A STUDY ON THE POWER OF STORIES TO PERSUADE SUSPECTS TO CONFESS

by

© Weyam Fahmy

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Abstract

The effectiveness of an interview tactic, known as the story, at eliciting confessions from suspects of wrongdoing was examined. Participants ($N = 60$) were asked to complete a series of problems, some alone and some with the help of a confederate. The confederate prompted half of the participants to cheat by asking for the answer to an individual problem, and did not do so for the other half; this allowed for the manipulation of participants' guilt/ innocence. All participants were then accused of cheating. For half of the participants, the experimenter used a story (adapted from the Royal Canadian Mounted Police's Phased Interview Model) to persuade the suspect to confess, while the other half were not exposed to the story. The results showed that guilty participants were more likely to confess than innocent participants, but participants who received the story were not more likely to confess than those who were not exposed to the story. Participants exposed to the story were more likely to believe that the consequences would be less severe if they confessed, compared to those who were not exposed to the story. The implications of these findings with relevance to the Confessions Rule and the admissibility of confession evidence in court are discussed.

Keywords: confessions, investigative interviews, persuasion, minimisation, social proof.

Acknowledgements

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Chapter 1: Introduction

Interrogating suspects and accused persons is often a central part of criminal investigations in Canada (Baldwin, 1993). The primary goal of most interrogations is to secure a confession. The caveat, however, is that confessions obtained from suspects must be reliable and voluntary in order to be admitted into evidence for court proceedings. Police officers therefore cannot secure a confession using coercive tactics that would overbear the suspects' free will, thus rendering the confession involuntary. Specifically, the Confessions Rule in Canada states that confessions should not be obtained using threats, promises, oppression, or police trickery that shocks the community (*R. v. Oickle*, 2000). If, however, there is evidence illustrating that a confession was obtained through these means, then the confession evidence and any evidence built on this confession (e.g., using the evidence to locate the weapon used), would not be admitted at court; even if there is other compelling evidence indicating that the suspect indeed committed the crime. The repercussions of using coercive or manipulative tactics can include not only wrongfully convicting an innocent person, but also potentially setting a guilty person free as a result of police malpractice. Therefore, it is imperative that the interrogation tactics used by police officers are subjected to scientific scrutiny, and that their effectiveness in obtaining true and voluntary confessions is examined. The goal of this thesis is to examine the effectiveness of one untested interview tactic, known as the story, in eliciting true and voluntary confessions.

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1.1 Role of Interrogations for Policing

As mentioned, interrogating suspects to obtain a confession is crucial in any criminal investigation (Baldwin, 1993). Confessions are seen as the most potent and damning piece of evidence that can be presented at trial because this evidence often leads to convictions (Kassin & Neumann, 1997; McConville & Baldwin, 1982). As a result, police officers go to great lengths to persuade suspects to confess or share self-incriminating information, typically by using highly persuasive interrogation tactics (Hartwig, Granhag, & Vrij, 2005).

Police officers use a variety of interrogation tactics to elicit confessions. As explained below, these tactics have been classified into two main categories: (1) maximisation and (2) minimisation tactics (Kassin & McNall, 1991; Horgan, Russano, Meissner, & Evans, 2012; Russano, Meissner, Narchet, & Kassin, 2005). The use of both tactics has been well-documented in police interrogations, and across several false confession cases (e.g., in content analyses of false confession cases; Appleby, Hasel, & Kassin, 2011).

1.2 Maximisation

Maximisation, or "scare tactics", refer to tactics that exaggerate the perceived consequences and seriousness of the offence. They are used to intimidate the suspect to confess by implying that they will be treated more harshly if they choose not to confess. This is achieved by exaggerating the severity and consequences of the offence, and the amount, quality, or reliability of the evidence that the police have against the suspect (Kassin & McNall, 1991). Interrogators utilising these tactics typically confront the suspect with their guilt, shut down any

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denials, repeatedly state that the suspect is lying, and, in certain situations, they present the

suspect with fabricated evidence or pretend to have incriminating evidence against the suspect

(i.e., they bluff; Horgan et al., 2012; Kassin & McNall, 1991; Perillo & Kassin, 2011). Inbau,

Reid, Buckley, and Jayne (2001) argued that maximisation tactics are most effective when used

on non-emotional offenders (i.e., those that commit calculated crimes and lack empathy;

Mullenix, 2007), as these tactics serve to remind the offender of the consequences of the offence

and of denying involvement. Maximisation tactics can be grouped into several categories,

including false evidence, bluffs, and threats (Kelly, Miller, Kleinman, & Redlich, 2013).

