland Constabulary (RNC).

Sixty percent ( $n = 15$ ) of the cautions did not exceed the acceptable level of

<sup>3</sup> Following is the list of difficult words that appeared in the cautions (percentage of 44 unique cautions containing that word is in parentheses): *retain* (57%), *counsel* (50%), *offence* (34%), *obliged* (23%), *bound* (5%), *commission* (2%), *criteria* (2%), *subsequently* (2%), *access* (2%), *eligible* (2%), and *video* (2%). The following is the list of low-frequency words that appeared in the cautions (percentage of 44 unique cautions containing that word is in parentheses): *arresting* (43%), *toll-free* (9%), *detained* (5%), and *non-business* (5%).

Table 2.2

*Complexity Measures for Right-to-Legal Counsel Cautions*

Police Organization	Complexity Measure				Total Number of Criteria Met
	Flesch-Kincaid Reading Level	Sentence Complexity	Avoids Difficult Words	Avoids Infrequent Words	
	≤ 6.0	≤ 40	(≥ 10th grade reading level)	Number of Words <75	
Charlottetown Police Department	Y (4.8)	Y (26)	N (2)	N (2)	Y (52)
					3

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Prince Albert Police Service/Saskatoon Police Service	Y (4.8)	Y (31)	N (2)	N (2)	Y (73)	3
Hamilton Police Service	Y (4.5)	Y (36)	N (2)	N (2)	Y (28)	3
Brockville Police Service/North Bay Police Service	Y (4.6)	Y (25)	N (3)	N (2)	N (97)	2
Montreal Police Service	N (7.2)	Y (27)	N (2)	N (2)	Y (65)	2
Bridgewater Police Service/York Regional Police	Y (4.3)	Y (27)	N (3)	N (2)	N (76)	2
Saint John Police Force	Y (5.0)	Y (31)	N (3)	N (3)	N (133)	2
Cornwall Community Police Service	Y (5.2)	Y (39)	N (2)	N (3)	N (119)	2
Peel Regional Police	Y (5.9)	Y (40)	N (3)	N (3)	N (113)	2
Winkler Police Service	N (7.1)	Y (33)	N (3)	N (1)	N (111)	1

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Royal Newfoundland Constabulary	N (8.5)	Y (34)	N (6)	N (1)	N (77)	1
British Columbia *	N (6.2)	Y (36)	N (2)	N (2)	N (103)	1
Amherst Police Department	N (7.7)	Y (38)	N (2)	N (2)	N (119)	1
Winnipeg Police Service	N (8.0)	Y (39)	N (3)	N (1)	N (101)	1
London Police Service/Ontario	Y (5.8)	N (42)	N (3)	N (3)	N (112)	1
Provincial Police						
Gatineau Police Service	N (7.7)	N (59)	N (2)	N (1)	Y (68)	1
Halifax Regional Police	N (7.3)	Y (38)	N (2)	N (3)	N (119)	1
Greater Sudbury Police Service	N (6.2)	N (41)	N (3)	N (3)	N (124)	0
Royal Canadian Mounted Police	N (7.5)	N (43)	N (2)	N (2)	N (92)	0
Ottawa Police Service	N (6.1)	N (45)	N (3)	N (3)	N (122)	0
The Blood Tribe Police Service	N (7.5)	N (46)	N (2)	N (1)	N (122)	0

Thunder Bay Police Service/Niagara	N (6.1)	N (46)	N (3)	N (3)	N (123)	0
Regional Police Service/ Orangeville						
Police Service						
Edmonton Police Service/Lethbridge	N (7.7)	N (47)	N (2)	N (2)	N (124)	0
Regional Police Service/Medicine						
Hat Police Service						
Halton Regional Police	N (7.0)	N (48)	N (3)	N (3)	N (116)	0
Calgary Police Service	N (8.5)	N (52)	N (2)	N (2)	N (124)	0

Note. a = all cautions collected from British Columbia as they were identical (Combined Organizations, Delta, Nelson, Saanich, Victoria, West Vancouver). The value contained inside each bracket represents the raw score for that measure of reading complexity.

sentence complexity ( $\leq 40$ ). The average Grammatik score was 38.76 ( $SD = 8.51$ ), with scores ranging from 25 for the Brockville Police Service/North Bay Police Service to 59 for the Gatineau Police Service.

All of the cautions contained difficult words ( $\geq 10$ th grade, see footnote 3). The average number of difficult words per caution was 2.68 ( $SD = 0.85$ , Range: 2 - 6). The RNC caution contained the greatest number of difficult words, while 11 cautions tied for the least amount of difficult words. Eighty-four percent of the cautions contained low frequency words ( $< 1$ /million). The average number of low frequency words per caution was 1.04 ( $SD = 0.61$ , Range: 0 - 2). Five cautions tied for the greatest number of low frequency words, and 4 cautions tied for the least number of low frequency words. Twenty percent ( $n = 5$ ) of the cautions contained less than 75 words. The average word length of the right-to-legal counsel cautions was 100.52 ( $SD = 27.18$ ), and ranged from 28 words for the Hamilton Police Service to 133 words for the Saint John Police Force.

Approximately 32% ( $n = 8$ ) of the 25 cautions did not meet any of the criteria recommended by Rogers, Harrison, Shuman, et al. (2007) and Rogers et al. (2008). Only 3 (12%) cautions met 3 of the 5 criteria, 10 (40%) met 2, and 4 (16%) met 1 of the criteria.

#### **2.4 Discussion**

The purpose of this study was to measure the reading complexity of Canadian police cautions. In line with Rogers, Harrison, Shuman, et al.'s (2007) and Rogers et al.'s (2008) findings with *Miranda* warnings, substantial variation in the measures of reading

complexity was found. Using the cut-off criteria advocated by Rogers and his colleagues for each of the five readability measures, the majority of silence cautions were not found to be overly complex, but most of the legal counsel cautions were overly complex. These findings suggest that Canadian offenders may struggle to understand their right-to-legal counsel.

The large differences in reading complexity of both types of cautions across police organizations are not overly surprising because policing in Canada is primarily a provincial responsibility. That is, many organizations would have developed their cautions independently of other organizations. Furthermore, the task of developing the police cautions is typically the responsibility of each organization's legal department, where a lawyer would interpret *The Charter* and relevant case law to decide on the wording of the cautions. Such a practice raises questions about procedural fairness regarding the administration of rights in the Canadian justice system because suspects in some regions of the country may be afforded better protection of their rights than suspects in other regions. Although it is recognized that the adoption of national standards is not a straightforward process, the development of a standardized police caution would appear to be a positive step forward.

The reading complexity analysis suggests that Canadian police organizations ought to revise their legal counsel cautions significantly and, to a lesser extent, their silence cautions. Every attempt should be made to reduce words that are difficult to understand (e.g., retain) and are not used often in everyday communications (e.g.,

detained). The majority of cautions should be shortened to match what we know about the capacity of working memory (Baddeley & Hitch, 1994). It is also recommended that the sentences in the cautions be shortened and multiple-syllable words be avoided. It is expected that such revisions would allow Canadian offenders, who typically have low literacy level and high frequency of learning disabilities (Bell, Conrad, & Suppa, 1984; Muirhead & Rhodes, 1998), to better understand the rights contained in these cautions. These revisions would also likely help implement the recommendation made in *R. v. Bartle* (1994) that police cautions be as clear as possible. Overall, the current study supports Rogers et al.'s (2008) conclusions that more emphasis needs to be placed on designing cautions that use simple declarative statements and avoid legalistic phrases.

Indications from the reading complexity analysis about whether or not people should be expected to be able to understand their rights are mixed. On the one hand, the low level of reading complexity for the right-to-silence caution does not correspond to research showing that people do not understand that caution fully (Eastwood & Snook, 2009; Moore & Gagnier, 2008). On the other hand, the fact that none of the right-to-legal counsel cautions met all 5 readability criteria corresponds to Eastwood's and Snook's (2009) findings that it is rare for people to understand the rights contained in a right-to-legal counsel caution. These mixed findings raise the question of whether or not reading complexity is a valid predictor of listening comprehension. The purpose of Study 2 was to test the validity of the criteria used for measuring complexity in Study 1 as predictors of listening comprehension.

### Chapter 3: Study 2

In Study 1, five readability measures were used to assess the complexity of Canadian police cautions. It was assumed that as the reading complexity of a caution increased, comprehensibility would decrease. Despite the widespread usage of readability measures, however, studies assessing their ability to predict comprehension of material have produced mixed results (see Duffy, 1985). For example, Rogers, Harrison, Hazelwood et al. (2007) demonstrated that Flesch-Kincaid (FK) scores can help predict accurately the needed reading comprehension level of *Miranda* warnings. However, Davis, Holcombe, Berkel, Pramanik, and Divers (1998) found that consent forms written at either a 16<sup>th</sup> or 7<sup>th</sup> grade reading level produced similar levels of comprehension. Similar concerns regarding the other readability measures used in Study 1 have been raised as well. For example, simply replacing difficult words with simpler synonyms and shortening sentences to reduce their complexity also does not appear to greatly increase comprehension (Duffy & Kabance, 1982). Thus, although the measures recommended by Rogers and his colleagues are widely used and would intuitively appear to increase comprehension, empirical research suggests that their actual impact on comprehension may be minimal.

A second, and often overlooked concern when examining caution comprehension, is that people facing an interrogation are typically required to comprehend police cautions that are delivered to them orally (Snook et al., 2010). The measures used in Study 1, however, pertain primarily to reading complexity. Although listening and reading

comprehension have traditionally been seen as identical processes (Horowitz & Samuels, 1985), and reading comprehension does appear to be moderately related to listening comprehension (Savage, 2001), other researchers have argued that they should be seen as distinct modalities with differing functional and structural properties (Rubin, 1987; Rubin & Rafoth, 1986). Thus, readability measures may not be useful when considering the comprehensibility of orally-delivered passages of text.

These mixed conclusions raise the question of whether or not an orally-delivered caution that meets the above five complexity criteria would be better understood than one that does not meet those criteria. In Study 2, the validity of reading complexity measures in predicting listening comprehension was tested.

### 3.1 Method

**3.1.1 Sample.** Participants ( $N = 121$ ) were undergraduate psychology students from Memorial University. The sample consisted of 42 men ( $M_{age} = 20.50$ ,  $SD = 3.08$ ) and 79 women ( $M_{age} = 20.35$ ,  $SD = 2.71$ ). The average year of study for participants was 2.16 ( $SD = 1.37$ ).

**3.1.2 Materials.** The right-to-silence was derived from Section 7 of *The Charter*, which states: "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". In Canadian case law, the right-to-silence means that suspects and accused persons must be given a free choice about whether or not to speak to the police (see *R. v. Hebert*, 1990). Although Canadian court rulings indicate that the police cannot interfere

with this right (e.g., offer promises or threats), they are not obligated to inform detainees of their right-to-silence prior to questioning (see *R. v. Papadopoulos*, 2006; *R. v. Smith*, 1996).

The right-to-legal counsel is contained in Section 10 (b) of The Charter and states: "Everyone has the right on arrest or detention to retain and instruct counsel without delay and to be informed of that right". As clarified in subsequent cases *R. v. Bartle* (1994) and *R. v. Brydges* (1990), a legal counsel caution must include the following four requirements: (a) notify detainees of their right to retain and instruct counsel without delay, (b) information about access to counsel free of charge where an accused meets prescribed financial criteria set up by provincial Legal Aid ("Legal Aid") plans, (c) information about access to immediate, although temporary legal advice irrespective of financial status ("duty counsel"), and (d) basic information about how to access available services that provide free, preliminary legal advice.

Although police organizations tend to deliver both cautions to detainees (e.g., Snook et al., 2009), case law states that they are obligated to inform detainees only of their Section 10 (b) rights (see *R. v. Papadopoulos*, 2006). As discussed in *R. v. Hebert* (1990), one of the primary purposes of informing individuals of their right-to-legal counsel is to provide them with the ability to get legal advice regarding their rights, with the most important of these rights being the right-to-silence. Given that police are not obligated to deliver right-to-silence cautions to detainees, and the lack of guidance

regarding the content of these cautions, tests of listening comprehension in the current study focused on right-to-legal counsel cautions.

Each of the 25 unique legal counsel cautions from Study 1 was assessed to determine if they contained the four legal requirements outlined above; 17 met all of the requirements (see Table 3.1). In order to test the validity of Rogers and colleagues' cut-off criteria in predicting listening comprehension, the 17 cautions were first organized according to how many of the five criteria were met. The cautions meeting the most and fewest criteria were then selected (as mentioned in Study 1, none of the cautions met all of the criteria). As there was a six-way tie in cautions meeting the most criteria (i.e., 2) and a seven-way tie in cautions that met the fewest criteria (i.e., 0), the cautions that tied were ranked-ordered using their raw scores on the readability measures (see Table 2.2). The two cautions that ranked, on average, as highest and lowest were from the Brockville Police Service/North Bay Police Service (highest score, or simplest caution) and the Calgary Police Service (lowest score, or most complex caution).

Although the Brockville Police Service/North Bay Police Service caution was the simplest of the cautions, it still met only 2 of the criteria. To perform a more thorough test of the criteria, a third caution that met all four legal requirements and all 5 of the criteria was created. The created caution (Created) had a FK score of 4.0, had a Grammatik score of 25, had no low frequency words, had no difficult words, and contained 57 words.

