

# Measuring and Predicting Police Caution Comprehension in Adult Offenders

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*Nous avons mesuré le taux de compréhension de deux mises en garde données par les policiers auprès d'un échantillon de contrevenants adultes canadiens et avons prédit leur compréhension à l'aide de trois moyens de mesure d'habiletés intellectuelles (c.-à-d. la mémoire opérationnelle, le vocabulaire et la compréhension auditive). Les participants (N = 60) ont dû écouter à une mise en garde sur le droit au silence et une autre sur le droit à un avocat, puis les interpréter. Les résultats démontrent que les contrevenants ont compris 30 % de leurs droits et que les mesures d'habiletés intellectuelles étaient de mauvais prédicteurs de compréhension. Les impacts de ces résultats sur notre compréhension des facteurs liés à la compréhension des mises en garde et à la gestion de la justice sont examinés.*

*Mots clés : mises en garde par la police, Charte canadienne des droits et libertés, habileté intellectuelle, justice, interrogatoires, contrevenants*

*We measured the level of comprehension of two police cautions in a sample of adult Canadian offenders and predicted comprehension with three measures of cognitive ability (i.e., working memory, vocabulary knowledge, and listening comprehension). Participants (N = 60) were asked to listen to both a right to silence and right to legal counsel caution and then interpret them. Results showed that the offenders understood 30% of their rights, and the measures of cognitive abilities were weak predictors of comprehension. The implications of these findings for understanding the factors related to caution comprehension and the administration of justice are discussed.*

*Keywords: police cautions, Canadian Charter of Rights and Freedoms, cognitive ability, justice, interrogations, offenders*

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## Measuring and Predicting Police Caution Comprehension in Adult Offenders

In Canada, individuals detained by a police officer for questioning about their potential involvement in criminal activity are typically informed about their right to silence and their right to access legal counsel, both of which are guaranteed by the Charter of Rights and Freedoms (the Charter) (1982). It is imperative that detainees comprehend the two sets of rights fully because it ensures that (a) their decision to talk to the police is voluntary and based on an informed understanding of their rights and (b) any statement obtained by the police interviewer and subsequent evidence obtained from the statement are admissible in court (e.g., Marin 2004). Although research has shown that university students struggle to comprehend the content of police cautions (i.e., passages of text that contain the legal rights just described) (Eastwood and Snook 2010; Moore and Gagnier 2008), no research has examined how well adult Canadian offenders understand these cautions or what factors affect *their* comprehension. In the current study, we measure caution comprehension in a sample of offenders and predict comprehension levels with three measures of cognitive ability.

The rights afforded to detainees in Canada are contained in the Charter and include the right to silence and the right to legal counsel. The right to silence is derived from section 7 of the Charter and includes the imperative that detainees must be given a choice whether or not to speak to the police and that the police cannot do anything to interfere with this right (e.g., offer threats or promises in exchange for a statement; see *R v Hebert* 1990). The right to legal counsel is contained in section 10(b) of the Charter and states that, upon arrest or detention, individuals have the right to retain and instruct legal counsel without delay. As outlined in subsequent case law, the right to legal counsel has four main components: (a) to retain legal counsel without delay, (b) to have immediate access to duty counsel and to obtain legal advice free of charge, (c) to have information about how to access these services, and (d) to have access to a Legal Aid lawyer if the suspect meets the financial criteria set by the government (*R v Bartle* 1994; *R v Brydges* 1990).

Although interviewers are only required to deliver the legal counsel caution, both cautions tend to get delivered (Snook, Eastwood, and MacDonald 2010). Due to the power differential between a police

officer and a detainee, legal rulings have stipulated that an interviewee can only waive his or her rights if s/he does so voluntarily, without intimidation, coercion, or deception. For a decision to be considered voluntary, detainees must also have full knowledge of their legal rights and appreciate the consequences of waiving those rights (*Clarkson v The Queen*; *Korponay v Attorney General of Canada*). As mentioned, a failure to show that a detainee understood their rights means that the person's rights were not being protected and that any statement taken – and further evidence collected as a result of that statement (e.g., using what the detainee says to obtain a search warrant that ultimately produces incriminating evidence) – may be ruled inadmissible in court (see [Marin 2004](#)).