The use of false evidence during interrogations has been widely documented (Garrett,

2010). Historically, police officers have presented suspects with fabricated evidence, such as

fake polygraphs, DNA, or fingerprint reports, or staged eyewitness identifications (Kassin &

Kiechel, 1996; Redlich & Meissner, 2009). Police officers use the infamous ploy to convince

suspects that their guilt has already been established and that their denials are pointless.

However, there is evidence to suggest that the false evidence ploy can lead to false confessions,

both in the real-world (Kassin, 2014) and in controlled laboratory experiments (e.g.,

Horselenberg, Merchkelback, & Josephs, 2003; Kassin & Kiechel, 1996).

In a classic experiment, Kassin and Kiechel (1996) had pairs of participants complete a

typing task. One participant (actually a confederate) was instructed to read aloud a series of

letters, while the other participant typed those letters on the keyboard. Participants were warned

the computer would crash if they hit the ALT key, and consequently, their data would be lost.

However, the computer was actually programmed to crash automatically after 60 seconds. The experimenter then accused all suspects of pressing the ALT key and demanded that they sign a written confession admitting to this action (this task paradigm will henceforth be referred to as 'the computer crash paradigm'). Half of the participants were assigned to the high vulnerability condition where they had to type the letters at a fast pace, and were, therefore, unsure about whether they accidentally hit the ALT key. The other half of participants were assigned to the low vulnerability condition where they typed the letters at a slower pace and were, therefore, more aware of their actions. Additionally, half of the participants were presented with false evidence in the form of an admission by the confederate (i.e., the confederate stated that they saw the participant hit the ALT key) and half were not presented with such evidence. Kassin and Kiechel found that the confession rate nearly doubled when participants were presented with false evidence (94% vs 48% in the no-false evidence condition). Furthermore, vulnerability (i.e., the cognitively demanding typing) increased the false confession rate from 35% to 65% when false evidence was not presented, and from 80% to 100% when false evidence was presented. These findings have been consistently replicated (e.g., see Horselenberg et al., 2003; Horselenberg et al., 2006; Klaver, Lee, & Rose, 2008; Nash & Wade, 2009; Redlich & Goodman, 2003; Swanner, Beike, & Cole, 2009).

One notable replication was conducted by Nash and Wade (2009). In this experiment, participants were asked to complete a computerised gambling task where they had to answer a series of general knowledge questions and reward themselves for each correct answer.

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Participants were then accused of cheating on this task, and then they were either shown

doctored video evidence of them cheating, or told that such evidence exists. Granted the high

confession rate in both conditions, participants who saw the doctored video evidence were more

likely to confess than those who were only told that this evidence exists (100% compared to

73%). This pattern of results was also found when participants were accused of an act that was

thought to be less plausible (i.e., that they cheated on the task on three separate occasions).

Taken together, this research suggests that the use of false evidence in interrogations, regardless

of how this evidence is presented, can heighten the risk of false confessions.

Research has also shown that even a seemingly less deceptive variant of the false

evidence ploy, the bluff, can also produce false confessions (Perillo & Kassin, 2011). Police

officers who use the bluff technique typically imply the existence of evidence without directly

stating whether said evidence is incriminating (e.g., stating that video surveillance is available

and will be examined; Inbau et al., 2001). Inbau et al. (2001) argue that implying the existence of

evidence should threaten a guilty suspect to confess but would not have the same effect on

innocent suspects who are aware that the evidence would not implicate them. However, across

three experiments, Perillo and Kassin (2011), found evidence to the contrary. In the first

experiment, they used the computer crash paradigm, and either subjected the participant to a

false evidence ploy, where the confederate admitted that they saw the participant hit the ALT

key, or to the bluff, where the experimenter told the participant that the computer they were

working on was connected to a server that recorded all keystrokes and that the professor in

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charge of the study would examine this data once he arrived, or neither tactic. They found that the bluff and the false evidence ploy led to higher rates of false confession (87% and 79%, respectively) compared to the no-tactic control (27%). In the second experiment, they found that the bluff increased the rate of false confession from 47% in the no-tactic control to 74% in the bluff condition. Additionally, they found that 75% of participants in the bluff condition stated that they assumed that once the evidence was checked that their innocence would be confirmed, thus demonstrating why innocent suspects may confess when police officers bluff. In the third experiment, they replicated the studies using a cheating paradigm (described below) and found that the bluff led to an increased rate of both true (93% vs 87%) and false confessions (50% vs 0%) compared to the control condition. Additionally, the bluff lowered diagnosticity (i.e., the ratio of true to false confessions) from 87 to 1.86. Specifically, for every one false confession produced in the control condition there was an average of 87 true confessions produced, whereas for every one false confession produced in the bluff condition there was an average of 1.86 true confessions produced. Put differently, it was more difficult to differentiate between true and false confessions when the bluff was used