Table 3.1

*Frequency of Legal Requirements Met for each Right-to-Legal Counsel Caution*

Police Organization	Legal Requirement				Total Number of Requirements Met
	Instruct Counsel Without Delay	Legal Aid	Duty Counsel	Accessing Free Legal Advice	
Amherst Police Department	Y	Y	Y	Y	4
The Blood Tribe Police Service	Y	Y	Y	Y	4

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Brockville Police Service/North Bay Police Service	Y	Y	Y	Y	4
Calgary Police Service	Y	Y	Y	Y	4
Cornwall Community Police Service	Y	Y	Y	Y	4
British Columbia	Y	Y	Y	Y	4
Edmonton Police Service/Lethbridge	Y	Y	Y	Y	4
Regional Police Service/Medicine Hat Police Service					
Greater Sudbury Police Service	Y	Y	Y	Y	4
Halifax Regional Police	Y	Y	Y	Y	4
Halton Regional Police	Y	Y	Y	Y	4
London Police Service/Ontario	Y	Y	Y	Y	4

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Provincial Police					
Ottawa Police Service	Y	Y	Y	Y	4
Peel Regional Police	Y	Y	Y	Y	4
Royal Newfoundland Constabulary	Y	Y	Y	Y	4
Thunder Bay Police Service/Niagara	Y	Y	Y	Y	4
Regional Police Service/ Orangeville Police Service					
Winkler Police Service	Y	Y	Y	Y	4
Winnipeg Police Service	Y	Y	Y	Y	4
Bridgewater Police Service/York	Y	Y	Y	N	3
Regional Police					
Gatineau Police Service	Y	N	Y	Y	3
Montreal Police Service	Y	Y	Y	N <sup>b</sup>	3

Prince Albert Police	Y	N <sup>c</sup>	Y	Y	3
Service/Saskatoon Police Service					
Royal Canadian Mounted Police	Y	N	Y	Y	3
Saint John Police Force	Y	Y	Y	N <sup>b</sup>	3
Charlottetown Police Department	Y	Y	N <sup>d</sup>	N	2
Hamilton Police Service	Y	N	N	N	1

*Note.* a = all cautions collected from British Columbia were identical (Combined Organizations, Delta, Nelson, Saanich, Victoria, West Vancouver); b = Although the caution mentions that free legal advice is available, it does not explicitly mention that there is a phone number that can be used to contact this free lawyer; c = Although this caution mentions the legal aid plan, it does not state that this option is available upon being charged with an offence; d = Prince Edward Island does not currently have a fully functioning duty counsel service, therefore the caution does not include this requirement.

By including a third caution, the stimuli consisted of a caution that met none of the criteria (Calgary), a caution that met approximately half of the criteria (Brockville/North Bay), and a caution that met all of the criteria (Created). The three cautions are listed below in order of complexity. The first sentence in the first two cautions below is incomplete because it may have increased the complexity of the cautions by inserting the name of an arbitrary criminal charge.

#### Most Complex (Calgary)

*I am arresting you. You have the right to retain and instruct a lawyer without delay. This means that before we proceed with our investigation you may call any lawyer you wish or a lawyer from a free legal advice service immediately. If you want to call a lawyer from a free legal advice service, we will provide you with a telephone and you can call a toll-free number for immediate legal advice. If you wish to contact any other lawyer, a telephone and telephone books will be provided to you. If you are charged with an offence, you may apply to Legal Aid for assistance. Do you understand: Do you want to call a free lawyer or any other lawyer?*

#### Least Complex (Brockville/North Bay)

*I am arresting you. It is my duty to inform you that you have the right to retain and instruct counsel without delay. You have the right to telephone any lawyer you wish. You also have the right to free advice from*

*a legal aid lawyer. If you are charged with an offence, you may apply to the Legal Aid Plan for assistance. Telephone number 1-800-265-0451 will put you in contact with a Legal Aid Duty Counsel Lawyer for free legal advice right now. Do you understand? Do you wish to call a lawyer now?*

#### Created

*You can hire and talk to your own lawyer right now. You can also get free legal advice from a government lawyer right now. If you want this free advice I will give you the number to call. If you are charged with a crime you can apply for a free lawyer to help with your case.*

A Visual Basic program was designed using Visual Basic 5 software. This program consisted of 3 different forms, each of which was displayed on a computer monitor in sequence. The first form consisted of instructions regarding how to complete the experiment. The second form consisted of a video of an individual reading one of the three legal counsel cautions (i.e., Calgary, Brockville/North Bay, or Created) in its entirety. The speed of delivery for the three cautions was 162 words/minute for Calgary, 180 words/minute for Brockville/North Bay, and 204 words/minute for Created; which should be conducive to oral comprehension (see Carver 1982; Jester & Travers 1966). The third form instructed participants to describe, in as much detail as possible, their understanding of the caution they heard. Located below the instructions was a text box for participants to type their answers. All answers that were typed into the text boxes were saved automatically in a Microsoft Word document.

**3.1.3 Procedure.** The study was conducted in the Bounded Rationality and Law Lab at Memorial University. Each participant was greeted at the entrance to the lab and directed to one of four computer testing stations. Participants were then asked to read and sign an informed consent form as well as complete a short demographic questionnaire (i.e., age, gender, year of study). Next, the experimental instructions were outlined, and it was verified that the participant understood how to complete the study. Participants were then provided with a pair of headphones to listen to the videos, assigned randomly to one of the three caution conditions, and instructed to begin the experiment. There were no significant differences in participants' age, gender, or year of study across the Calgary ( $n = 38$ ), Brockville/North Bay ( $n = 44$ ), and Created ( $n = 39$ ) conditions. Upon completion of the experiment, each participant received a debriefing form that outlined the purpose of the study. The study took approximately 5 minutes to complete, and participants' names were entered into a drawing for a \$100 prize.

**3.1.4 Coding participant answers.** Participants' answers were coded by the author using a coding guide constructed to measure participants' comprehension of the four legal requirements (see Appendix A for copy of coding dictionary). For the first requirement, participants received one point if they stated they could *retain/hire a lawyer/counsel* (1a), one point if they stated they could *talk to/instruct a lawyer/counsel* (1b), and one point if they stated this (i.e., 1a and 1b) could be done *without delay/immediately* (1c). For the second requirement, one point was given if participants stated they could *talk to a lawyer/get legal advice* (2a), one point if they mentioned that

this legal service was *free* (2b), and one point if they mentioned they could obtain this free legal service *without delay/immediately* (2c). For the third requirement, one point was given if participants stated there was *a number they could call to talk to this free lawyer/get legal advice* (3). For the fourth requirement, one point was given if participants mentioned they could *apply for legal aid* (4a), and one point was given if they mentioned that the application to legal aid was *dependent on them being charged with a crime* (4b). Scores for comprehension of the cautions could range from zero to nine, reflecting each of the nine components which underlie the four requirements. Any extra information contained in the cautions (e.g., a telephone book would be provided) was not coded.

**3.1.5 Inter-rater reliability.** Reliability of the coding was assessed by having another researcher code all of the answers independently. The researcher was provided with a one-hour training session that covered the practical aspects of coding the answers and the content of the nine-point coding guide. In addition, practice was gained by coding 5 booklets from an earlier study of caution comprehension before the actual coding was conducted. Any confusions pertaining to the task were resolved before the inter-rater reliability commenced. The reliability of coding was measured using Cohen's Kappa (Cohen, 1960) and percentage agreement. The Kappa and percentage agreement (in brackets) for component 1a was .85 (93%), for component 1b was .81 (91%), for component 1c was .88 (95%), for component 2a was .54 (77%), for component 2b was .71 (86%), for component 2c was .71 (93%), for component 3 was .93 (97%), for

component 4a was .67 (90%), and for component 4b was .68 (91%). The average Kappa across all answers was .79 (90%), thus suggesting excellent agreement between the coders (Fleiss, 1981; Landis & Koch, 1977).

### 3.2 Results

The mean comprehension level, out of a maximum of nine points, for the Calgary caution was 3.53 ( $SD = 1.81$ , 95% Confidence Intervals ( $CI$ ) = 2.93 to 4.12), while the mean comprehension for the Brockville/North Bay and Created cautions was 3.11 ( $SD = 1.45$ , 95%  $CI = 2.67$  to 3.55) and 3.36 ( $SD = 1.87$ , 95%  $CI = 2.75$  to 3.97), respectively. The results of a one-way ANOVA did not reveal any difference between conditions  $F(2, 118) = .61, p = .55$ , and there was substantial overlap between the  $CI$ s across the three conditions. The largest difference in level of comprehension was between the Calgary and Brockville/North Bay cautions, although the effect size was small,  $d = 0.26$ . The effect size for the difference in comprehension level between Calgary and Created was  $d = 0.09$ , and the effect size for the difference in comprehension level between Created and Brockville/North Bay was  $d = 0.15$ . Figure 3.1 displays the percentage of participants, and the associated 95%  $CI$ s, who comprehended each of the nine components as a function of caution heard. An examination of each component showed that the percentage of participants who indicated correctly that they could hire/retain a lawyer ranged from 43% for the Brockville/North Bay caution to 74% for the Created caution. The percentage

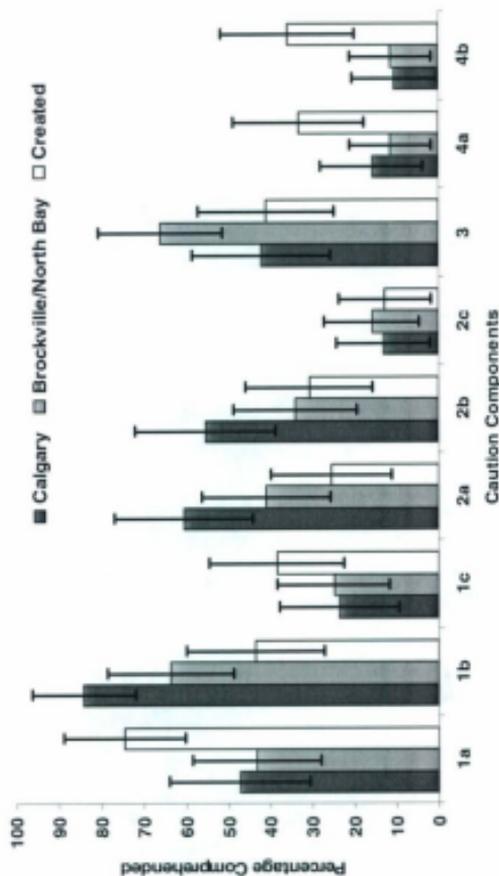


Figure 3.1. The percentage of participants, and associated 95% confidence intervals, who understood each of the nine components of the right-to-legal counsel cautions. *Note.* Component 1a refers to the right to hire a lawyer; 1b refers to the right to speak to a lawyer; 1c refers to the right to have these rights without delay; 2a refers to the right to legal advice/call a lawyer; 2b refers to the fact that this service (i.e., legal advice/call a lawyer) is free; 2c refers to the fact that access to this service (i.e., legal advice/call a lawyer) can be obtained immediately; 3 refers to the provision of a toll-free number to access free legal advice; 4a refers to the right to apply to legal aid for legal help; 4b refers to the fact that the right to apply to legal aid for help is contingent upon the individual being charged with a crime.

of participants indicating they could instruct/talk to a lawyer varied greatly as well, ranging from 44% for the Created caution to 84% for the Calgary caution. Relatively few participants indicated that they could exercise these rights right away (< 39% for all cautions).

The percentage of participants who indicated correctly that they could get legal advice/call a lawyer ranged from 26% for the Created caution to 61% for the Calgary caution. Fifty-five percent of participants who viewed the Calgary caution indicated that this legal service was free, compared to 34% for the Brockville/North Bay caution and 31% for the Created caution. Relatively few participants indicated that this legal service could be accessed immediately (< 16% for all cautions). Approximately 40% of participants indicated correctly that there was a toll-free number that could be used to access legal advice/a lawyer for both the Calgary and Created cautions. However, the fact that a toll-free number was available was reported by 66% of the participants in the Brockville/North Bay group. The two components dealing with legal aid (i.e., can apply to legal aid/lawyer; application dependent on being charged with a crime) were comprehended most frequently by participants in the Created group (33% and 36%, respectively). However, fewer than 16% of the participants in the Calgary and Brockville/North Bay caution conditions comprehended the legal aid components.

### **3.3 Discussion**

The purpose of this study was to test the validity of the criteria used for measuring the complexity of police cautions, as outlined in Rogers, Harrison, Shuman, et al. (2007)

and Rogers et al. (2008), for predicting listening comprehension. The results showed that the level of listening comprehension was similar for three cautions that varied greatly in reading complexity. Irrespective of the caution heard, participants demonstrated knowledge of only one-third of the information contained in the caution presented orally to them. Although only a single study, these findings suggest that the reading complexity measures examined in Study 1 may not be useful predictors of listening comprehension of police cautions and that people are not fully aware of the information needed to deal with the intricacies of a police interrogation. Variation was also found in levels of comprehension across cautions with regards to specific rights contained in the cautions. These findings have implications for the protection of legal rights and statement admissibility.

One would expect that passages of text that are relatively short, require low levels of reading ability, have simplistic sentences, and do not contain difficult words or infrequently used words would be easier to comprehend orally than those that do not meet those criteria. The fact that this is not the case for legal counsel cautions highlights the need to consider whether or not the acts of reading and listening are synonymous processes (see Rubin, 1987). Some have argued that these are two distinct modalities, and the way to improve listening comprehension is to alter a passage of text so that it better matches the way people perceive auditory information (Rubin, 1993; Rubin & Rafoth, 1986). For example, researchers have argued that providing listening instructions prior to delivering the information (Vandergrift, 1999), adding redundancies to the message

(Meyer & McConkie, 1973), and organizing the information in a logical fashion (Shohamy & Inbar, 1991) can help improve listening comprehension.

The finding that university-level individuals understood only one third of the information contained in a police caution suggests that suspects and accused persons would also struggle to comprehend fully the information contained in police cautions. It is acknowledged that this study lacks a certain level of ecological validity because caution comprehension was tested under unrealistic and optimal conditions (e.g., high-functioning students, low-stress laboratory setting, and acceptable speed of delivery). These results, however, provide a relatively accurate estimate of the maximum level of comprehension possible. It is predicted that tests of comprehension under more realistic conditions (e.g., low functioning individual, high-stress situation, quick delivery of caution) would result in a decrease in performance. It appears unlikely that suspects facing an actual police interrogation would be able to understand even one third of the information contained in these cautions.

An examination of the nine components that are contained in each of the three cautions reveals variations in comprehension. The within-component analysis revealed that confidence intervals between the three cautions overlapped (see Cumming & Finch, 2005). That is, after using a Bonferroni correction for 9 comparisons, no single caution was better understood than the other two cautions on any single component. One may still be tempted to simply take the component that scored the highest from each caution and then combine them to construct a highly comprehensible caution. It must be pointed out

that this is not easily accomplished because multiple components are imbedded in a single sentence, and, for the most part, are not discrete statements. Future research should separate the nine components into discrete sentences and test whether certain component(s) are more difficult to comprehend than others.

The between-component analysis showed that the majority of participants (regardless of the caution heard) appeared to understand that they could either retain or talk to a lawyer (their own lawyer or duty counsel), and nearly half mentioned there was a phone number available that would put them in touch with free legal advice. By contrast, most participants did not seem to understand that they could access legal help immediately (their own lawyer or duty counsel) and did not appear to understand that their rights concerning legal aid were contingent upon them being charged with a crime. Although an improvement in the comprehension of all components is needed, particular attention should be paid to ensuring that people know they can access legal help immediately and the options available to them if they are charged with a crime (i.e., legal aid).