In one of the first attempts to measure the comprehension of Canadian cautions, [Moore and Gagnier \(2008\)](#) found that comprehension levels of university students was similar across four versions of a right to silence caution. They found that only 43% of the students demonstrated full comprehension and 15% did not understand any of the caution. A similar study by [Eastwood and Snook \(2010\)](#) found that only 4% understood the right to silence caution fully when presented verbally in its entirety. When it was presented in written, sentence-by-sentence format, 48% of participants understood the entire caution. For the legal counsel caution, only 7% displayed full comprehension when the caution was presented verbally in its entirety, but 32% of participants understood it fully when it was presented in written, sentence-by-sentence format. A third study, which presented three groups of university students with legal counsel cautions that varied in complexity, found that, regardless of the complexity of the caution received, participants comprehended approximately 30% of their legal rights ([Eastwood, Snook, and Chaulk 2010](#)). Eastwood et al. also reported that only 23% of participants comprehended more than half of their legal rights. The central message from these studies is that comprehension of Canadian cautions is inadequate.

The samples used in past studies of police caution comprehension have consisted of university students. It remains unknown whether or not the results found in those studies generalize to offenders. On the one hand, most offenders have had experience with the cautions and the justice system and it would seem reasonable to assume that this exposure would lead to increased understanding of their rights and how to exercise them. On the other hand, the comprehension of

legal rights by offenders may be hindered by the fact that such individuals are more likely to have, singly or in combination, mental illness, intellectual disabilities, learning disabilities, and low education and literacy levels (e.g., Haigler, Harlow, O'Connor, and Campbell 1992; O'Connell, Garmoe, and Goldstein 2005; Teplin 1994). Although no research exists in a Canadian context, research from the United States and the United Kingdom suggest that the latter explanation may be most accurate (e.g., Fenner, Gudjonsson, and Clare 2002; Grisso 1981).

An original set of studies by Grisso (1981) examined *Miranda* comprehension in juvenile and adult offenders. Grisso's results showed that only 21% of the juveniles and 42% of the adults understood the entire *Miranda* warning that was presented to them. A second study of *Miranda* comprehension using defendants recruited from a state hospital showed a similarly low level of comprehension of the legal rights contained in the warnings (Rogers, Harrison, Hazelwood, and Sewell 2007). Research from the United Kingdom has shown an even lower level of comprehension of their police caution. For instance, one study showed that not a single suspect was able to demonstrate a complete understanding of her or his rights (Fenner et al. 2002). Similar findings have been reported in other studies carried out in England (Clare, Gudjonsson, and Harari 1998) and Scotland (Cooke and Philip 1998). Given that providing cautions and warnings to suspects before questioning is mandatory in all these countries, previous involvement with the justice system does not appear to lead to an increase in comprehension.

Along with the complex nature of the cautions themselves (e.g., Eastwood et al. 2010; Rogers, Harrison, Shuman, Sewell, and Hazelwood 2007), one explanation for the low level of comprehension in offenders seen in previous studies has been the role of various cognitive factors. For example, in the study by Grisso (1981) mentioned earlier, overall IQ was a strong predictor of the level of *Miranda* warning comprehension (also see Everington and Fulero 1999). Research has also shown that Verbal IQ is related to police caution comprehension (Cooke and Philip 1998). In addition, some symptoms of psychopathologies such as schizophrenia and substance abuse – which are over-represented in prison populations (Teplin 1990) – are associated with adverse effects on certain aspects of cognitive functioning, including attention, working memory, cognitive control, and the learning of new information (Castaneda, Marttunen, Suvisaari,

Perälä, Saarni, Aalto-Setälä, Aro, Lönnqvist, and Tuulio-Henriksson 2010; Fals-Stewart and Bates 2009; Palmer and Jeste 2006). Knowledge about the cognitive abilities of prison populations suggests that cognitive factors will affect caution comprehension.