Collectively, the aforementioned research demonstrated that maximisation tactics heighten the risk of false confessions, and that they are less diagnostic than equivalent control conditions. Furthermore, maximisation tactics may place pressure on suspects to confess, as demonstrated by the higher true confession rate, and therefore they could potentially compromise the voluntariness, and in turn the admissibility of confession statements.

1.3 Minimisation

Minimisation tactics, or "soft sell" tactics, on the other hand, are those that are intended to gain the suspect's trust and diminish the perceived seriousness of the crime. In contrast to intimidating a suspect into confessing, minimisation tactics convey leniency in an attempt to persuade a suspect to confess. Police officers using these tactics typically downplay the seriousness of the crime, underestimate the severity of the consequences, and suggest to the suspect that their actions were justified (Kassin, Appleby, & Perillo, 2010a). Interrogators utilizing these tactics typically maintain a friendly and sympathetic demeanor, and usually provide suspects with face-saving (e.g., "you didn't mean to do it") and blame-based (e.g., "she provoked you") excuses that justify the suspect's actions (Horgan et al., 2012; Kassin, 2008). Inbau et al. (2001) argued that these tactics are most effective when used on emotional offenders (i.e., those that commit impulsive crimes and express remorse for their actions; Mullenix, 2007), as they serve to remind the offender of the benefits of confessing (e.g., feeling relief, clearing one's conscience).

In a seminal experiment, Russano and colleagues (2005) sought to examine the effect of minimisation and the offer of the deal on the rate of true and false confessions. They also aimed to quantify the diagnosticity of these interrogation tactics. As mentioned earlier, diagnosticity refers to the ratio of true to false confessions produced by an interrogation tactic and is indicative of the effectiveness of the tactic; more diagnostic tactics produce higher rates of true confessions while reducing the rate of false confessions. To accomplish these research goals, Russano and

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colleagues asked pairs of participants, one of whom was a confederate, to complete a series of problems, some individually and some as a team. In one condition, the confederate asked the participant for help with completing a problem that they were instructed to complete individually. If the participant complied, then they were considered "guilty" of cheating. In the other condition, the confederate did not make that request, and so that person was considered "innocent". All participants were later accused of cheating and were interrogated by the experimenter in one of four ways. The experimenter either used minimisation, offered the participant a deal in exchange for confessing, used both minimisation and a deal, or neither tactics. They found that the combination of both minimisation and the deal led to the highest rates of both true (87%) and false (43%) confessions, and the lowest diagnosticity (2.02). While minimisation alone led to the second highest rates (81% for true confessions, 18% for false confessions; diagnosticity: 4.5), followed by the deal alone (72% for true confessions, 14% for false confessions; diagnosticity: 5.14). When comparing the results from these three conditions with the no-tactic control (46% for true confessions, 6% false confessions, diagnosticity: 7.67), it becomes apparent that although both minimisation and the offer of the deal led to higher true confession rates, this increase in the true confession rate is problematically accompanied by an increase in the false confession rate.

Across two follow-up experiments, Horgan et al. (2012) demonstrated that minimisation and maximisation tactics that manipulate the perceived consequences of confessing (e.g., minimization: those that stressed the benefits of co-operating, downplayed consequences, and

offered face-saving excuses; maximization: those that exaggerate consequences and pin co-conspirators against one another) were much less diagnostic, compared to tactics that did not manipulate said consequences (e.g., minimization: maintaining a friendly demeanor, expressing sympathy; maximization: maintain unfriendly demeanour and strong belief in guilt). Specifically, Horgan and colleagues used the same cheating paradigm described above and varied whether a participant was guilty or innocent and whether or not they were interrogated using tactics that manipulated the perceived consequences of confessing. They found that tactics that did not manipulate the perceived consequences of confessing led to higher true confession rates (97% vs 81.8%) and lower false confession rates (21.2% vs 42.4%) and were more diagnostic (4.58 vs 1.93) compared to those that did manipulate the consequences of confessing. In other words, not all minimisation and maximisation tactics have the same effect on interrogation outcomes, but rather some are more problematic than others.