One methodological issue that deserves specific mention is the use of a free recall procedure to measure comprehension. The fact that participants did not report certain aspects of the caution does not guarantee that they did not comprehend them. For example, participants may have known that they could contact a lawyer "right away," but believed that this right was implied in their statement that they had "a right to get a lawyer." Potentially more effective measures of comprehension include the use of role-

playing exercises (e.g., getting participants to take the role of lawyer providing legal advice to client), action-based scenarios (e.g., participants are asked whether certain courses of action by a suspect are legally possible), and multiple choice tests (e.g., participants are asked to choose legally acceptable course of action from a list of options). Although free recall is used commonly to measure comprehension in a range of domains such as law and medicine (e.g., Charrow & Charrow, 1979; Crane, 1996; Gudjonsson & Clare, 1994), the development and testing of additional ways of assessing comprehension that can supplement this procedure is needed (see Chapter 5 for a study which addresses this issue).

### **3.4 Concluding Thoughts**

The primary goal of the current research was to test whether or not caution complexity, as assessed by various readability measures, might be able to explain the existing low levels of caution comprehension. Despite the somewhat intuitive notion that cautions with relatively high levels of reading complexity should be more difficult to comprehend when presented orally than those with lower levels of reading complexity, modifying cautions so that they met acceptable readability levels did not improve listening comprehension. In fact, university-level students under ideal conditions understood only one third of the information contained in a very simple caution. Given the dual importance of protecting people's rights and ensuring that inculpatory evidence is admitted in court, it is hoped that the pursuit of alternative ways of increasing comprehension (e.g., improving listenability) will help resolve this important issue.

### Chapter 4: Study 3

One potential explanation why reducing reading complexity did not increase comprehension relates to the fact that the cautions were delivered orally – mirroring how cautions are typically delivered in real-world interviews (Snook, et al., 2010). That is, individuals are not given a written copy of the caution to read, but instead, must listen while the interviewer delivers the caution. According to Rubin (1987), listening and reading should be seen as qualitatively different modalities due to the constraints and conditions under which speech is produced and taken-up (e.g., fast-fading medium, interference from outside noise). Passages of text that are oral-based (e.g., contain redundancies, first-person references) and considerate (e.g., predictable flow of information, elaboration of information) help the listener deal with the constraints inherent in listening situations; that is, they make the text more *listenable*<sup>4</sup> (Rubin, Hafer, & Arata, 2000). Altering cautions to make them more listenable may increase comprehension beyond what can be accomplished using readability measures.

Although readers can typically process a passage of text at their own pace and review the information numerous times, listeners often hear the text only a single time, and must retain the information in their working memory while simultaneously attempting to interpret the meaning of the information (Shohamy & Inbar, 1991). Given

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<sup>4</sup> The term “listenable” or “listenability” can have several meanings apart from the one that is adopted in the current paper (e.g., pleasant to listen to). To clarify, the current research uses the term as understood and defined by researchers such as Donald Rubin and his colleagues. That is, messages are listenable based on the degree to which they contain features of prototypical “oral-based” and “considerate” text (see Rubin, 1993).

these constraints, prototypical spoken communication is repetitive, contains verb clusters instead of noun phrases (e.g., I analyzed the results vs. the results were analyzed), and uses sentences with simple main clauses (e.g., I analyzed the results. Then I wrote the results section; Rubin et al., 2000). These are characteristics which listeners can exploit to aid in comprehension (Rubin, 1987). Discourse that matches closely the way people typically deliver and receive auditory information can be considered oral-based. By contrast, prototypical written communication is characterized by a high number of subordinate clauses (e.g., you should analyze the results *after* completing the experiment but *before* you write the results section *unless* you prefer using a different approach), use of nominalizations (i.e., verb phrases converted to noun phrases), and a relatively complex grammatical structure (Rubin, 1987). This type of discourse, which is generally designed to communicate a specific body of information to an anonymous audience, can be considered literate-based (Olson & Torrance, 1981). As pointed out by Rubin and Rafoth, (1986), however, written text may be designed to be presented orally (e.g., speeches, movie scripts) while orally-delivered discourse may more closely resemble prototypical written text (e.g., judge's instructions to juries); thus whether or not a passage of text is considered more oral-based or literate-based is independent of its mode of delivery (i.e., written versus oral).

As mentioned, oral-based discourse is characteristic of prototypical verbal communication and can help mitigate the constraints present in listening situations. There is no exhaustive list of the features of oral-based discourse or set guidelines regarding

what makes a passage of text fully oral-based (Rubin & Rafoth, 1986; Rubin, 1987). However, some common features of oral-based text include: (a) assumption of face-to-face interaction or shared knowledge, (b) relatively simple sentences that avoid nominalizations, (c) high level of redundancy, (d) first-person reference, and (e) few subordinate or embedded clauses (see Rubin, 1987). Although oral-based discourse is well adapted for the majority of listening situations, it is also often highly fragmented and disjointed in its presentation, and is ill-suited for situations where there are low levels of shared knowledge between sender and receiver (Rubin, 1993). In order to further increase the comprehensibility of passages of text, researchers have introduced the concept of "friendly" or "considerate" text (Armbruster, 1984). Considerate text helps ease the information processing load on those perceiving the text by including the following features: (a) text organization (e.g., appropriate introductory material, internal summaries), (b) cohesiveness, (c) discourse consistency (e.g., consistent style throughout the text), (d) flow of information (e.g., logical introduction of new information), (e) elaboration of information (e.g., explanations), and (f) metadiscourse (e.g., cues regarding purpose of text; Rubin, 1993). A passage of text that is both oral-based and considerate can be considered highly listenable; that is, it is particularly suited to the information processing involved in listening.

An underlying assumption of the theory of listenability is that oral-based or listenable discourse will be better understood than literate-based discourse when delivered orally (Shohamy & Inbar, 1991). In order to test this assumption, Shohamy and Inbar

(1991) presented participants with passages of text that were either very literate-based (i.e., news broadcast), very oral-based (i.e., consultative dialogue), or text that fell in between the oral/literate continuum (i.e., lecture). Participants listened to the passages of text twice while being allowed to take notes, and then were asked a series of questions regarding the content of the text. They found that comprehension of the news broadcast was significantly worse than comprehension of the two more oral-based texts (i.e., lecture and consultative dialogue), with comprehension levels being similar for the lecture and consultative dialogue.

A similar study by Rubin et al. (2000) compared the comprehension of a speech (oral-based discourse) and a magazine article (literate-based discourse) when they were presented either orally or in written format. Participants either read or listened to the passage of text, and then comprehension of the text was measured using both a multiple choice test and cloze test (i.e., a print copy of the text with every seventh word deleted; participants attempt to fill in the missing words). Results for both dependent measures (i.e., multiple choice questions and cloze test) showed that oral-based discourse was better understood than literate-based discourse across the two modalities (i.e., written and oral). The findings from these studies open up the possibility of increasing the comprehension of police cautions – which are typically delivered orally – by making them more listenable.

#### 4.1 Study 3

One difficulty faced when modifying the listenability of cautions is that their primary purpose, similar to a judge's instructions to jurors, is to relay very specific legal information – regardless of comprehensibility. Cautions can therefore be considered inherently literate-based passages of text (Rubin, 1993), and any listenability features added to cautions must not interfere with the direct and explicit delivery of the necessary legal information. Furthermore, police interviewers are typically not required to explain an interviewee's legal rights beyond orally delivering a standard caution a single time (e.g., *R v. Bartle*, 1994), and research suggests that interviewers rarely verify understanding (Snook et al., 2010). Given the constraints associated with actual police interviews, designing a listenable caution that is likely to be used in actual police interviews is a unique challenge. Nevertheless, modifying police cautions using several fundamental features of oral-based and considerate discourse should help produce cautions that are both practical and comprehensible.

The overall purpose of the current research is to create comprehensible Canadian police cautions. The Created caution tested in Study 2, which was designed to meet various readability measures, contains some of the characteristics of oral-based text (e.g., second-person references, sentences without multiple embedded clauses, avoids nominalizations). However, it is still missing some fundamental aspects of listenable text, which may explain its low level of comprehension by participants. For example, each piece of information presented in the caution was immediately followed by a new piece of

information, with no pauses or repetitions to allow listeners to review the initial information – a fundamental component of oral-based text. The caution also contained no introductory information regarding the purpose of a police caution or how listeners were to interact with the caution, and contained no explicit transitions or organizational cues to guide listeners regarding the structure and content of the caution, both of which are important features of considerate text.

As mentioned, there is no exhaustive list of listenability features and no concrete guidelines for how to create listenable text. However, in order to deal with basic aspects missing from the caution as outlined above, the caution used in the current study employed the following listenability modifications:

- (a) **Instructions.** Instructions informed participants, before the caution was delivered, of the nature of the upcoming information and what they were expected to do with that information after the caution was delivered (i.e., asked to record their understanding of the information contained in the caution; see Vandergrift, 1999).
- (b) **Listing.** Listing allowed the information contained in the caution to be organized into the four main legal rights. This included explicitly informing participants that they had four legal rights and notifying them before each right was mentioned (see Rubin, 1993).

(c) **Explanations.** Explanations built redundancy into the caution by repeating the content of each sentence, immediately after each sentence was delivered, in a slightly different manner (see Rubin & Rafoth, 1986).

Based on the listenability research reviewed above, it was hypothesized that each of these modifications would increase comprehensibility independently by allowing participants to know what to listen for and better focus their attention while listening (Instructions), logically organizing the information and explicitly separating the four rights for participants (Listing), and ensuring participants did not miss information and providing an explicit rehearsal mechanism (Explanations). Each of these modifications should help relieve the constraints placed on individuals in listening situations in a different fashion (see Bostrom & Waldhart, 1988). It was therefore hypothesized that the addition of each modification would increase comprehension. That is, a caution with one modification would produce higher comprehension scores than a caution with no modifications, a caution with two modifications would produce higher comprehension scores than a caution with one modification, and the caution that contained all three modifications would produce the highest level of comprehension.

#### 4.2 Method

**4.2.1 Sample.** Participants ( $N = 160$ ) were undergraduate psychology students from Memorial University. The sample consisted of 59 men ( $M_{age} = 22.61$ ,  $SD = 5.94$ ) and 101 women ( $M_{age} = 21.31$ ,  $SD = 4.81$ ). The average year of study for participants was 2.72 ( $SD = 1.46$ ).

**4.2.2 Materials and design.** The Created caution from study 2 was used in the current study. This legal-counsel caution was designed to contain all the necessary legal rights while also meeting the 5 reading complexity measures outlined by Rogers et al., (2008) and Rogers, Harrison, Shuman et al., (2007). This caution was used because it produced the same level of comprehension as the cautions currently being used by police organizations, but was more conducive to the modifications. That is, unlike the other cautions, this caution had only one sentence for each of the four legal rights; this allowed each right to be listed easily and an explanation added easily after each sentence. This base right-to-legal counsel caution was modified so that it either did or did not contain each of the modifications (i.e., Instructions, Listing, and Explanations). The Instructions modification was added to the beginning of the caution, and the Listing and Explanation modifications were integrated into the caution. The original Created caution, along with the details of each of the three modifications (in italics), are listed below.

#### Base Legal Counsel Caution

You have the right to hire and talk to your own lawyer right away. You have the right to free legal advice from a government lawyer right away. If you want this free advice I will give you the number to call. If you are charged with a crime you can apply for a free lawyer to help with your case.

### Instructions

*I am going to read you the police caution. The police caution describes the rights that you have when being interviewed by the police. I want you to listen carefully to the caution as I am reading it and think about the information that you hear. This is important, as I will ask you to tell me what the caution means when I finish reading it. I will start reading the caution now.*

### Listing

*You have four rights that you need to know about:*

*First, you have the right to hire and talk to your own lawyer right away.*

*Second, you have the right to free legal advice from a government lawyer right away.*

*Third, if you want this free legal advice, I will give you a telephone number to call.*

*Fourth, if you are charged with a crime, you can apply for a free lawyer to help with your case.*

### Explanations

*You have the right to hire and talk to your own lawyer right away. This means that you can hire and talk to any lawyer you want before I ask you any more questions.*

You have the right to free legal advice from a government lawyer right away. *This means that you can talk to a free lawyer and get free legal advice before I ask you any more questions.*

If you want this free legal advice, I will give you a telephone number to call. *This means that you can get a phone number from me that will let you call for the free legal advice I just mentioned.*

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

A 2 (Instructions vs. no Instructions) x 2 (Listing vs. no Listing) x 2 (Explanation vs. no Explanation) between-subjects design resulted in the creation of the following 8 different conditions: (1) Base Caution (BC), (2) Base Caution + Instructions (BCI), (3) Base Caution + Listing (BCL), (4) Base Caution + Explanations (BCE), (5) Base Caution + Instructions + Listing (BCIL), (6) Base Caution + Instructions + Explanations (BCIE), (7) Base Caution + Listing + Explanations (BCLE), and (8) Base Caution + Instructions + Listing + Explanations (BCLIE).

A Visual Basic program was designed using Visual Basic 5 software. This program consisted of 3 different forms, each of which was displayed on a computer monitor in sequence. The first form consisted of instructions regarding how to complete the experiment. The second form consisted of a video of an individual reading one of the eight legal counsel cautions in its entirety. The speeds of delivery for the eight cautions

were all below 200 wpm, which should be conducive to oral comprehension (see Carver 1982; Jester & Travers 1966). The third form instructed participants to describe, in as much detail as possible, their understanding of the caution they heard. Located below the instructions was a text box for participants to type their answers. All answers that were typed into the text boxes were saved automatically in a Microsoft Word document.

**4.2.3 Procedure.** The study was conducted in the Bounded Rationality and Law Lab at Memorial University. Each participant was greeted at the entrance to the lab and directed to one of four computer testing stations. Participants were then asked to read and sign an informed consent form, as well as complete a short demographic questionnaire (i.e., age, gender, year of study). Next, the experimental instructions were outlined briefly, and it was verified that the participant understood how to complete the study. Participants were then provided with a pair of headphones to listen to the videos, assigned randomly to one of the eight caution conditions, and instructed to begin the experiment. There were no differences in participants' age, gender, or year of study across the eight conditions. Upon completion of the experiment, each participant received a debriefing form that outlined the purpose of the study. The study took approximately 10 minutes to complete, and participants were either entered into a drawing for a \$100 prize or given a percentage point in their psychology course.