This study extends previous research in two important ways. First, this research represents the first attempt to determine caution comprehension level using a sample of adult Canadian offenders. Second, this study is the first to examine the relationship between cognitive ability (i.e., working memory, vocabulary knowledge, and listening comprehension) and comprehension of Canadian police cautions. These three abilities were chosen based on specific abilities needed for comprehension that have been proposed in previous research (Eastwood et al. 2010; Fenner et al. 2002) and the results of other studies that examined components of cognitive functioning as it relates to caution comprehension (Rogers, Harrison, Hazelwood et al. 2007).

The results of previous research with university students in Canada and offender populations in the United States and United Kingdom suggest that participants will demonstrate poor (< 50%) understanding of their legal rights and that those scoring higher on all of the cognitive tests will show greater understanding of the cautions as compared to their counterparts.

## **Method**

### **Participants**

An opportunistic sample was obtained through the John Howard Society (JHS) of Newfoundland and Labrador. The final sample consisted of 60 individuals who were convicted of a criminal offence and were receiving service through the JHS. All participants were adults over the age of 19 years and the mean age was 37.75 ( $SD = 12.33$ , Range: 19–74). Fifty-seven of the participants were men. Fifty-three of the participants indicated that they were Caucasian, 6 were Aboriginal, and 1 was African. The average number of years of education reported was 11.45 ( $SD = 2.53$ , Range: 7–19). Twenty participants had completed high school or its equivalent, and 57 had been previously incarcerated. The mean number of self-reported caution exposures across all participants was 16.32 ( $SD = 20.90$ ).

## **Materials**

The materials included a willingness-to-participate form, an information letter, an informed consent form, a demographics questionnaire, a history questionnaire, a debriefing form, the Wechsler Adult Intelligence Scales (WAIS-IV) (Wechsler 2008), The Woodcock-Johnson Tests of Achievement (WJ-III) (Woodcock, McGrew, and Mather 2007), Royal Canadian Mounted Police cautions (i.e., right to silence and right to legal counsel), two police caution videos, audio recording software (i.e., Garage Band '08 for Mac), and a laptop.

### **RCMP cautions**

The two cautions used in this study were taken from the Royal Canadian Mounted Police ("B" Division, Newfoundland and Labrador), and read as follows:

#### **Right to Silence caution:**

You do not have to say anything unless you wish to do so. You have nothing to hope from any promise of favour and nothing to fear from any threat whether or not you say anything. Anything you say may be used as evidence.

#### **Right to Legal Counsel Caution:**

It is my duty to inform you that you have the right to retain and instruct counsel of your choice in private and without delay. Before you decide to answer any question concerning this investigation you may call a lawyer of your choice or get free advice from Duty Counsel. If you wish to contact Legal Aid duty counsel I can provide you with a telephone number and a telephone will be made available to you.

Two separate police caution videos were recorded – one containing the right to silence caution and one containing the right to legal counsel caution. Each of the two cautions was read by an adult male at a rate of speaking that ensured an opportunity for comprehension (i.e., < 200 words per minute) (see Carver 1982; Jester and Travers 1966).

### *Predictors*

Cognitive abilities were measured in the current study by using the WAIS-IV and the WJ-III. The WAIS-IV is a standardized test with well-established psychometric properties (Groth-Marnat 2009). Two subtests of the WAIS-IV – Vocabulary and Digit Span – were used to measure vocabulary knowledge and working memory, respectively. Vocabulary assesses the participants' accumulated verbal learning, language development, and word knowledge by requiring participants to explain the meaning of a list of words verbally. Digit Span is a test of working memory and attention that requires the participant to recall and repeat auditory information in a proper sequence. These subtests are scored using age-corrected scaled scores ranging from 1 to 19, with the average range being 8 to 12 (based on the normative Canadian population).