Taken together, data from the aforementioned experiments reveal that minimisation tactics can, at times, elicit false confessions. These results are not surprising given that minimisation tactics are perceived as implied promises of leniency (Kassin & McNall, 1991). As a result, innocent suspects may falsely confess in hopes of receiving a desired outcome (e.g., a shorter sentence) in the absence of any explicit promises.

1.4 Vulnerabilities

Research has also found that certain populations (e.g., youth, people with intellectual disabilities, highly suggestible and compliant individuals) are particularly vulnerable to false

confessions, especially when minimisation and maximisation tactics are used when interrogating these suspects (see Kassin & Gudjonsson, 2004 for a review). For example, youth have been found to be particularly vulnerable to false confessions because they are highly suggestible, tend to obey authority, and have immature decision-making abilities (Kassin et al., 2010b). In one study, Redlich and Goodman (2003) sought to examine the impact of age and false evidence on false confession rates using the computer crash paradigm. They recruited youth aged 12-13 and 15-16, and young adults aged 18-26 to complete a computer-based task. They found that younger participants were more likely to falsely confess to causing the computer crash, compared to older participants. Specifically, they found 78% of 12-13-year-old youth falsely confessed, compared to 72% of 15-16-year-old youth, and 58% of 18-26-year-old young adults. Youth were also more likely to confess when false evidence was presented (73% of 12-13-year old confessed, compared to 88% of 15-16-year old, and 50% 18-26-year-old). These results have also been replicated in other research studies (see Drizin & Colgan, 2004 for a review).

Relatedly, individuals with intellectual disabilities (i.e., an IQ lower than 70) are also especially vulnerable to false confessions (Gudjonsson, 2003). Research has shown that this population exhibits a heightened desire to please authority figures, a tendency to rely on authority figures for answers to problems, and a tendency to accept blame (Perske, 2004). In one study, Everington and Fulero (1999) compared the comprehension of Miranda Rights and suggestibility scores of prison inmates with and without intellectual disabilities. They found that individuals with intellectual disabilities scored lower on all measures of comprehension of

Miranda Rights compared to individuals without such disabilities; including the verbal test ($M =$ 3.72 vs. 7.06), the true-false test ($M = 7.83$ vs. 10.70), and the vocabulary test ($M = 3.77$ vs. 9.36). They also found that individuals with intellectual disabilities scored higher on the Gudjonsson Suggestibility Scale (GSS; $M = 15.88$) than those without such disabilities ($M =$ 3.60). Additionally, these individuals were more likely to accept the answers offered by the interrogator (on average they accepted nearly 50% interrogator's answers, while those without intellectual disabilties only accepted 20% of the interrogator's answers) and to change their answers in response to negative feedback (on average they changed their answers to 6.5 questions, compared to an average of 4.56 in the no intellectual disability group). These results demonstrate that individuals with intellectual disabilities do not fully comprehend their legal rights, are more likely to succumb to, and accept, an interrogator's accusations, and ultimately are more prone to falsely confessing.

Furthermore, certain neurotypical adults, who do not have intellectual disabilities, are also vulnerable to false confessions. Namely, adults who exhibit high trait suggestibility (i.e., those who have a high tendency to change their account of events when subjected to misleading information and pressure during an interrogation; Gudjonsson, 1992) are more likely to confess than adults who do not have this heightened need to comply with the orders of authority figures (Kassin et al., 2010b). Gudjonsson (1990) demostrated this by comparing the suggestibility and compliance scores of three groups of inmates: (1) false confessors who initially confessed but then retracted their statements, (2) forensic patients who confessed and did not retract their

statements, and (3) resisters who did not confess but were convicted based on other evidence, and found that false confessors had significantly higher suggestibility and compliance scores (12.2; 14.9, respectively), compared to forensic patients (8.6; 11.4) and resisters (4.1; 7.5). Additionally, he found that this difference remained significant even when IQ was controlled for, indicating that suggestibility played an important role in false confessions (see replications by Drake, 2010; Redlich & Goodman, 2003; Sigurdsson & Gudjonsson, 1996).

In addition to the aforementioned research findings, there have been several high-profile cases where vulnerable individuals have falsely confessed and were subsequently convicted of crimes that they had not committed (e.g., the Central Park Five, Romeo Pillion, Kyle Unger). In fact, recent data from the National Registry of Exonerations have revealed that of 2,145 proven false confessions, 38% of false confessors where youth under the age of 18, and 70% suffered from a mental or intellectual disability at the time of the offence (National Registry of Exonerations, 2017). One popular case that illustrates the dangers of interrogating vulnerable suspects is that of the Central Park Five. In this case, five teenage boys aged 14-16, were convicted of the assault and rape of Trisha Meili. All were subjected to lengthy and gruelling interrogations. It is reported that these interrogations lasted for 24 straight hours and that police officers threatened, assaulted, and lied to the suspects. In the end, four of the suspects falsely confessed, but all five were incarcerated. They served sentences between 7 to 13 years and were only exonerated when the real perpetrator came forward (Burns, Burns, & McMahon, 2012).