**4.2.4 Coding participant answers.** Participants' answers were coded by the author using a coding guide constructed to measure participants' comprehension of the four legal requirements contained in the caution (see Appendix A). For the first

requirement, participants received one point if they stated they could *retain/hire a lawyer/counsel* (1a), one point if they stated they could *talk to/instruct a lawyer/counsel* (1b), and one point if they stated this (i.e., 1a and 1b) could be done *without delay/immediately* (1c). For the second requirement, one point was given if participants stated they could *talk to a lawyer/get legal advice* (2a), one point if they mentioned that this legal service was *free* (2b), and one point if they mentioned they could obtain this free legal service *without delay/immediately* (2c). For the third requirement, one point was given if participants stated there was *a number they could call to talk to this free lawyer/get legal advice* (3). For the fourth requirement, one point was given if participants mentioned they could *apply for legal aid* (4a), and one point was given if they mentioned that the application to legal aid was *dependent on them being charged with a crime* (4b). Scores for comprehension of the cautions could range from zero to nine, reflecting each of the nine components which underlie the four requirements. Any extra information reported by participants was not coded.

**4.2.5 Inter-rater reliability.** Reliability of the coding was assessed by having another researcher code all of the answers independently. The researcher was provided with a one-hour training session that covered the practical aspects of coding the answers and the content of the nine-point coding guide. In addition, practice was gained by coding 5 responses before the actual coding was conducted. Any confusions pertaining to the task were resolved before the inter-rater reliability commenced. The reliability of coding was measured using Cohen's Kappa (Cohen, 1960) and percentage agreement. The

Kappa and percentage agreement (in brackets) for component 1a was .73 (92%), for component 1b was .77 (88%), for component 1c was .75 (88%), for component 2a was .72 (86%), for component 2b was .77 (90%), for component 2c was .84 (93%), for component 3 was .84 (94%), for component 4a was .80 (94%), and for component 4b was .83 (92%). The average Kappa across all answers was .81 (91%), thus suggesting excellent agreement between the coders (Fleiss, 1981; Landis & Koch, 1977).

### 4.3 Results

The average comprehension score (out of 9), and associated 95% confidence intervals (*CI*), for each of the eight cautions is shown in Figure 4.1. As can be seen, the highest level of comprehension was achieved when all three listenability modifications were added to the Base Caution ( $M = 6.60$ ,  $SD = 1.54$ ,  $CI = 5.88$  to  $7.32$ ) and the lowest level of comprehension was achieved for the Base Caution without any modifications ( $M = 3.35$ ,  $SD = 1.73$ ,  $CI = 2.54$  to  $4.16$ ). The results also show that the *CI* for the BCLIE caution overlapped with the *CI* for cautions with the next three highest scores (BCIE, BCLE, BCE) but did not overlap with the *CI* for cautions with the four lowest scores. Inspection of the cautions showed that the addition of the Explanations modification was contained in the cautions with the top four highest scores.

A 2 (Instructions) x 2 (Listing) x 2 (Explanation) analysis of variance was computed on participants' overall comprehension score.

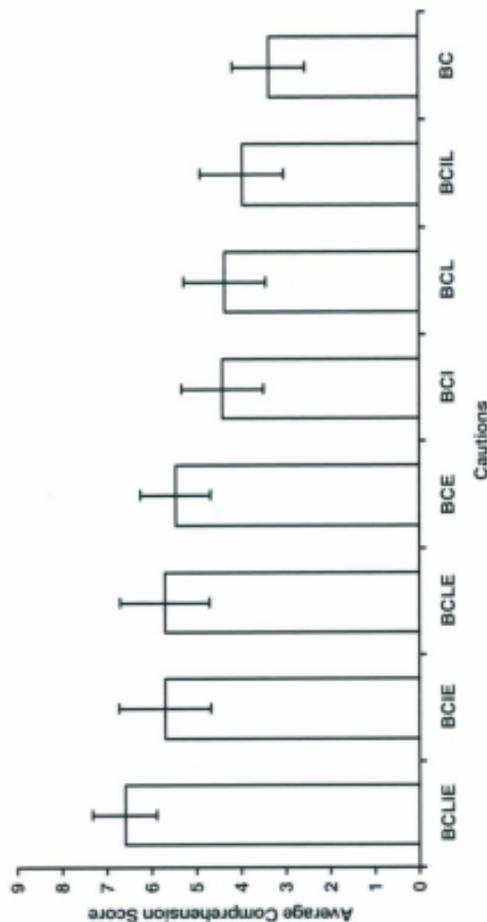


Figure 4.1. The average comprehension score, and associated 95% confidence intervals, for each of the 8 unique cautions. *Note.* The cautions include: (1) Base Caution (BC), (2) Base Caution + Instructions (BCI), (3) Base Caution + Listing (BCL), (4) Base Caution + Explanations (BCE), (5) Base Caution + Instructions + Listing (BCIL), (6) Base Caution + Instructions + Explanations (BCIE), (7) Base Caution + Listing + Explanations (BCLE), and (8) Base Caution + Instructions + Listing + Explanations (BCLIE).

This analysis revealed only a significant main effect of Explanations,  $F(1, 158) = 37.63, p < .001$ , with greater comprehension for cautions that contained Explanations ( $M = 5.86, SD = 1.92, 95\% CI = 5.43$  to  $6.29$ ) than for those that did not ( $M = 4.01, SD = 1.92, 95\% CI = 3.58$  to  $4.44, d = .96$ ). That is, repeating each legal right in different terms greatly increased comprehension of the caution (see Figure 4.2).

There were no main effects of Instructions,  $F(1, 158) = 2.23, p = .14$ , or Listing,  $F(1, 158) = 1.99, p = .16$ . The average comprehension scores of cautions that did and did not contain Instructions was  $5.16 (SD = 2.17, 95\% CI = 4.68$  to  $5.64)$  and  $4.71 (SD = 2.07, 95\% CI = 4.25$  to  $5.17)$ , respectively ( $d = .21$ ). The average comprehension scores of cautions that did and did not contain Listing was  $5.15 (SD = 2.16, 95\% CI = 4.67$  to  $5.63)$  and  $4.73 (SD = 2.09, 95\% CI = 4.26$  to  $5.20)$ , respectively ( $d = .20$ ). These findings suggest that adding instructions to the beginning of the caution and organizing the information in a structured fashion did not significantly facilitate greater comprehension. None of the interactions reached significance, although the three-way interaction approached significance,  $F(1, 152) = 3.03, p = .08$ .

Post-Hoc tests, conducted using a Bonferroni correction, showed that there were no differences in comprehension levels between the BC caution and the BCI ( $d = .57, p = 1.00$ ), BCL ( $d = .54, p = 1.00$ ), and BCIL ( $d = .32, p = 1.00$ ) cautions. However, there were significant improvements in comprehension when comparing the BC caution to the

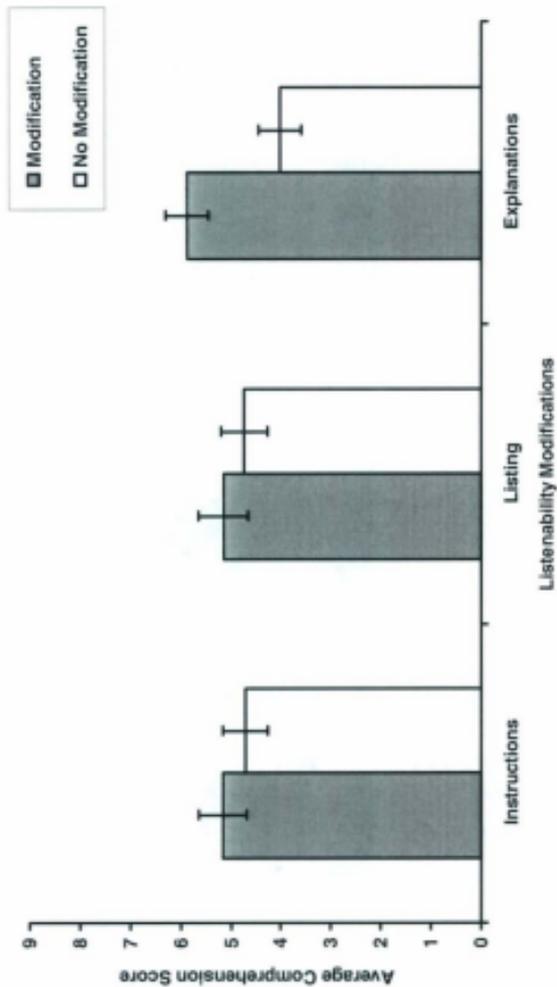


Figure 4.2. The average comprehension score, and associated 95% confidence intervals, for each of the three modifications.

BCE ( $d = 1.24, p = .018$ ), BCLE ( $d = 1.21, p = .004$ ), BCIE ( $d = 1.19, p = .004$ ), and BCLIE ( $d = 1.99, p < .001$ ) cautions. In addition, the caution that contained all three modifications (i.e., BCLIE) produced a significantly higher comprehension score than the BCI ( $d = 1.25, p = .010$ ), BCL ( $d = 1.28, p = .008$ ), and BCIL ( $d = 1.49, p = .001$ ) cautions.

Table 4.1 contains a breakdown of the comprehension of the nine individual caution components for each of the eight conditions. As can be seen, the majority of participants understand they could get a lawyer right away (components 1a & 1c), could get free legal advice (components 2a & 2b), and that a phone number would be provided to allow them to receive the free legal advice (component 3). By contrast, most participants did not appear to realize that the free legal advice could be obtained immediately (component 2c) and that they had the right to apply for legal aid to help with their case (component 4a). Although the relative comprehension levels between components remained similar across all eight conditions, there was a marked increase in comprehension between the BC and BCLIE cautions across the nine components (with the exception of component 1a).

Results showed that 2.5% ( $n = 4$ ) of participants understood all nine components contained in the caution, while 38% ( $n = 60$ ) understood more than half of the caution (i.e., 6 or more components). Of the 4 participants who fully understood the caution, all received cautions that contained the Explanation modification. Of the 60 participants

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Table 4.1

*Percentage of Each of the Nine Caution Components Comprehended Across the Eight Conditions*

Condition	Component								
	1a	1b	1c	2a	2b	2c	3	4a	4b
BC	16 (80%)	4 (20%)	9 (45%)	8 (40%)	11 (55%)	1 (5%)	9 (45%)	2 (10%)	7 (35%)
BC1L	17 (85%)	8 (40%)	8 (40%)	10 (50%)	10 (50%)	2 (10%)	15 (75%)	0 (0%)	9 (45%)
BCL	19 (95%)	10 (50%)	8 (40%)	10 (50%)	13 (65%)	4 (20%)	15 (75%)	3 (15%)	5 (25%)
BC1	20 (100%)	10 (50%)	10 (50%)	11 (55%)	11 (55%)	4 (20%)	12 (60%)	3 (15%)	7 (35%)
BCE	15 (75%)	14 (70%)	15 (75%)	10 (50%)	16 (80%)	9 (45%)	18 (90%)	4 (20%)	8 (40%)
BCLE	16 (80%)	9 (45%)	17 (85%)	15 (75%)	15 (75%)	10 (50%)	13 (65%)	5 (25%)	14 (70%)
BC1E	14 (70%)	11 (55%)	18 (90%)	14 (70%)	16 (80%)	11 (55%)	12 (60%)	6 (30%)	12 (60%)
BCL1E	16 (80%)	12 (60%)	13 (65%)	16 (80%)	19 (95%)	13 (65%)	17 (85%)	9 (45%)	17 (85%)
Overall	133 (83%)	78 (49%)	98 (61%)	94 (59%)	111 (69%)	54 (34%)	111 (69%)	32 (20%)	79 (49%)

Note. Component 1a refers to the right to hire a lawyer; 1b refers to the right to speak to a lawyer; 1c refers to the right to have these rights without delay; 2a refers to the right to legal advice/call a lawyer; 2b refers to the fact that this service (i.e., legal advice/call a lawyer) is free; 2c refers to the fact that access to this service (i.e., legal advice/call a lawyer) can be obtained immediately; 3 refers to the provision of a toll-free number to access free legal advice; 4a refers to the right to apply to legal aid for legal help; 4b refers to the fact that the right to apply to legal aid for help is contingent upon the individual being charged with a crime.

who understood over half of the information contained in the caution, 44 (73%) received a caution that contained the Explanation modification.

#### 4.4 Discussion

The purpose of the current study was to test the extent to which modifying a right-to-legal counsel police caution using three listenability factors (i.e., instructions, listing, explanations) would increase comprehension of the caution. Results showed that the Explanations modification greatly increased comprehension, while the remaining two modifications had a positive, but limited, impact on comprehension. Despite those findings, the caution that contained all three modifications produced the highest comprehension score. These findings have implications for policing, and other consequential domains (e.g., judge's instructions, medical instructions), where information being delivered orally requires high levels of comprehension.

The four cautions that contained the Explanations modification produced the four highest scores, and overall this modification increased comprehension by over 30%. To ensure the locus of the effect rested with the repetitive nature of the Explanation modification, and not with the content of the Explanation sentences, a further 20 participants were presented with just the four Explanation sentences. The average level of comprehension was 3.20 ( $SD = 1.51$ ), which was significantly lower than the participants who received the Explanation modification ( $M = 5.45$ ,  $t_{(38)} = 4.47$ ,  $p < .001$ ) and was not significantly higher than the participants who received the Base caution ( $M = 3.35$ ,  $t_{(38)} =$

.293,  $p = .771$ . These comparisons suggest that the Explanation sentences themselves are not the sole contributor to the observed main effect of the Explanation modification.

There are at least three reasons why repeating each sentence in different words had such a marked impact on comprehension. First, this modification builds redundancies into the caution, which allowed participants to capture any information they may have missed the first time it was mentioned (Rubin, 1987). Second, the redundancies may have helped ease the burden on working memory by acting as a built-in rehearsal mechanism. Third, while the other two modifications helped introduce and organize the information, the Explanations modification was the only one that directly modified the information in the caution to make it more listenable. Regardless of the reason, it appears that simply repeating information a second time can greatly increase comprehension of orally-delivered information.