The WJ-III, a standardized test with excellent psychometric properties, was also used (Groth-Marnat 2009). Specifically, the Understanding Directions subtest was used to gauge listening comprehension. This subtest requires a participant to listen to a set of instructions and follow the directions by pointing to objects in a picture in a specified order. Understanding Directions has been shown to be a valid measure of achievement and has convergent validity with other measures of intelligence and achievement (Groth-Marnat 2009; McGrew, Schenk, and Woodcock 2007). The WJ-III yields scores from 0 to 18, reflecting estimated grade-level performance (Woodcock et al. 2007). All cognitive tests were administered by the first author – a trained examiner – and did not require the examinee to read or write.

### *Participant recruitment*

Potential participants were approached by JHS staff and asked about their interest in participating in the study and were provided with a willingness-to-participate form. The executive director of the JHS gave permission to conduct this research within their organization and for their staff to facilitate the recruitment of participants. All information contained within the willingness-to-participate form was communicated verbally to each participant to accommodate any potential literacy issues. Each participant was given \$10 for participation in the study. The individuals who agreed to participate were scheduled for an appointment by JHS staff, and the first author was informed of the appointment times and dates.

## Procedure

Each testing session lasted approximately one hour, and all sessions occurred in an office at the JHS. Each session began by providing participants with an information letter and a consent form. The first author informed the participant of all information contained within both forms verbally. Verbal consent was obtained and documented by recording the date and the researcher's initials on the consent form before proceeding. The caution comprehension tasks were counter-balanced by the cognitive measures, and the delivery order of the two police caution videos and the three cognitive tests were also counter-balanced. For the caution comprehension task, participants watched a police caution video of an adult male reading one of the police cautions and, after viewing the video, each was then asked to express verbally what s/he understood and could remember from the video. Participants were probed up to three times if they failed to recall all the information contained in the caution. This procedure was then repeated with the second police caution video. The first author administered the three cognitive tests. The participant then completed a demographic information and history questionnaire and was debriefed.

## Coding participant answers

Participants' answers were transcribed from the audio recordings into Microsoft Word documents. The responses were then coded by the first author, using a coding guide constructed to measure participants' comprehension of the content of each caution. Scores for comprehension of the right to silence cautions could range from 0 to 4, with participants receiving one point for stating they had the *right to silence* (1a), one point if they mentioned that *police can't offer promises* (1b), one point if they mentioned that *police can't make threats* (1c), and one point if they mentioned *anything said can be used as evidence* (1d). Scores for comprehension of the right to legal counsel cautions could range from 0 to 9, with participants receiving one point if they stated they could *retain/hire a lawyer/counsel* (2a), one point if they stated they could *talk to/instruct a lawyer/counsel* (2b), one point each if they stated that this (i.e., 2a and 2b) could be done *right now/without delay* (2c) and *in private* (2d), one point if they stated they could *talk to duty counsel/legal aid* (3a), one point each if they mentioned that this legal service (i.e., 3a) could be accessed *immediately* (3b) and for *free* (3c), and one point if they mentioned they could receive a *telephone number* (3d) and *telephone* (3e) to access duty counsel (a detailed coding guide can



be obtained by contacting the corresponding author). The comprehension scores for both cautions were calculated, with the right to silence being scored out of 4 and the right to legal counsel being scored out of 9. The caution scores were also combined and each participant was given an overall comprehension score out of 13. The means were then converted to percentages to indicate the proportion of legal rights comprehended.

### ***Inter-rater reliability***

The second author was provided with a coding guide and a 1-hour training session that covered the practical aspects of coding the answers and the contents of the coding guide. The second author then coded 32% ( $n = 19$ ) of the transcripts. 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 0.42 (68%), for component 1b was (95%; Kappa could not be calculated as one coder did not code any participants as recalling this component), for component 1c was 1.00 (100%), for component 1d was 1.00 (100%), for component 2a was 0.68 (84%), for component 2b was 0.89 (95%), for component 2c was 0.57 (79%), for component 2d was 1.00 (100%), for component 3a was 0.17 (68%), for component 3b was 0.64 (95%), for component 3c was 1.00 (100%), for component 3d was 1.00 (100%), and for component 3e was 1.00 (100%). The average Kappa across all answers was 0.76 (91%), suggesting an acceptable level of agreement between the coders (Fleiss 1981; Landis and Koch 1977).