Taken together, extant research has demonstrated that minimisation and maximisation tactics increase the risk of false confessions, and that such risk is further heightened when these tactics are used on vulnerable individuals. These findings are quite troubling given that police officers routinely interview such vulnerable individuals, but are often unable recognise these vulnerabilities or to properly address them (e.g., by explaining suspects' legal rights more clearly or adjusting their interview protocol; Gudjonsson, 2010; Pearse, 1995). Therefore, it is imperative that the justice system puts protective measures in place to prevent police officers from using tactics that exploit potential vulnerabilities with any suspects and accused persons, and to uphold these measures by ensuring that confession evidence produced from these tactics is not heard in court.

1.5 The Confession Rule

In Canada, there are bounds to what a police officer can do in the interrogation room. Specifically, the acceptability of police interrogation tactics is governed by the common law Confession Rule (*R. v. Oickle*, 2000). The rule serves to protect the accused's right to a fair trial (as per section 7 and 11(d) of the Canadian Charter of Rights and Freedoms) by ensuring that any statements obtained using techniques that raise reasonable doubt to the voluntariness or reliability of the statement are excluded from evidence and not presented to triers of fact. According to the Supreme Court of Canada (SCC), a confession will be deemed inadmissible if it was obtained using threats, promises, oppression, or police trickery that shocks the community.

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Judges typically hold a *voir dire* (i.e., a preliminary examination) to determine the

voluntariness, and consequently the admissibility, of an accused's statements. According to the

Ibrahim Rule, and the subsequent *Oickle* Ruling, a statement is deemed involuntary if it was

gathered as a result of a "fear of prejudice" or "hope of advantage" from the police officer

(*Ibrahim v. the King*, 1914; *R. v. Oickle*, 2000). When considering the level of oppression, judges

evaluate whether the suspect was deprived of food, water, clothing, sleep, medical attention, or

access to a lawyer (*R. v. Oickle*, 2000; para, 60). Additionally, judges review recordings of

suspect interviews to examine the tone of the interview and search for any signs of aggression,

badgering, or fabrication of evidence (para, 61). With regards to promises and threats, judges

search for *quid pro quo* offers made by police officers that either promise the suspect a desired

outcome in exchange for a confession (e.g., psychiatric attention, lenient sentence; paras 49, 50),

or threaten that they will receive a form of punishment or torture if they do not confess (e.g., "if

you don't confess, you will spend the rest of your life in jail", para 56). Judges also evaluate

whether or not a statement was elicited using police trickery that would shock the community

and whether the suspect has an "operating mind" at the time of the confession (i.e., whether the

suspect seemed to understand the consequences of the statements they were making; para, 11).

If, however, there is evidence to the contrary then the suspect's statements can be deemed

involuntary, potentially unreliable, and, in turn, inadmissible.

Although well-intended, the Confession Rule does not fully protect against the admission

of false or involuntary confessions (see Fallon, Fahmy, and Snook, 2018 for a review; also see

Ives 2007 for a legal analysis of the ruling). The rule only protects against the use of *explicit*

threats and promises but allows officers to use subtle, but equally as problematic, *implicit* threats

and promises and other psychological tactics during interrogations (see aforementioned review

of minimisation and maximisation tactics). In fact, SCC Justice Iacobucci states, on behalf of

Justices L'Heureux-Dubé, McLachlin, Major, Bastarche, and Binnie, that any threats or promises

must be *explicitly* stated or confirmed by the police officer to render a subsequent statement

involuntary and inadmissible, and that "vigorous and skillful questioning, misstatements of fact

by the police, and appeals to the conscience of the accused do not necessarily make a resulting

statement inadmissible" (*R v. Oickle*, 2000; para, 15). That is, in the eyes of the law, a suspect's

perceived fears and hopes that stem from *implied* threats or promises made by the police do not

compromise the voluntariness or reliability of their statements; even though research has

repeatedly shown that these implied threats and promises play a role in the elicitation of false

confessions (Fallon et al., 2018). Additionally, the rule provides little guidance regarding which

tactics constitute police trickery that would "shock the community". Instead, the SCC leaves this

issue to the trial judges' discretion. Specifically, trial judges are expected to make decisions, on a

case-by-case basis, as to whether the inducements, threats, or police tricks are strong enough to

cast reasonable doubt to the voluntariness of a statement (para 47). It is troubling that the SCC

justices acknowledge that the confession rule "should recognize which interrogation techniques

commonly produce false confessions so as to avoid miscarriages of justice" (para, 25), and yet

disregard a wealth of scientific literature that demonstrates that subtle psychological tactics,

including minimisation and maximisation tactics, are just as problematic as explicit threats and promises.