Contrary to the hypotheses, the Instructions and Listing modifications only produced a small positive effect on comprehension (e.g.,  $d = .21$  &  $d = .20$ , respectively). The limited impact on comprehension for these modifications does not appear to be due to a lack of power, as a post-hoc analysis revealed sufficiently high power to detect a medium effect (i.e., .93). It is suspected that the Instructions did not produce a larger effect because all participants, regardless of which caution they received, were made aware of the general purpose of the study through the informed consent form and the experimenter's basic instructions prior to beginning the study. The fact that all participants had basic knowledge of what the experiment entailed (i.e., listen to a caution

and record what it means) prior to beginning may have pre-empted the effect that providing instructions had on comprehension. For the Listing modification, an examination of participants' responses indicated that exactly half of the participants who received a caution with this modification made explicit reference to the fact that the caution contained four rights and organized their responses accordingly (e.g., "The first right I have is..."). A post-hoc comparison showed that those who presented their responses in list format had higher comprehension scores than those who did not,  $t(78) = 2.12, p = .04, d = 0.47$ . Although there was no main effect of modification, the post-hoc tests suggests that this modification is effective when people use the list format to organize information.

Although the Explanations modification produced the largest impact on comprehension, adding all three modifications to the base caution almost doubled the average comprehension score. Participants understood approximately 35% of the information in the base caution - which replicates the finding from study 2 - and participants understood over 70% of the information in the fully modified caution. Although the fully modified caution did not increase comprehension much more than the other three cautions containing the Explanations modification, practical significance requires the use of a caution that maximizes comprehension. Consequently, it is recommended that police organizations use a caution with all three modifications.

There are at least four issues raised by these findings that need future investigation. First, the current study used a legal-counsel caution that was created

specifically to be simple according to various readability measures. Future research should determine the extent to which these same listenability factors can increase comprehension of the more linguistically complex police cautions currently being used around the world (see Study 2). Second, because the modifications used in the current study represent only some of the factors that can be used to make a passage of text more listenable, future research could attempt to test the extent to which other listenability factors impact comprehension. Third, the replication of this study using a sample of participants who would be likely to encounter police cautions in real-world settings (e.g., offenders) is needed. Lastly, the problem of comprehending potentially complex orally-delivered information exists in other domains, such as judges' legal instructions to jurors, doctors' medical instructions to patients, informed consent forms, etc. The replication of this study in other applied areas is encouraged.

This study represents one of the first successful attempts to increase the comprehension of cautions through modification of their structure (for other attempts, see Moore & Gagnier, 2008; Rock, 2007). Comprehension levels were increased by almost 40% (70% versus 30% found in study 2), which suggests that cautions can be made highly comprehensible by employing listenability modifications. Although more work is need to ensure this increase hold up in real-world settings – and comprehension rates even under ideal conditions remained less than perfect – this study represents a positive step towards ensuring people are able to understand their legal rights

### Chapter 5: Study 4

One methodological issue with the research designs in Study 2 and Study 3 is that all conclusions regarding comprehension have been based exclusively on results from free recall measures. As mentioned, free recall is a procedure used commonly to measure comprehension in domains such as law and medicine (e.g., Crane, 1996; Gudjonsson & Clare, 1994). It is also arguably the purest measure of comprehension, as it does not re-introduce information as part of the questioning process, as would be the case with a measure such as multiple-choice questions. Free recall also reduces the inflation of scores through guessing (Lieberman & Sales, 1997). Having said this, free recall measures have been criticized for focusing solely on the ability to remember, and not actually comprehend and accurately act upon the delivered information (Severance & Loftus, 1982). For example, participants may simply be parroting back the information contained within the caution without truly comprehending the meaning of the information – thus overestimating the true level of comprehension. Alternatively, participants faced with an actual police interview situation may be able to accurately act upon information that they are unable to remember during the free recall session – thus underestimating the true level of comprehension. In addition to memory issues, true comprehension scores may also be underestimated because participants have more knowledge than they are able to accurately express through a free recall procedure. For example, participants may understand that they can talk to their lawyer at any point during an interview, and (incorrectly) believe that the answer “I can get a lawyer” conveys all this information.

Given these potential concerns regarding free recall measures, Study 4 tested several alternative measures of comprehension to help assess the validity of free recall measures, and to further test the comprehensibility of Canadian police cautions.

As outlined in the introduction, Grisso (1981; 1998) designed measures for assessing comprehension of *Miranda* warnings that go beyond pure free recall of an orally-delivered caution. These included getting participants to (a) explain the meaning of each sentence in the warning in their own words (Comprehension of *Miranda* Rights; CMR), (b) decide whether or not two statements had similar meanings (Comprehension of *Miranda* Rights, True or False; CMR-TF), (c) define words taken from the warning (Comprehension of *Miranda* Vocabulary; CMV), and (d) answer questions about vignettes portraying legal scenarios (Function of Rights in Interrogation; FRI). In addition, researchers in Canada adapted Grisso's (1981) CMR, CMR-TF, and CMV measures to a Canadian context to create the Test of Charter Comprehension (TOCC; Ogloff & Olley, 1992).

Although Grisso's (1981; 1998) and Ogloff and Olley's (1992) measures appear to be effective in providing an estimate of caution comprehension, they have several characteristics that make them unsuitable for the current study. First, in addition to oral delivery, the CMR measure presents the caution/warning in a sentence-by-sentence written format. The purpose of the current study, however, was to discover the true comprehension level of a complete, orally-delivered, caution – as it is delivered in actual police interviews. The statement comparison task (e.g., CMR-TF) presents the same

problem, as it delivers each statement in sentence-by-sentence written format. Second, with the exception of the FRI, Grisso's measures do not allow participants to demonstrate comprehension by applying information to a realistic interview situation. Finally, one of the cautions used in the current study (i.e., Created/Fully Modified) had all the difficult/infrequent words removed as part of its construction procedure (see Chapter 3), making the definition task (e.g., CMV) unviable. Given the issues present in previous comprehension measures, the current study designed three measures to test both the retention and application of information contained in orally-delivered police cautions.

The first measure consisted of a modified free recall question: Instead of simply asking participants to record their understanding of the caution that they just heard, they were presented with a scenario where they were asked to imagine that they were either a defence lawyer or a police interviewer. The scenario stressed the importance for their client/interviewee to fully understand their legal rights, and participants were asked – based on the caution that they had heard – to record everything that they would tell their client/interviewee regarding their legal rights. It was hypothesized that the use of these scenarios would facilitate more detailed free recall responses and therefore provide a more accurate measure of comprehension by (a) increasing participant engagement with the task and (b) stressing the importance of the client/interviewee being informed of *all* their rights.

The second measure, similar to Grisso's (1998) FRI, consisted of nine vignettes in which an interviewee makes a request and a police interviewer provides a response to the

request. Participants were presented with the vignettes and were asked to decide, based on the information in the police caution, whether or not each of the interviewer's responses was appropriate. The purpose of this measure was to assess participants' ability to apply the knowledge in the cautions in a theoretical interview situation (see Severance & Loftus, 1982).

The third measure consisted of seven multiple-choice questions that tested participants' knowledge of the content in the caution that they had heard. These measures were created to provide a clearer picture of true comprehension levels by capturing knowledge that participants may not produce in free recall measures (e.g., explicitly saying that all rights can be exercised immediately) and removing the opportunity to simply repeat back the received information. Given that these two measures re-introduce information and provide a greater opportunity to inflate scores through guessing, it was hypothesized that scores would be higher than the scores on the free recall measure while still correlating with the free recall measure.

To obtain a baseline level of performance for the measures used in this and previous studies, the current study also included a second group of participants who were tested without being presented with a caution. Instead, participants in this condition were asked to base their answers on their prior knowledge of legal rights. These participants completed the three comprehension measures outlined above, with the exception that the free recall measure simply asked participants to imagine that they were a suspect facing a police interview and to record all the legal rights that they have in that situation (this free

recall measure was used to allow a more broader comparison against previous caution comprehension studies). The purpose of adding this group was to assess how much the comprehension of legal rights is increased by administering a police caution. It was hypothesized that participants in this group would perform poorly relative to the other group on all measures, but this difference would be largest for the free recall measure due to the reasons provided above (i.e., reintroduction of information and increased opportunity to guess).

## 5.1 Method

**5.1.1 Sample.** Participants ( $N = 116$ ) were undergraduate psychology students from Memorial University. The sample consisted of 47 men ( $M_{age} = 22.09$ ,  $SD = 4.55$ ) and 68 women ( $M_{age} = 21.03$ ,  $SD = 2.94$ ). The average year of study for participants was 2.94 ( $SD = 1.17$ ).

**5.1.2 Materials and design.** The Created caution containing all three of the modifications from Study 3 and the Calgary caution from Study 2 were used in the current study. These two legal counsel cautions were chosen in order to create the greatest difference in potential comprehensibility between two cautions, as measured by reading complexity measures in Study 1 and free recall comprehension measures from Study 2 and Study 3. That is, the Calgary caution was the most complex caution from Study 1 and showed equally low comprehension scores compared to the other cautions tested in Study 2, while the Created/Fully Modified caution received the highest comprehension score from Study 3. The use of these cautions will allow the strongest test of whether or not

conclusions drawn regarding comprehensibility from Study 2 and Study 3, which were based on free recall measures, are supported when more direct measures of comprehension (e.g., true/false, multiple choice) are employed. The two cautions are listed below.

#### Created/Fully Modified Caution

*I am going to read you the police caution. The police caution describes the rights that you have when being interviewed by the police. I want you to listen carefully to the caution as I am reading it and think about the information that you hear. This is important, as I will ask you to tell me what the caution means when I finish reading it. I will start reading the caution now.*

*You have four rights that you need to know about:*

*First, you have the right to hire and talk to your own lawyer right away. This means that you can hire and talk to any lawyer you want before I ask you any more questions.*

*Second, you have the right to free legal advice from a government lawyer right away. This means that you can talk to a free lawyer and get free legal advice before I ask you any more questions.*

*Third, if you want this free legal advice, I will give you a telephone number to call. This means that you can get a phone number from me that will let you call for the free legal advice I just mentioned.*

*Fourth, if you are charged with a crime, you can apply for a free lawyer to help with your case. This means that if you do end up being charged with a crime, you can apply to get a lawyer to help you for free.*

#### Calgary Caution

*I am arresting you. You have the right to retain and instruct a lawyer without delay. This means that before we proceed with our investigation you may call any lawyer you wish or a lawyer from a free legal advice service immediately. If you want to call a lawyer from a free legal advice service, we will provide you with a telephone and you can call a toll-free number for immediate legal advice. If you wish to contact any other lawyer, a telephone and telephone books will be provided to you. If you are charged with an offence, you may apply to Legal Aid for assistance. Do you understand: Do you want to call a free lawyer or any other lawyer?*

A Visual Basic program was designed using Visual Basic 5 software. This program consisted of 22 different forms, each of which was displayed on a computer monitor in sequence. The first form consisted of instructions regarding how to complete the experiment. The second form consisted of a video of an individual reading one of the two legal counsel cautions in its entirety (participants in the Baseline condition did not view this form). The speeds of delivery for the two cautions were below 200 wpm, which

should be conducive to oral comprehension (see Carver 1982; Jester & Travers 1966). The third form presented participants with a scenario where they were asked to imagine they were either a defence lawyer or police officer, depending on the condition, and that their client/suspect was about to undergo a police interview (see Appendix B for details of scenarios). Participants were informed of how important it was that their client/interviewee fully understand his or her legal rights, and asked to describe, in as much detail as possible, everything they would tell their client/interviewee regarding his or her legal rights by typing into the provided text box. As mentioned, participants in the Baseline condition were simply asked to record all the legal rights that they have when in a police interview situation.

The fourth form outlined instructions regarding the upcoming vignettes. Forms five to thirteen contained nine different vignettes (see Appendix B). In each vignette, the interviewee makes a request and the police interviewer responds with either a correct or incorrect response. Participants were asked to decide, based on the police caution that they had heard, whether or not the police interviewer's response was correct. It should be noted that, for each of the nine scenarios, two versions were created – one in which the officer provides a correct response to the interviewee's question and one in which the officer provides an incorrect response. This resulted in a total of 18 scenarios. These 18 were then divided into two sets - each of which contained one version of the 9 scenarios.

Form 14 outlined instructions regarding the upcoming multiple-choice questions. Forms 15 to 21 contained multiple choice questions that assessed knowledge of the legal

rights contained in the cautions (see Appendix B). Finally, form 22 thanked the participants and asked them to notify the experimenter that they had completed the study. All answers provided by participants were saved automatically in a Microsoft Word document. The current study used a 2 (Created caution vs. Calgary caution) x 2 (Lawyer scenario vs. Police officer scenario) x 2 (Vignette set 1 vs. Vignette set 2) between-subjects design, which resulted in eight separate conditions.

**5.1.3 Procedure.** The study was conducted in the Bounded Rationality and Law Lab at Memorial University. Each participant was greeted at the entrance to the lab and directed to one of four computer testing stations. Participants were then asked to read and sign an informed consent form, as well as complete a short demographic questionnaire (i.e., age, gender, year of study). Next, the experimental instructions were outlined briefly, and it was verified that the participant understood how to complete the study. Participants were then provided with a pair of headphones to listen to the videos, assigned randomly to one of the eight conditions, and instructed to begin the experiment. There were no differences in participants' age, gender, or year of study across the conditions. Upon completion of the experiment, each participant received a debriefing form that outlined the purpose of the study. The study took approximately 15 minutes to complete, and participants were given a percentage point in their undergraduate psychology course.

**5.1.4 Coding participant answers.** Participants' answers to the free recall questions were coded by the author using a coding guide constructed to measure participants' comprehension of the four legal requirements contained in the caution (see

Appendix A). For the first requirement, participants received one point if they stated they could *retain/hire a lawyer/counsel* (1a), one point if they stated they could *talk to/instruct a lawyer/counsel* (1b), and one point if they stated this (i.e., 1a and 1b) could be done *without delay/immediately* (1c). For the second requirement, one point was given if participants stated they could *talk to a lawyer/get legal advice* (2a), one point if they mentioned that this legal service was *free* (2b), and one point if they mentioned they could obtain this free legal service *without delay/immediately* (2c). For the third requirement, one point was given if participants stated there was *a number they could call to talk to this free lawyer/get legal advice* (3). For the fourth requirement, one point was given if participants mentioned they could *apply for legal aid* (4a), and one point was given if they mentioned that the application to legal aid was *dependent on them being charged with a crime* (4b). Scores for comprehension of the cautions could range from zero to nine, reflecting each of the nine components which underlie the four requirements. Any extra information reported by participants was not coded.