### **Results**

On average, the participants understood 30% of the components comprising the police cautions. The mean number of components comprehended (out of 13) was 3.87 ( $SD = 1.89$ ; Range: 1–8). Seven (11.66%) of the participants recalled more than half ( $> 54\%$ ) of the information contained within the cautions. The maximum number of components that were correctly recalled was 8 (61.53%), which was achieved by five (8.33%) participants. The average amount of information comprehended from the right to silence caution was 37.00% ( $M = 1.48$ ,  $SD = 0.93$ , Range: 0–4) compared to 26.67% ( $M = 2.40$ ,  $SD = 1.44$ , Range: 0–9) of the right to legal counsel caution. This difference was statistically significant ( $t(59) = 3.19$ ,  $p = 0.002$ ).

**Figure 1: Percentage of participants in the caution condition who correctly recalled the four components of the right to silence caution**

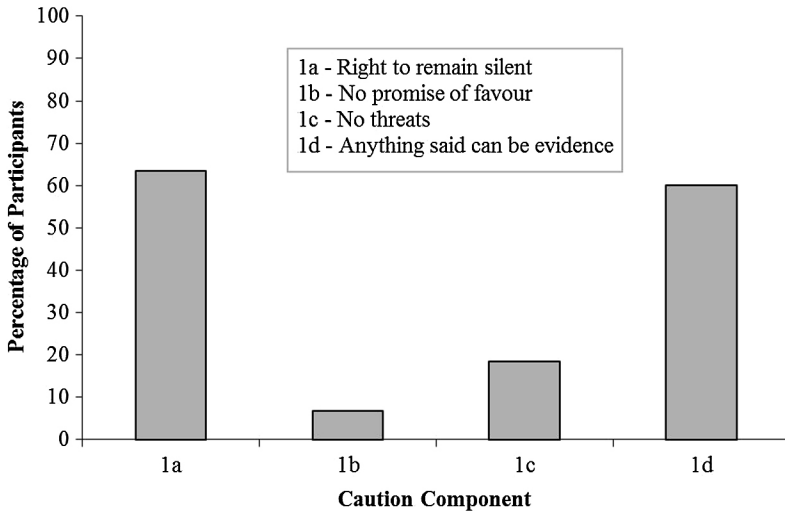
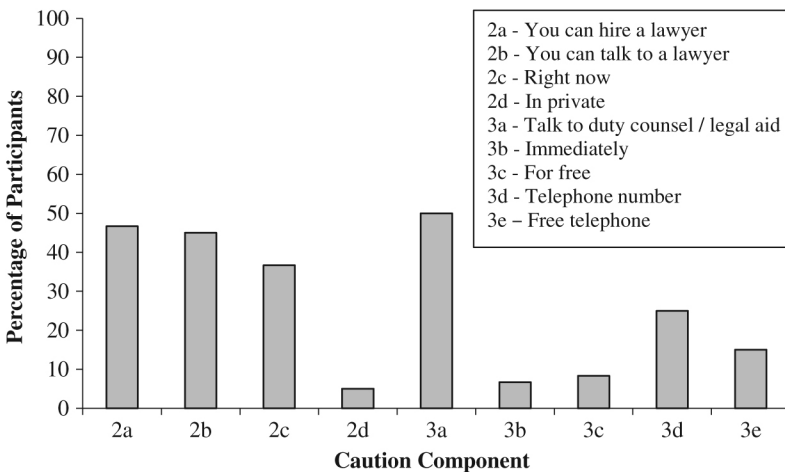


Figure 1 shows the percentage of participants who recalled each of the four components comprising the right to silence caution. As can be seen, the majority of participants (i.e.,  $\geq 60\%$ ) recalled components 1a

**Figure 2: Percentage of participants in the caution condition who correctly recalled each of the nine components of the right to legal counsel caution**



(*right to silence*) and 1d (*used as evidence*), while few participants (i.e.,  $\leq 20\%$ ) recalled components 1b (*can't offer promises*) and 1c (*can't make threats*).