In recent years, there has been a push from several advocacy groups (e.g., the Innocence Project, Innocence Canada, and the Canadian Society for Evidence-Based Policing) for the integration of scientific findings into police interviewing. Specifically, these advocacy groups have called for the abandonment of coercive interrogation tactics (as the ones reviewed earlier) and the implementation of more ethical interview protocols. In response to this public outrage, the Royal Canadian Mounted Police (RCMP) have recently developed a new interview model known as the *Phased Interview Model* (Carr, 2015).

1.6 The Phased Interview Model

The RCMP's *Phased Interview Model* (PIM) consists of six key phases: (1) review, preparation, and planning, (2) introduction and legal obligations, (3) dialogue, (4) version challenge, (5) accusation and persuasion, and (6) post interview. PIM encourages investigators to take a non-accusatorial approach in the first three key phases, and then to take an accusatorial approach in the later phases. The RCMP asserts that following the PIM would allow police officers to obtain accurate information while minimising the risk of obtaining false confessions (Carr, 2015). However, there is no published evidence to support this claim. In fact, PIM, and the techniques within it, have not yet faced scientific scrutiny. On the contrary, the majority of the techniques outlined in PIM (e.g., minimisation and appeals) have been shown to elicit false confessions (as demonstrated above). While the remainder of the tactics have not been

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empirically tested, and yet there is a push to adopt PIM across Canada and even worldwide

(RCMP Gazette, p. 30). As such, it is vital to examine the effectiveness of these untested

techniques and to determine the extent to which these techniques may elicit false confessions

and/or compromise the voluntariness of a suspect's statements before any recommendations are

made to the Canadian judiciary or to police agencies around the world.

1.7 Stories

One of the techniques that has not yet been empirically tested is the story. The RCMP's

PIM claims that stories (e.g., stories from previous investigations), whether truthful or

hypothetical, can be used to persuade suspects to share self-incriminating information with the

police (see Appendix A for an example of a story used in PIM). To date, no research has tested

this particular claim. However, there are theoretical reasons to believe that the use of stories

could elicit false confessions and that the implicit messages within these stories could

compromise the voluntariness of both true and false confessions. When reviewing the stories

outlined in PIM, two psychological elements could potentially influence participants' decision to

confess and possibly lead to false confessions: (1) social proof, and (2) minimisation (reviewed

above).

Social proof, also known as informational social influence, is a psychological

phenomenon where individuals mimic the behaviour of similar others when in an unfamiliar or

novel situation (Cialdini, 2007). Cialdini (1993; 2007) reasoned that this mimicry occurs because

individuals assume that others' behaviour reflects the correct or appropriate behaviour in that

particular situation. Social proof is a robust phenomenon and has been demonstrated in various contexts and with a diverse range of behaviours, including laughter (Fuller & Sheehy-Skeffington, 1974), healthy eating habits (Salmon et al., 2015), online shopping (Amblee & Bui, 2011), and donating to charity (Shearman & Yoo, 2007). It also occurs across cultures (Cialdini, Wosinska, Barrett, & Gornik-Durose, 1999). This phenomenon is even more pronounced when a participant is being compared to an individual who shares similar, and even trivial, characteristics (e.g., first name; Burger et al., 2004).

In studies of the social proof phenomenon, researchers typically elicit compliance by drawing a comparison between the participant and a similar other who is depicted as exhibiting the desired behaviour (e.g., they complied with a particular request). In other words, social proof can influence others because it demonstrates the appropriate or expected behaviour in a specific situation. Consistently, researchers have found that participants were more likely to express this desired behaviour when such a comparison was drawn compared to an equivalent control condition (e.g., see Amblee & Bui, 2011; Cialdini, 2007; Shearman & Yoo, 2007).