**5.1.5 Inter-rater reliability.** Reliability of the free recall coding was assessed by having another researcher code all of the answers independently. The researcher was provided with a one-hour training session that covered the practical aspects of coding the answers and the content of the nine-point coding guide. Any confusions pertaining to the task were resolved before the inter-rater reliability commenced. The reliability of coding was measured using Cohen's Kappa (Cohen, 1960) and percentage agreement. The Kappa and percentage agreement (in brackets) for component 1a was .69 (85%), for

component 1b was .68 (84%), for component 1c was .88 (95%), for component 2a was .66 (84%), for component 2b was .69 (85%), for component 2c was .78 (94%), for component 3 was .98 (99%), for component 4a was .53 (96%), and for component 4b was .89 (97%). The average Kappa across all answers was .80 (91%), thus suggesting excellent agreement between the coders (Fleiss, 1981; Landis & Koch, 1977).

## 5.2 Results

**5.2.1 Created/Fully Modified and Calgary cautions.** There were no differences found between the two sets of True/False vignette questions, therefore they were combined in all subsequent analyses. A 2 (Lawyer vs. Police Officer) X 2 (Created/Fully Modified caution vs. Calgary caution) ANOVA was first conducted for the free recall measure. Results showed a significant main effect of caution type,  $F(1, 76) = 14.79, p < .001$ , with greater comprehension for the Created/Fully Modified caution ( $M = 4.85, SD = 2.21, 95\% CI = 4.14$  to  $5.56$ ) than for the Calgary caution ( $M = 3.28, SD = 1.57, 95\% CI = 2.78$  to  $3.78, d = .82$ ). Results also showed a significant main effect of free recall scenario,  $F(1, 76) = 8.95, p = .004$ , with greater comprehension scores in the police interviewer scenario ( $M = 4.68, SD = 1.75, 95\% CI = 4.12$  to  $5.24$ ) than in the lawyer scenario ( $M = 3.45, SD = 2.20, 95\% CI = 2.75$  to  $4.15, d = .62$ ). The interaction effect was not significant. Figure 5.1 displays the percentage of participants who understood each of the nine legal counsel components, along with associated 95% confidence intervals (CI), for the two caution groups. As can be seen, the CI for the Created/Fully Modified and Calgary cautions did not overlap for the components that related to the right to execute

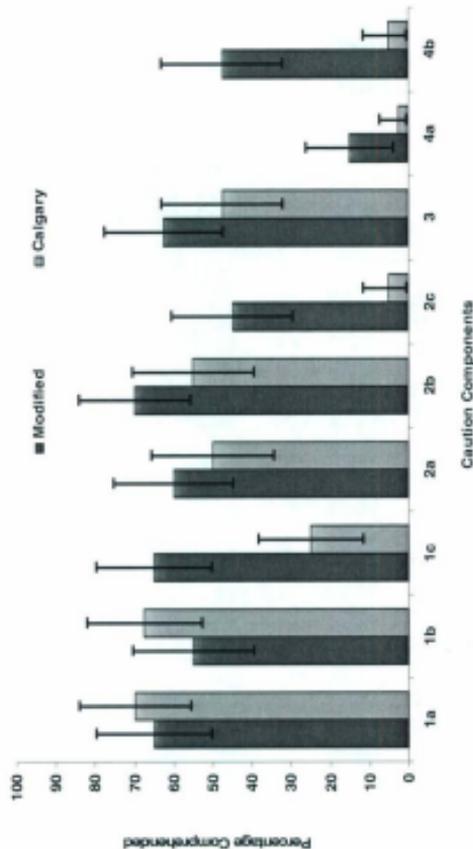


Figure 5.1. The percentage of participants, and associated 95% confidence intervals, who understood each of the nine components of the right-to-legal counsel cautions. Note. Component 1a refers to the right to hire a lawyer; 1b refers to the right to speak to a lawyer; 1c refers to the right to have these rights without delay; 2a refers to the right to legal advice/call a lawyer; 2b refers to the fact that this service (i.e., legal advice/call a lawyer) is free; 2c refers to the fact that access to this service (i.e., legal advice/call a lawyer) can be obtained immediately; 3 refers to the provision of a toll-free number to access free legal advice; 4a refers to the right to apply to legal aid for legal help; 4b refers to the fact that the right to apply to legal aid for help is contingent upon the individual being charged with a crime.

legal rights immediately (i.e., 1c and 2c) and the component outlining the need to be charged with a crime in order to apply for legal aid (i.e., 4b). Across both caution types, comprehension was lowest for the component relating to the ability to access free legal aid immediately (i.e. 2c), and the two components related to procuring legal aid (i.e., 4a and 4b).

In order to identify where the differences in comprehension between the open-ended scenarios occurred, post-hoc tests were conducted for each of the nine legal counsel components using a Bonferroni correction. Results showed that the police interviewer scenario produced significantly higher levels of comprehension than the lawyer scenario on component 2a,  $t(79) = 15.04, p < .001, d = .87$  and component 2b,  $t(79) = 11.72, p = .001, d = .77$ . The percentage of participants who understood the right to free legal advice was 75% (2a) and 80% (2b) for the police officer scenario and 35% (2a) and 45% (2b) for the lawyer scenario.

For the vignettes, an independent samples *t*-test showed no difference between the two cautions,  $t(78) = 0, p = 1, d = 0$ . The average score (out of nine) for the Created/Fully Modified and Calgary cautions was 6.45 ( $SD = 1.11$ ) and 6.45 ( $SD = 1.20$ ), respectively. Table 5.1 contains the percentage of participants who correctly answered each of the nine questions for the two caution groups. As can be seen, with the exception of question 7, the distribution of scores remained similar across the two caution types. For question 7, which related to the provision of a phone number to access free legal advice, scores were

Table 5.1  
*Percentage of Questions Answered Correctly for Each of the Nine Vignette Questions*

Condition	True/False Vignette Question								
	1	2	3	4	5	6	7	8	9
Created/Fully Modified (n = 40)	36 (90%)	32 (80%)	39 (98%)	14 (35%)	35 (88%)	40 (100%)	39 (98%)	15 (38%)	8 (20%)
Calgary (n = 40)	38 (95%)	33 (83%)	40 (100%)	19 (48%)	37 (93%)	38 (95%)	25 (63%)	16 (40%)	11 (28%)
Baseline (n = 36)	34 (94%)	18 (50%)	36 (100%)	4 (11%)	27 (75%)	32 (89%)	26 (72%)	13 (36%)	11 (31%)
Overall (n = 116)	108 (93%)	83 (72%)	115 (99%)	37 (32%)	99 (85%)	110 (95%)	90 (78%)	44 (38%)	30 (26%)

Note. Guessing for each question would result in accuracy levels of approximately 50%.

significantly higher for the Created/Fully Modified caution,  $t(78) = 4.30, p < .001, d = .96$ . Similar to the free recall measures, participants scored lower on questions relating to procuring legal aid (i.e., questions 8 and 9) - regardless of caution condition (average scores less than 50% for both cautions). Average scores were also low for question 4, which related to the type of free legal assistance that can be accessed immediately (i.e., call for advice vs. have a lawyer present).

For the multiple-choice questions, an independent samples *t*-test revealed a significant difference between the two caution types,  $t(78) = 2.43, p = .02, d = .54$ . The average score (out of seven) for the Created/Fully Modified and Calgary cautions was 4.85 ( $SD = 1.15$ ) and 4.28 ( $SD = .96$ ), respectively. Table 5.2 contains the percentage of participants who answered each of the seven questions for the two caution groups correctly. Similar to the vignette measure, the largest difference between the cautions was for the question that outlined the right to receive a phone number to access free legal advice (i.e., question 5), with scores being significantly higher for the Created/Fully Modified caution,  $t(78) = 2.82, p = .006, d = .64$ . Also, similar to both the free recall and vignette measures, scores were lowest for the questions relating to procuring legal aid upon being charged with a crime (i.e., questions 6 and 7) - regardless of caution condition. An examination of the types of errors made on these multiple choice questions revealed that for question 6, 58 (73%) of participants incorrectly chose B (i.e., all suspects have the right to receive a free lawyer to help with their case) instead of the correct

Table 5.2  
*Percentage of Questions Answered Correctly for Each of the Seven Multiple-Choice Questions*

Condition	Multiple Choice Question						
	1	2	3	4	5	6	7
Created/Fully Modified (n = 40)	28 (70%)	39 (98%)	30 (75%)	36 (90%)	34 (85%)	9 (23%)	18 (45%)
Calgary (n = 40)	30 (75%)	35 (88%)	31 (78%)	31 (78%)	23 (58%)	10 (25%)	10 (25%)
Baseline (n = 36)	14 (39%)	33 (92%)	14 (39%)	26 (72%)	21 (58%)	9 (25%)	13 (36%)
Overall (n = 116)	72 (62%)	107 (92%)	75 (66%)	93 (80%)	78 (67%)	28 (24%)	41 (35%)

Note. Guessing for each question would result in accuracy levels of approximately 25%.

answer A (i.e. suspect must apply for a free lawyer to help with their case). For question 7, 47 (59%) of participants incorrectly chose D (i.e., suspects can apply for a free lawyer to help with their case at any time) instead of the correct answer A (i.e., suspects must be charged with a crime).

Correlations were also conducted between the three dependent measures. The correlations between free recall and vignette measures,  $r(78) = -.007, p = .48$  and vignette and multiple-choice measures,  $r(78) = .17, p = .07$  were small and did not reach significance, while the correlation between free recall and multiple-choice measures was slightly larger and did reach significance,  $r(78) = .22, p = .03$ .

**5.2.2. Baseline condition.** The average comprehension score for the free recall measure in the Baseline condition was 0.72 ( $SD = 0.51, 95\% CI = .55$  to  $.89$ ). Component 1a (i.e. right to a lawyer) was mentioned by 24 (67%) participants, with component 1b (i.e. speak to a lawyer) and 2b (i.e. receive legal advice) being mentioned once. No other components were mentioned correctly. Only one participant correctly mentioned more than one component and 11 (24%) participants received a zero on this measure.

The average score on the vignettes for the Baseline condition was 5.58 ( $SD = 1.16$ ). This was significantly lower than both the Created/Fully Modified caution  $t(74) = 3.34, p = .001, d = .77$  and the Calgary caution,  $t(74) = 3.20, p = .002, d = .74$ . Table 5.1 contains the percentage of participants who correctly answered each of the nine questions for the Baseline condition. As can be seen, participants in the Baseline condition matched or outperformed at least one of the caution conditions on four of the nine questions (i.e.,

questions 1, 3, 7, and 9). Similar to the two caution conditions, participants in this condition also scored the lowest on the questions relating to the type of free legal assistance that is available (i.e., question 4) and procuring legal aid to help with their case (i.e., questions 8 and 9).

For the multiple-choice questions, the average score for the Baseline condition was 3.61 ( $SD = .99$ ). This was significantly lower than both the Created/Fully Modified caution,  $t(74) = 5.01, p < .001, d = 1.16$  and the Calgary caution,  $t(74) = 2.96, p = .004, d = .69$ . Table 5.2 contains the percentage of participants who correctly answered each of the seven questions for Baseline condition. As can be seen, participants in the Baseline condition matched or outperformed at least one of the caution conditions on four of the seven questions (i.e., questions 2, 5, 6, and 7). Similar to the two caution conditions, participants in this condition also scored the lowest on the two questions relating to procuring legal aid to help with their case (i.e., questions 6 and 7).

### 5.3 Discussion

The purpose of the current study was to assess the validity of the free recall measures used in the prior studies – as well as to gain a better understanding of the true comprehension of police cautions – by using alternate measures of comprehension. For the modified free recall measure, the Created/Fully Modified caution remained significantly better understood than the Calgary caution, albeit with a smaller effect than that observed in Study 3. Somewhat unexpectedly, comprehension scores were also higher in the modified free recall scenario involving a police officer compared to the

defence lawyer scenario. For the remaining two measures (i.e., vignettes and multiple-choice questions), a difference between caution conditions was only seen for the multiple-choice questions. Correlations between the measures were also small and only one reached significance (free recall & multiple-choice). Results also showed that scores for the two caution conditions were significantly higher on all three measures compared to a Baseline group which did not receive a caution – suggesting that delivering any caution may be better than not delivering it at all. Comparing across all conditions, several legal rights appeared to be consistently misunderstood across all measures, which indicates that more effort should be taken to clarify these rights in interview situations. Overall, these results suggest that free recall measures remain a valid estimate of true comprehension, although better measures are needed in order to draw definitive conclusions regarding actual comprehension levels.

The hypothesis that a modified free recall measure would provide more detailed and accurate answers was not supported. Compared to results from Chapter 3 and Chapter 4, the average comprehension score for the Calgary caution was similar (3.28 vs. 3.53) while the average comprehension score for the Created/Fully Modified caution was reduced (4.85 vs. 6.60). Thus, although the Created/Fully Modified caution remained significantly better understood than the Calgary caution, the effect was lower than what was predicted based on previous studies. One explanation for this finding is that the impact of the listenability modifications on comprehension was lower than originally thought. Alternatively, the modified free recall measures may actually lead people to

report less knowledge than the original measures – a possibility that is supported by the unexpected finding that scores were lower for the defence lawyer scenario than the police officer scenario.

A closer examination of the scores for modified free recall revealed that the differences in errors between the scenarios occurred almost exclusively on components 2a and 2b (i.e., ability to access free legal advice) – with approximately twice as many participants in the lawyer scenario failing to report this information correctly. It is possible that participants in the defence lawyer scenario felt little need to provide their client with information regarding free legal advice, given that they were currently present in the situation as a lawyer and offering legal advice. This suggests that participants were in fact engaged in the scenario, but this engagement actually led to a reduction in the amount of information reported. Interestingly, when looking exclusively at the police officer scenario, the average comprehension score for the Created/Fully Modified was 5.30 – which more closely matches the finding from Chapter 4. These findings suggest that putting people in theoretical scenarios may add a layer of complexity that detracts from the task and leads to a reduction in performance.

The hypothesis that scores on the vignettes and multiple-choice questions would be higher than, and correlate with, the free recall measure was supported partially. Participants received higher relative scores on these two measures, and the multiple-choice measure was significantly correlated with the free recall measure. By contrast, no difference was seen between the caution conditions on the vignettes, and this measure

was not correlated with either of the two other measures. There are at least two explanations for these findings. First, relatively complex cautions with no listenability modifications, such as the Calgary caution, may be comprehended as well as simple cautions with such modifications. That is, although people are unable or unwilling to report back accurately information contained in more complex cautions, which is captured by free recall measures, they are still able to comprehend the information well enough to accurately act upon it. Some partial support for this explanation comes from the fact that while free recall measures identified components 1c and 2c (e.g., can exercise rights immediately) as being consistently missed or misunderstood, almost all participants routinely answered the vignette and multiple-choice questions dealing with this component correctly.