Figure 2 shows the percentage of participants who recalled each component comprising the right to legal counsel caution. As can be seen, only component 3a (*talk to duty counsel/legal aid*) was recalled by at least half of the participants (i.e., 50%), while 5 components were mentioned by less than a third of participants: 2d (*in private*), 3b (*accessed immediately*), 3c (*accessed for free*), 3d (*telephone number*), and 3e (*free telephone*).

On average, participants scored below average on working memory ( $M = 7.13$ , 16th percentile,  $SD = 2.83$ , Range: 1-14) and vocabulary knowledge ( $M = 5.67$ , 9th percentile,  $SD = 2.91$ , Range: 1-14). The average score on the measure of listening comprehension was 6.41 ( $SD = 3.37$ , Range: 1-18), which translates into average listening comprehension skills at a 6th grade level. It should be noted that – as calculated by the Flesch-Kincaid formula in Microsoft Word – the right to silence caution in this study is written at a 6.2 grade level and the right to legal counsel is written at an 11.6 grade level.

Small positive correlations were found between the free recall score and working memory ( $r = 0.12$ ,  $p = 0.13$ ), vocabulary ( $r = 0.28$ ,  $p = 0.03$ ), and listening comprehension ( $r = 0.22$ ,  $p = 0.09$ ). To determine whether the three measures of cognitive abilities could predict participants' overall comprehension levels, a standard multiple regression analysis was conducted. Results showed that none of the cognitive measures could account for the variance within the caution comprehension scores. The three predictor variables together were able to predict 8.5% of the variance in the caution comprehension scores ( $R^2 = 0.09$ ,  $F(3, 56) = 1.74$ ,  $p = 0.17$ , 95% CI (-1.07, 3.65)).

## Discussion

This study examined the level of police caution comprehension in a sample of adult offenders, along with the possibility of using cognitive ability to predict comprehension performance. Consistent with our first hypothesis and previous research with non-offender samples, we found that participants understood around one-third of the components comprising their legal rights (see Eastwood et al. 2010; Fenner et al. 2002). In contrast to our second hypothesis, cognitive abilities

were only able to predict a small amount of the variance in caution comprehension scores. These two sets of findings reinforce the need to improve the comprehension of police cautions to ensure the protection of the legal rights of Canadian citizens as well as the need to seek alternative explanations for the low level of comprehension.

We found that a sample of Canadian offenders had a relatively limited knowledge of their legal rights as contained within these cautions, which matches the findings of previous studies using the same procedure with university students (Eastwood et al. 2010). It is a common belief that people who are involved with the justice system have a working knowledge of their legal rights through their experience with the system (Brown, Ellis, and Larcombe 1992). However, the results of the current study, in line with those from previous research (Fenner et al. 2002; Grisso 1981), suggest that such an assumption is unwarranted. Along with the complexity of the cautions themselves mentioned earlier, one likely explanation for experience not leading to increased comprehension comes from some research suggesting that police interviewers rarely verify understanding when delivering the cautions and tend to recite the rights verbatim (see Snook et al. 2010). The lack of feedback provided to suspects and accused persons about the comprehension of the rights means that possible misunderstandings or misconceptions are not identified and dealt with and that offenders, therefore, do not fully understand their rights despite past experience with police cautions.