Given that the interviewing context is likely to be unfamiliar to many suspects, it is possible that they will look to similar others to determine how they should behave. To date, research has not yet explored the effect of social proof tactics in persuading suspects to confess. However, research has found that strategies that draw on social proof (by comparing a research participant to a similar other) were effective in eliciting more complete and accurate accounts from eyewitnesses (Luther, Keeping, Snook, & Fahmy, 2019)

In one study, Luther and colleagues (2019) compared the effectiveness of four social influence tactics (social proof, consistency, reciprocity, and authority) in producing accurate and complete accounts from eyewitnesses. Luther and colleagues asked participants to watch a video clip of a vandalism incident and later interviewed them about the witnessed event. Participants in the social proof condition were shown a two-page transcript of an interview and told that it was provided by a previous participant. They were also told that the previous participant had worked hard and thought carefully about the questions before answering; demonstrating the appropriate behaviour and level of detail that the participant should provide. Participants in the consistency condition were asked to sign an agreement stating that they would work hard, while those in the reciprocity condition were given a bottle of water and candy (in hope that they would reciprocate by providing a lengthy eyewitness account). In the authority condition, the interviewer told participants that he was trained in investigative interviewing, showed them a certificate proving such training, and demonstrated his knowledge by describing research on specific interview techniques. Overall, the social proof technique resulted in participants speaking for the longest period of time and providing the greatest amount of correct details, compared to the other social influence tactics. These findings suggest that, in a witness interview, telling a participant how a previous participant behaved (e.g., that they provided a lengthy account) in the interview can lead to mimicry of that behaviour (i.e., eliciting a desirable response). Similarly, in a suspect interview, if a police officer suggests how another suspect has behaved then that may also elicit such mimicry. For example, if a police officer shares a story from a similar investigation where

the perpetrator had committed a similar crime and had similar fears, but still confessed, then it is

likely that the suspect in the current investigation will mimic that behaviour and confess.

In summary, it appears that elements of stories, such as social proof as well as

minimization (of the seriousness and consequences of the crime), may critically lead to relatively

more false confessions.

1.8 The Current Research

The RCMP's PIM claims that stories can be used to persuade suspects to share self-

incriminating information with the police. However, this particular claim has not yet been

empirically tested. As such, the goals of this thesis were twofold: to determine (1) the

effectiveness of the story in eliciting confessions from suspects of wrongdoing, and (2) the

diagnosticity of this approach. To address these goals, two experiments were conducted. The

pilot study served to test the experimental procedure. The main experiment addressed the

procedural issues identified in the pilot study and recruited a larger sample of participants. In

both experiments, participants were recruited for an experiment on the relationship between

problem-solving and legal reasoning. They were asked to complete a series of problems, some

individually and some with the help of a confederate. The confederate prompted half of the

participants to cheat by asking them for help on an individual problem. All participants were then

accused of cheating and if they admit to cheating then they were asked to sign a written

confession admitting what they did. For half of the participants, the experimenter used a story

(adapted from PIM) to persuade the participant to confess, and for the other half, the

experimenter did not use a story. In line with previous research findings, it is hypothesised that guilty participants (i.e., those who cheated) will be more likely to confess than innocent participants (e.g., Horgan et al., 2012; Perillo & Kassin, 2011; Russano et al., 2005). Moreover, in line with the minimisation and social proof literature outlined above, it is hypothesised that participants who are presented with a story will be more likely to confess than those in the Story-Absent conditions. An interaction is also predicted whereby innocent participants will be more likely to confess when presented with a story than innocent participants who are not presented with a story. Put differently, participants who are exposed to the story will be more likely to falsely confess than those who are not exposed to it.

Chapter 2: Pilot Study

2.1 Methods

2.1.1 Participants

Participants ($N = 24$) were undergraduate students at Memorial University of Newfoundland. Of the 24 participants, 20 were women, and the mean age of participants was 19.33 years ($SD = 2.96$, Range 17-29). Of the 23 participants who reported their ethnicity, 22 were Caucasian, and one identified as Hispanic/Latino.

2.1.2 Confederates

Two female confederates played the role of the second participant in the study. One of the confederates was a Master's student and another a doctoral student; both were members of Memorial University of Newfoundland's Psychology and Law Lab. Both confederates were provided with training and time to rehearse their role (i.e., they ran practice testing sessions with the experimenter and a mock participant, were given feedback, and allowed to run as many practice sessions as it took to present the script perfectly), and they followed the same script during their interaction with the participant (see Appendix B).