Second, the vignette and multiple-choice measures may allow people to demonstrate more knowledge than they actually have due to the re-introduction of information and the opportunity to guess. This explanation is partially supported by the findings from the Baseline condition, as participants' scores in that condition matched those from the caution conditions for many of the questions despite their not having received a caution or appearing to have any knowledge regarding legal rights according to the free recall measure. Specifically, when comparing across all 17 questions using a Bonferroni correction, scores for the Baseline caution were significantly lower than those in the caution conditions for only 2 questions. Given the difficulty in interpreting the

findings from the vignette and multiple-choice measures, more work is needed before a definitive conclusion can be made regarding the comprehensibility of police cautions.

The hypothesis that scores for a Baseline group of participants, who were asked to answer the questions using previous knowledge, would be lower compared to participants who received a caution was also supported. This discrepancy was largest for the free recall measure, with participants in this condition only reporting the very basic idea that they could get a lawyer. Although scores were higher on the vignette and multiple-choice measures, they remained significantly lower than both of the caution groups. This suggests that delivering a caution, even a relatively complex one, increases comprehension beyond participants' prior knowledge of legal rights.

Results from this study also identified several legal rights that are consistently misunderstood – regardless of condition or comprehension measure. These include the incorrect belief that interviewees have the right to have a lawyer present prior to questioning and a misunderstanding of the rights surrounding how and when legal assistance can be accessed. With regards to the first right (i.e., lawyer present), 13 (36%) participants in the Baseline condition incorrectly reported that they have the right to have a lawyer present on the free recall measure. Participants in all conditions also routinely thought that they could have a free lawyer present during the interrogation, as recorded by question 4 on the vignette measure. This misunderstanding is potentially due to participants' exposure to crime-based shows from the U.S. (e.g., CSI), where interviewees are frequently accompanied by an attorney when being questioned by the

police. This misunderstanding is problematic, given the recent rulings by the Supreme Court of Canada reaffirming that interviewees do not have to be afforded the right to have a lawyer present when being questioned (*R. v. McCrimmon*, 2010; *R. v. Sinclair*, 2010).

The rights concerning legal aid were low across all measures, and results from the multiple-choice questions suggest that there may be a systematic misunderstanding of these rights. Although speculative, it appears that participants are unable to properly differentiate between the rights surrounding duty counsel (i.e., immediate, free legal advice for anyone) and future legal aid (i.e., free legal assistance with their case, which must be applied for, upon being formerly charged at the conclusion of the interview). Arguably the duty counsel rights are more important in the immediate context of the interview, however, the lack of understanding of what services can be accessed *after* the interview could affect interviewees' decisions *during* the interview. These results suggest that interviewers should take special precautions to ensure that interviewees understand the aforementioned rights that are commonly misunderstood.

Overall, the results from this study suggest that the original free recall remains a relatively reliable measure of comprehension. Although alternate measures suggest that people may comprehend some of the components of cautions not mentioned in free recall (e.g., immediacy of rights), and that the difference in comprehensibility between cautions may not be as large as originally thought, the same pattern of responding was seen across all measures (e.g., errors on same caution components). Furthermore, the free recall measure best replicates the situation faced by actual interviewees, as they typically hear

an orally-delivered caution only once in its entirety and comprehension is rarely verified. However, there remains a need to create more accurate measures of comprehension to ensure that people truly know and are able to apply this knowledge in a meaningful way. For example, by putting participants in an interview scenario and measuring when and how rights are acted upon, or by providing video clips of mock interviews and measuring whether or not participants can correctly identify various violations of an interviewee's rights. This study also identified several legal rights that are routinely misunderstood, and interviewers should put emphasis on ensuring that interviewees truly understand these particular rights.

### **Chapter 6: General Discussion**

The purpose of the current series of studies was to use findings from psychological research to modify the content and structure of Canadian police cautions – a passage of text that outlines the legal rights afforded to individuals in an interview situation – in order to increase levels of comprehension. Comprehension of police cautions by individuals being interviewed by the police is important both for the interviewee's protection and for the police interviewer who wishes to ensure that any statements arising from the interview are admissible in court. Despite the importance of ensuring comprehension, research from around the world has shown consistently that people struggle to fully understand the rights delivered through police cautions, even when high-functioning individuals are tested under ideal conditions. Over the course of four studies, the following three tentative conclusions emerged: (1) The current emphasis on readability measures as estimators of comprehension may be misguided, (2) given that cautions are typically delivered orally, modifying them according to various listenability criteria has the potential to increase comprehension, and (3) there are two aspects of legal counsel cautions that are consistently misunderstood. Although more research is needed to measure comprehension under more realistic conditions, several practical recommendations can be made to improve the police cautions currently in use by Canadian police agencies.

As mentioned, research from around the world has demonstrated that people rarely understand their legal rights fully as delivered through police cautions. Although

this lack of comprehension is more prominent in vulnerable individuals such as juveniles and those with cognitive deficits, it also held for relatively high-functioning people such as students and police officers (Clare et al., 1998; Eastwood & Snook, 2009; Moore & Gagnier, 2008). Furthermore, those studies were conducted under highly controlled and stress-free conditions – unlike those present in actual police interviews. One common explanation for the observed lack of comprehension is that police cautions are high in structural complexity, which is calculated using various readability measures. In support of this hypothesis, analyses of police cautions currently in use by police agencies in the U.S. and Britain found that they often scored high on readability formulae such as the Flesch-Kincaid, contained complex sentences and difficult/infrequent words, and were overly lengthy (Gudjonsson et al., 1992; Rogers et al., 2008).

The results from the current research also confirmed that Canadian police cautions, and in particular legal counsel cautions, were overly complex according to these readability measures. That is, they also were composed using complex sentences, contained words that presumably would be difficult for laypeople to understand (e.g., obliged, detained), were relatively lengthy and exceeded the recommended reading level (i.e., > 6<sup>th</sup> grade). This finding was consistent with Moore's and Gagnier's (2008) and Eastwood's and Snook's (2009) finding that comprehension of Canadian police cautions is low, and appeared to support the hypothesis that peoples' difficulties in comprehending their legal rights was due to the complexity of the cautions. The logical solution to increase comprehension, then, would be to utilize less complex cautions as defined by

readability measures – which had been suggested by various researchers in the field (e.g., Rogers et al., 2008).

Despite the intuitive nature of this recommendation, however, the results from the current research demonstrated that cautions that differed greatly in reading complexity did not elicit difference in comprehension. That is, reading complexity measures do not appear to be able to accurately predict actual levels of comprehension. Although based on a single study, this finding potentially has important implications for the current reliance on readability measures within the caution comprehension field. For example, the entire body of psychological research analyzing *Miranda* warnings in the U.S. has relied almost exclusively on reading complexity measures, and in particular readability formulae (e.g., Helms, 2007; Rogers, Harrison, Shuman, et al., 2007). Beyond the caution comprehension field, research on the comprehensibility of documents ranging from informed consent forms to doctor's medical instructions have also relied heavily on readability formula such as the FK formula (Davis et al., 1998; Jolly, Scott, Feied, & Sanford, 1993). While more research is needed to verify the ability of readability measures to predict comprehension and identify the exact situations under which they may be useful, the current research adds support to the skepticism held by some researchers regarding the usefulness of readability formulae (e.g., Charrow & Charrow, 1979; Duffy, 1985).

Granted the lack of predictive validity of readability measures found in the current project, all the recommendations regarding reading complexity should not be disregarded.

For example, the inclusion of words that people cannot define and sentences that are grammatically complex can arguably serve only to lower comprehension of a passage of text. In fact, findings from other areas of the legal field such as research looking at judges' instructions to juries has found that altering instructions according to such psycholinguistic principles can produce an increase, albeit limited, in comprehension (Severance & Loftus, 1982; Steele & Thornburg, 1988). What it does suggest, however, is that changes to cautions beyond simply altering their reading complexity levels are needed to produce the desired level of comprehension.

One potential reason why the lowering of reading complexity failed to increase comprehension centers on the fact that cautions are not typically provided to interviewees' in written format, but instead delivered orally by the police interviewer. Comprehension of orally-delivered information presents a unique challenge because listeners must attend to the information, retain it in working memory, and attempt to decipher the meaning of the information in rapid succession – all while continuing to receive new information and having no opportunity to outwardly review the original information (Shohamy & Inbar, 1991). Passages of text that include characteristics to help deal with these constraints – such as repeating information multiple times and providing cues regarding message structure – are considered to be highly *listenable* (Rubin, 1993). According to the theory of listenability, comprehension of orally-delivered passages of texts should vary depending on the listenability of the text. Empirical tests of this theory, although limited in number, do suggest that verbally-delivered passages of text that are

high in listenability are better understood than those low in listenability (Rubin et al., 2000; Shohamy & Inbar, 1991).

The findings from the current research have important implications for the theory of listenability. Although researchers have outlined some broad guidelines for what characterizes listenable text (e.g., oral-based syntax, organizational cues; Rubin et al., 2000), the literature currently lacks a concrete definition of what exactly constitutes a listenable text. In addition, the aforementioned studies comparing the comprehension of passage of texts that vary in listenability have used passages that defined listenability only in a global sense (e.g., speech vs. magazine article). One major contribution of the current research, then, is that it represents the first attempt to operationalize discrete components of listenability and test their independent effects on comprehension. Results from this attempt were largely successful, as building systematic redundancies into an existing caution produced a large increase in comprehension, and adding instructions and organizational cues produced a small increase in comprehension.

These modifications appear to work by dealing with the aforementioned cognitive demands placed on individuals in listening situations (e.g., simultaneously retain and interpret delivered information) by introducing and structuring the information properly (instructions and listing), as well as providing people with an explicit rehearsal mechanism and allowing them to gain information they may have missed in the initial presentation (explanations). Specifically, the particularly large increase in comprehension seen when explanations were added to the caution may be a result of people being better

able to retain the information in working memory and subsequently encode and recall the information. Although adding instructions and listing to the caution showed smaller effects, their improvements on comprehension may have been due to focusing attention properly and helping organize retrieval, respectively. While the exact reasons for the effect of these modifications remains speculative, these findings help to both strengthen and extend the current theory of listenability by demonstrating that the comprehension of existing passages of text that are delivered verbally can be greatly increased by adding components of listenability to their structure.

Along with improving the comprehension of police cautions, the ability to parcel out and apply discrete components of listenability to passages of text could also be useful in other applied situations where consequential information is delivered verbally. For example, psycho-legal research has shown consistently that juries do not understand instructions from judges regarding how to apply relevant legal guidelines to a particular case. In fact, the one study that presented instructions as they typically occur in actual trials (i.e., orally and only a single time), found that only 25% of the instruction paraphrases made by participants were correct – even when instructions were re-written according to psycholinguistic principles (Steele & Thornburg, 1988). This lack of comprehension is problematic, as it suggests that defendants may not be getting a fair trial and traditional approaches of increasing comprehension by simply altering the structure of the instructions do not appear to increase understanding greatly (see Lieberman & Sales, 1997). Notwithstanding the importance of ensuring that juries understand the

content of the instructions, judges appear to be more concerned with the legal correctness of instructions than their comprehensibility – presumably to avoid having verdicts overturned because of procedural errors (Severance, Greene, & Loftus, 1984). Therefore, they are often hesitant to engage in informal discussions and explanations of the legal instructions and prefer to stick to well-established scripts (Severance & Loftus, 1982). Findings from the current project suggest that judges could continue to deliver legally valid instructions while increasing comprehension by properly introducing and organizing the instructions, as well as by building in redundancy by providing an explanation of each component of the instructions as they are delivered.

The modifications contained in the current project represent only a subset of the potential components of listenability that could be applied to passages of text. As outlined in Rubin (1993) and Rubin and Rafoth (1986), there are a variety of features that characterize a passage of text as listenable (e.g., logical flow of information, clear structural characteristics, avoidance of highly embedded sentences and nominalizations); many of which appear amenable to future operationalization and testing. In addition, the components of listenability that were used in the current research, such as the explanation sentences, would contain different content if an alternate passage of text were being used. Future research is needed to explore the impact of these modifications, as well as others suggested by the theory of listenability, in different situations and with different passages of text. For instance, cautions are relatively short passages of text, and thus different results may be found for longer passages such as typical jury instructions. The cautions

were also presented under ideal conditions with few distractions – the impact of listenability modifications may vary in more realistic situations (e.g., mock interview situation).

Even with the increases of caution comprehension seen with the listenability modifications, the current research highlighted two legal rights that were misunderstood consistently by participants across all cautions and tests of comprehension. The first was the belief that interviewees have the right to have a lawyer present when being interviewed, and that the police must halt the interview until the requested lawyer is present. This belief also extended to the free duty counsel lawyer, with many participants believing that they could have a free lawyer to sit with them during a police interview. The prevalence of this belief is problematic, as recent Canadian legal rulings have made it clear that interviewees do not have the right to halt the interview until their lawyer is present (*R v. McCrimmon*, 2010; *R v. Sinclair*, 2010). As long as interviewees have an opportunity to confer with legal counsel and are satisfied with the advice, the police have no obligation to halt the interview to allow further consultations or wait for a lawyer to be present. Based on the findings from individuals who were asked to report their knowledge of legal rights without hearing a caution, this misunderstanding appears to be a pre-existing belief held by individuals, perhaps due to exposure to U.S.-based crime shows as the right to have an attorney present does exist in that country. Unfortunately, this belief often remains even after being exposed to the caution – which may be a result of the fact that cautions do not explicitly state that individuals do not have the absolute right to have

a lawyer present. Although it could be argued that all interviewees really need is the basic understanding that they can contact legal counsel, interviewees' misunderstanding of this right could potentially reduce confidence in their knowledge and ability to subsequently exercise their legitimate rights. In order to deal with this common misunderstanding, future versions of police cautions may want to include information that clarifies the limits of the right to access legal counsel.

The second legal right that people struggled to accurately articulate was the right to legal aid to help with their case upon being charged with a crime. Many participants simply did not report this right during their free recall, while results from both the free recall and forced choice questions suggest that a large percentage of participants confuse this right with their right to duty counsel (i.e., immediate free legal advice). This confusion is understandable, as both rights include a type of free legal assistance provided by the government. Furthermore, it is arguably more important that the right to duty counsel be understood, as interviewees are most in need of legal advice prior to undergoing an interview. However, a lack of knowledge regarding whether or not legal aid exists during the court process and how the application process works can potentially impact an interviewee's decisions and behaviours during the interview. Interviewees, for instance, may choose to confess to a crime during an interview because – due to a perceived lack of sufficient legal assistance during the court process – they feel they have no hope of avoiding a conviction. Given the requirement that interviewees must be made aware of and understand this right (*R v. Brydges*, 1990; *R v. Bartle*, 1994), police

interviewers should take extra efforts to ensure that interviewees understand the concept of legal aid fully.