With regards to the components contained within each caution, some components were recalled more frequently than others. Similar to Eastwood and Snook's (2010) findings with a sample of university students, the majority of participants did not correctly recall their rights pertaining to threats/promises from the police in exchange for making a statement, or their right to a telephone and telephone number to call a lawyer for free and immediate legal advice (i.e., duty counsel). Also, as in Eastwood and Snook (2010), participants showed a greater overall understanding of the silence caution compared to the legal counsel caution. The lack of comprehension of the components mentioned earlier, the majority of which were contained in the legal counsel caution, may be due to the greater length and grammatical complexity of the legal counsel caution (see Eastwood et al. 2010). An alternative explanation is that the components that were poorly understood are ones that are not contained in the typical *Miranda* warning so prevalent on American television crime shows, while the

better understood components are frequently mentioned in these contexts (e.g., right to remain silent, anything said will be held against you). Regardless of the reason for the lack of comprehension, more effort is needed to ensure that interviewees are fully aware of all their legal rights.

As expected, the participants in the current study had cognitive abilities that were below average as compared to a Canadian normative population. For instance, the sample scored well below the 20th percentile in both working memory (16th percentile) and vocabulary knowledge (9th percentile), and had an overall estimated grade level of 6th grade for listening comprehension. However, these factors were unable to account for a significant amount of variance in caution comprehension scores, and only small positive correlations between caution comprehension and cognitive ability scores were found (i.e., all coefficients were  $< 0.3$ ). It is possible that the measures of cognitive ability were not predictive of caution comprehension because of the limited amount of variance in the resulting comprehension scores – that is, a floor effect occurred. This explanation seems likely, given the strength of the evidence emanating from past research concerning the role of cognitive abilities in caution comprehension (e.g., [Cooke and Philip 1998](#); [Fenner et al. 2002](#); [Fulero and Everington 1995](#); [Rogers, Harrison, Hazelwood et al. 2007](#)). If overall comprehension levels were improved through alterations to the current police cautions, these factors might become useful for predicting comprehension.

There are at least three limitations to the current study that deserve mention. First, the generalizability of the findings may be limited because participants are self-selected into the study. Second, the fact that participants did not report certain aspects of the cautions does not guarantee that they did not comprehend them. Although free recall is a commonly accepted way of measuring comprehension in a range of domains such as law and medicine (e.g., [Charrow and Charrow 1979](#); [Crane 1996](#); [Gudjonsson and Clare 1994](#)), and the findings of the current study match those from previous research on Canadian police caution comprehension, it remains an indirect test of comprehension. It is also important to note that comprehension is not possible if people are unable to remember what it is they need to understand. Third, although the overall percentage agreement for the inter-rater coding was excellent (i.e., 91%), there were two components where agreement was lower (i.e., 1a and 3a; ~70%) – which is likely a result of trying to interpret fragmented and non-linear responses from

participants. However, attempts were made to be liberal with the final coding (i.e., give credit for a component if there was any evidence that it was understood), and given that there was 95% or better agreement on the majority of components, it is unlikely that these components affected our conclusions.

Laboratory-based research with university student samples suggests that Canadian police cautions are difficult to comprehend (e.g., Eastwood et al. 2010; Moore and Gagnier 2008). The findings reported here suggest that a similar problem exists with Canadian offenders and that they likely remain unprotected during interrogations (assuming the rights are merely recited off a police caution card like they were in this study; see Snook et al. 2010). In addition, it is likely that many of the instances where rights were waived were invalid because the person waiving the rights simply did not understand what those rights were, and according to case law, the resulting statements could be ruled inadmissible in court (Marin 2004). To rectify this problem and improve the administration of justice in Canada, more effort must be taken to ensure police cautions are comprehensible to those for whom they are ostensibly designed (see Eastwood and Snook 2012; Davis, Fitzsimmons, and Moore 2011 for recent advances in this area). Further research is also needed to identify more directly the reasons for the lack of caution comprehension, given the inability of cognitive measures to account for the low comprehension levels. Until then, it is recommended that police interviewers go beyond a simple recitation of police cautions and verify that comprehension has occurred – by getting detainees to explain the content of the cautions in their own words.

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