The current research represents one of the first attempts to systematically increase the comprehension of Canadian legal counsel cautions by altering their content and structure (also see Davis, Fitzsimmon, & Moore, 2011, for a successful attempt at increasing the comprehension of a Canadian right-to-silence caution). The approach taken in this research was to assess levels of comprehension under highly controlled situations with relatively high functioning individuals. The reason for taking such an approach was to first try and increase comprehension under ideal conditions before moving to more realistic scenarios. It also allowed a high level of control so that the impact of various manipulations could be assessed properly. The obvious limitation to this approach is the relatively low level of ecological validity. That is, cautions are typically delivered in high stress situations to individuals with varying levels of temporary and permanent cognitive deficits, and years of social psychological literature have demonstrated the strong impact that situational variables can have on peoples' behavior (Myers, Spencer, & Jordan, 2009). Therefore, future research is needed to determine whether or not the increases in comprehension found in this research remain when more realistic research paradigms that introduce situational variables are used.

As outlined in the introduction, the current research also focused only on the message (i.e., caution) component of verbal communication while holding sender (i.e., interviewer) and receiver (i.e., interviewee) variables relatively constant. The purpose of

focusing exclusively on the message was that this component appeared to account for much of the observed lack of caution comprehension in previous research. However, both sender and receiver characteristics are likely to have a large impact on comprehension, particularly in actual interview situations. For example, research has shown that interviewers often deliver cautions at speech rates that are higher than what is recommended to facilitate comprehension (Snook et al., 2010), and individuals with mental illness and cognitive deficits are overrepresented in criminal populations (O'Connell et al., 2005). Future research should measure how the caution modifications used here interact with these and other sender and receiver variables.

The purpose of providing interviewees with legal rights is to shift the balance of power back in favour of the interviewee, who is forced to undergo an often lengthy interview at the hands of the police. Interviewees are made aware of their legal rights through the oral delivery of passages of text known as police cautions. In order for these rights to be meaningful protections, however, interviewees must understand and how they can be exercised. Unfortunately, research from Canada and around the world has shown that people struggle to fully understand the information in police cautions. The current research has taken some important first steps towards improving comprehension of legal rights, and there are at least two tentative conclusions that can be drawn regarding Canadian police cautions.

Firstly, in line with previous Canadian and international research, the cautions currently used by Canadian police organizations appear to be largely ineffective in

conveying legal rights. Given that the current project tested high functioning individuals under highly controlled situations, it is unlikely that individuals facing actual police interviewers fully comprehend their legal rights as required by Canadian case law.

Secondly, in order to increase comprehension levels, police organizations should consider modifying their existing cautions according to the listenability components outlined in the current project. That is, cautions can be altered by properly introducing and explicitly organizing the information contained in the caution, followed by explaining the details of each of the legal rights after they are delivered. These relatively straightforward modifications have the potential to greatly increase comprehension of Canadian police cautions.

Despite the observed increase in comprehension, much more research is needed before the goal of creating a comprehensible police caution is accomplished. Comprehension levels, even for a fully modified caution delivered in an ideal situation, remain well below 100%. Given the various situational (e.g., stress) and individual characteristics (e.g., cognitive impairment) that can affect comprehension in a real world police interview, creating a caution which ensures full comprehension for everyone being interviewed by the police may be unrealistic. However, it is hoped that further modifications, tested under more realistic conditions, will eventually produce a caution that police interviewers can deliver and feel confident that the majority of interviewees will fully understand their legal rights. Until such time, it is recommended that police interviewers verify comprehension by using measures such as getting interviewees to

repeat back in their own words their understanding of their legal rights, which should protect both the interviewer and the interviewee alike.

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## Appendix A

### Legal Counsel Caution Coding Dictionary

#### Component 1a – The right to hire/retain a lawyer/legal counsel

Examples – “I can hire a lawyer”, “I have the right to get legal counsel”, “I have the right to a lawyer”, “I can get a lawyer”, “I can have a lawyer”, “I can get my own lawyer”

#### Component 1b – The right to instruct/talk to a lawyer/legal counsel

Examples – “I can talk to a lawyer”, “I have the right to call a lawyer”, “I can instruct a lawyer”, “I am able to contact legal counsel”, “I have the right to consult with a lawyer”, “I can speak with a lawyer”, “I have the right to seek help from a lawyer”

#### Component 1c – I can perform these rights without delay

Examples – “Before I talk to the police”, “before I answer any questions”, “before proceeding any further”, “directly upon being arrested”, “anytime”, “before anything happens”

#### Notes on Component 1:

1. Component 1a is NOT given if participants mention contacting “a lawyer I know”, “a lawyer of my choosing”, “any lawyer I want”. They must make some mention of the lawyer being retained by them. For example “I can talk to *my own* lawyer”, “I can talk to *my* lawyer”, etc.
2. If additional information is provided that qualifies any of the rights in such a way as to make it blatantly incorrect, then the component should NOT be coded as

correct. Example – “It would be a *good idea* for me to have a lawyer”, “I have the right to contact *anyone*”, “I have to right to have a lawyer *present*”.

3. If additional information is provided that is incorrect but does not directly impact or contradict a given right, then the component should be coded as correct.

Example – I have the right to a lawyer, and I can get him/her *when the police decide*”. In this case, component 1a would be coded as CORRECT while component 1c would be coded as INCORRECT.

**Examples of responses:**

3 points: “You are free to speak with a hired lawyer right now”

3 points: “I am able to hire a lawyer immediately and speak with them immediately”

2 points: “I was told I had the right to call a lawyer and that I may call one right now”

2 points: “I was given the option to call a lawyer of my choice (perhaps a personal lawyer”

1 point: “I have the right to contact any lawyer I wish”

1 point: “I have the right to a lawyer”

**Component 2a: The right to talk to a lawyer (duty counsel)/get legal advice**

Examples: "I can get legal advice", "I can talk to a government lawyer", "I can contact a lawyer for advice", "I can call a lawyer from a legal aid service"

**Component 2b: This lawyer/legal advice is free**

Examples: "I can get free legal advice", "I can call a free lawyer", "I can get legal advice that costs nothing"

**Component 2c: This lawyer/legal advice can be received without delay**

Examples: "Right away", "immediately", "before talking to police" (for more examples see Component 1c)

**Notes on Component 2:**

1. For component 2a, if they mention a lawyer, the participants must indicate that they can *call/contact* the lawyer. Some adverbs that should NOT be coded as correct include: "get", "have", "provide", "give", "appointed", "hire", "right to". For example, "I can get a free lawyer" is incorrect. However, if participants mention legal advice, it is assumed that they understand the right refers to contacting a lawyer. For example "I can get legal advice" would be coded as correct for 2a.
2. Points 2 and 3 above also apply to this component
3. The term *legal aid* can apply to both this Component and Component 4a. It was deemed to be referring to 2a when it was mentioned that legal aid could be called,

contacted, etc and referring to 4a when it was mentioned legal aid could be applied for, "gotten", etc.

**Examples of correct responses:**

3 points: "I have the right to free legal advice right now"

3 points: "If I choose I can consult legal advice for free immediately"

2 points: "I can call a free legal lawyer"

2 points: "I can get legal advice right away"

1 point: "I can contact the legal aid service"

1 point: "I can call a government lawyer"

**Component 3: A phone number is provided to contact duty counsel/get legal advice**

Examples: "I was given a number to call", "I could call a 1-800 number to talk to a lawyer", "They gave me a number to call for the advice", "I was given a toll free number", "If I want a number for legal advice it will be given to me"

**Notes on Component 3:**

1. If participants attempt to list the 1-800 number, it is marked as CORRECT regardless of whether or not the number they list is incomplete or incorrect.
2. Notes 2 and 3 for Component 1 also apply

**Examples of responses:**

1 point: "If I wanted to use a free service lawyer they would provide a toll free number"

1 point: "I am within my rights to call a free lawyer whom I can call via a 1800 number"

**Component 4a: Can apply to legal aid/get free lawyer to help with case**

Examples: "Eligible to apply for a government assistance lawyer", "You can apply to have a lawyer for your case", "You can talk to someone about applying for legal aid", "you can apply to have one represent you in court"

**Component 4b: Application dependent on being charged with a crime**

Examples: "If you are charged with a crime"

**Notes on Component 4:**

1. For Component 4a, participants must mention that legal aid isn't automatically provided and that they must apply for it. Some adverbs include "process", "possibility", "may be able to". For example, "getting legal aid is a possibility" would be score as CORRECT. Some INCORRECT adverbs include "can", "will", etc. For example, "I will be given a free lawyer to help with my case".
2. The term "conviction" was NOT coded as correct for 4b.
3. The term "if you can't afford a lawyer, then...", or similar phrases do NOT count as correct for 4a.
4. Notes 2 and 3 for Component 1 also apply

**Examples of responses:**

2 points: "If you are subsequently charged with a crime, you are then eligible to apply for a government assistance lawyer"

2 points: "I can apply for a free lawyer to help me with my case when I am charged with a crime"

1 point: "you can apply for legal aid"

1 point: "if you are charged with a crime you will get legal aid"

**Appendix B****Test of Legal Counsel Caution Comprehension****Free Recall Scenarios****Lawyer**

Imagine that you are a defense attorney and your client is about to undergo a police interview. You want to make sure your client is fully aware of his legal rights so that he is prepared for the interview. As an experienced lawyer, you know that failing to mention even one detail could put your client at a large disadvantage. **Based on the police caution you just heard**, please record in the box below everything that you would tell your client regarding his legal rights.

**Police Officer**

Imagine that you are a police officer conducting an interview with a suspect in a very important case. You want to make sure that the suspect is fully informed about his legal rights so that any statement he makes will be allowed in court. As an experienced police officer, you know that failing to mention even one detail could lead to a guilty suspect going free. **Based on the police caution you just heard**, please record in the box below everything that you would tell the suspect regarding his legal rights.

**Vignettes**

**Question 1.** After the police officer reads the police caution, the suspect asks for a phone book so he can choose a lawyer to hire. The police officer replies

Incorrect - [*I'm sorry, but if you don't already have a personal lawyer it's too late.*.]

Correct - [*Not a problem, you can hire any lawyer you want.*.]

**Question 2.** After the police officer reads the police caution, the suspect asks for a phone so he can call his friend. The police officer replies

Correct - [*I'm sorry, but you can only call your lawyer.*.]

Incorrect - [*Sure, you can call your friend if you want.*.]

**Question 3.** After the police officer reads the police caution, the suspect says that he has a personal lawyer and would like to speak to this lawyer immediately. The police officer replies

Incorrect - [*I want to talk about the crime for a bit first, and then you can talk to your lawyer.*.]

Correct - [*That's fine, you can call your lawyer now.*.]

**Question 4.** After the police officer reads the police caution, the suspect says he would like a government lawyer to sit with him during the interrogation. The police officer replies

Incorrect – [*“Sure, I can get a government lawyer down here to the station”*]

Correct – [*“I’m sorry, but you can only call a government lawyer for advice”*]

**Question 5.** After the police officer reads the police caution, the suspect says he would like some free legal advice. The police officer replies

Incorrect – [*“Well, for a small fee you can call a government lawyer for advice”*].]

Correct – [*“Sure, you can call a government lawyer for free advice”*].]

**Question 6 (negative).** After the police officer reads the police caution, the suspect says he would like some free legal advice immediately. The police officer replies

Incorrect – [*“I just have a few quick questions about the crime, and then you can call for the free legal advice”*]. ]

Correct – [*“Sure, you can call for the free legal advice now”*]

**Question 7.** After the police officer reads the police caution, the suspect asks how he can access the government lawyer for advice. The police officer replies

Correct – [*“I can give you a phone number to reach the government lawyer”*]

Incorrect – [*“I can give you a phone book and you can find the number in there”*]

**Question 8.** At the end of the interview, the suspect asks to be assigned a free government lawyer to help with his case. The police officer replies

Incorrect – [*“Sure, you can be assigned a free government lawyer to help with your case right away”*]

Correct – [*“I’m sorry, you can only be assigned a free government lawyer to help with your case if you are charged with a crime”*]

**Question 9.** At the end of the interview, the suspect is told he is being charged with a crime. The suspect says he would like help with his case from a free government lawyer. The police officer replies

Incorrect – [*“Sure, everyone is entitled to a free lawyer to help with their case”*.]

Correct – [*“You first have to apply to see if you are eligible to get help from a free lawyer”*]

**Multiple Choice Questions**

1. Suspects facing a police interview have the right to:
  - a. Hire and call a lawyer
  - b. Call a friend for advice
  - c. Have a lawyer present during the interview
  - d. Call a relative for advice
  
2. Suspects facing a police interview can talk to his/her lawyer:
  - a. When the police officer decides to let him
  - b. After answering some initial questions
  - c. After he is charged with a crime
  - d. Before answering any questions
  
3. Along with calling his own lawyer, suspects facing a police interview can:
  - a. Call a government lawyer if he is willing to pay a small fee
  - b. Get advice from a government lawyer for free
  - c. Have a government lawyer present during the interview
  - d. Call a friend or relative for advice

4. Suspects facing a police interview can get free legal advice from a government lawyer:
  - a. When the police officer decides to let him
  - b. Before answering any questions
  - c. After he is charged with a crime
  - d. After answering some initial questions
  
5. In order to access free legal advice from a government lawyer, the police officer must provide suspects with:
  - a. A phone book which contains the yellow pages
  - b. A list of names and numbers for local lawyers
  - c. A telephone number to contact a government lawyer
  - d. The police officer does not have to provide the suspect with anything
  
6. With regards to receiving a free lawyer to help with their case:
  - a. Suspects must apply for a free lawyer to help with their case
  - b. All suspects have the right to receive a free lawyer to help with their case
  - c. The police officer decides whether or not a suspect can get a free lawyer to help with their case
  - d. Suspects do not have the right to get a free lawyer to help with their case

7. In order to apply for a free lawyer to help with their case, suspects must:
- a. Be accused of a serious crime
  - b. Be charged with a crime
  - c. Suspects do not have the right to get a free lawyer to help with their case
  - d. Suspects can apply for a free lawyer to help with their case at any time