2.1.3 Design

This study employed a 2 (Participant Behaviour: Guilty, Innocent) $\times$ 2 (Story: Present, Absent) between participant design. Participants were recruited to take part in an experiment that they believed to be on the relationship between problem-solving and legal reasoning and were

asked to complete a series of logic problems (See Appendix C). Participants were assigned

randomly to one of the four conditions. In the Guilty Participant Behaviour conditions, the

confederate (who is posing as a second participant) asked the participant for help on one of the

problems that they were instructed to work on individually. All participants in the pilot study

agreed to this request and were therefore considered guilty of cheating. In the innocent

Participant Behaviour conditions, the confederate did not make this request and so participants

were innocent. In the Story-Present conditions, the experimenter attempted to persuade the

participant to confess by telling a story, adapted from PIM (Carr, 2015), about a previous

cheating incident that had occurred where a student confessed to cheating and the consequences

were minimal. In the Story-Absent conditions, the experimenter asked the participant if they had

cheated but did not use any persuasive tactics (i.e., did not tell a story) to elicit a confession. The

experimenter was blind to the participants' guilt or innocence. The dependent measures were:

(1) participant's decision to confess (i.e., whether or not the participant signed the confession

statement), and (2) participant's perception of the interview process (i.e., their ratings of: stress,

pressure, severity of consequences, desire to confess, and the frequency of cheating).

2.1.4 Materials

The following materials were used in the study: (1) an informed consent form, (2) a logic

problem questionnaire (to setup the guilt/innocence conditions), (3) a perceptions of interview

questionnaire, and (4) a demographic questionnaire.

Logic Problem Questionnaire. The Logic Problem Questionnaire included four logic problems that were extracted from Russano (2004; see also Russano et al., 2005); two were labelled as individual problems, and two were labelled as team problems. The participant and confederate were instructed to complete the individual problems alone, but to work together to complete the team problems. In accordance with Russano's (2004) cheating paradigm, the triangle problem (i.e., the second individual problem) was selected as the target question (i.e., the question that the confederate requested help with in the guilty condition; see Appendix C). According to Russano, this question was challenging and elicited many incorrect answers during pilot testing.

Perceptions of Interview Questionnaire. The Perceptions of Interview Questionnaire included a series of questions that assessed participants' perception of the interview process and the story (see Appendix D). In the Story-Absent conditions, participants were asked to rate on a five-point scale *(1 = Strongly Disagree, 5 = Strongly Agree)*, how much they agree with the following three statements: (1) Being accused of cheating was stressful, (2) I believed the consequences will be less severe if I confessed to cheating, and (3) I believed that sharing answers is common. Similarly, in the Story-Present conditions, participants were also asked to rate their level of agreement with the above statements and with the following statement: "I found the character in the story (i.e., Sam) to be relatable"; this question served as a check to determine whether participants found the character in the story sufficiently similar to them and whether the social proof tactic was administered appropriately.

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Demographic Questionnaire. The demographic questionnaire requested information

from participants about their age, gender, and ethnicity.

2.1.5 Procedure

The Testing Room. The testing sessions took place in a conference room in the

Psychology and Law Lab at Memorial University of Newfoundland (room dimensions: 488 ×

523 cm). The room did not have any windows, was dimly lit, and contained a large table with

three chairs – two of which were placed side by side to allow the participant and confederate to

work together on the logic problems, and one was placed directly across from the participant's

chair for the interviewer to use during the interrogation (see Appendix E for a photograph of the

interrogation room).

Logic Problem-Solving Phase. Participants were recruited through Memorial

University's Psychology Research Experience Pool (PREP) system where they read about the

study and signed up for a time slot. Upon arrival at the Psychology and Law Lab, participants

were assigned randomly to one of two conditions (based on a computer generated table of

random numbers), led to the testing room, and were told that they will be given an informed

consent form and further instructions about the experiment once the other participant (actually

the confederate) arrived.[1] The experimenter waited in the testing room with the participant for

about one minute and then the confederate knocked on the door and stated that she was here to

participate in an experiment. The experimenter then asked the confederate to have a seat, asked

both the confederate and participant for their names, and then handed them the consent forms to

read and sign. Then, the experimenter handed each of the participant and confederate the Logic

Problem Questionnaire. The experimenter explained that the questionnaire included both

individual problems that the participants should solve alone, and team problems that they should

work on together. They were also informed they had eight minutes to complete this task.

The experimenter left the testing room and returned once the allotted time had passed.

The experimenter then collected the two questionnaires and explained that she needed to ask

each of the participants a set of legal reasoning questions. She then proceeded to ask the

participant if they would like to be the first to answer the questions, and then directed the

confederate out of the room and asked her to wait for her turn. Once the confederate had left the

room, the experimenter told the participant that she had to get her question sheet and audio

recorder and will be right back. This statement was merely an excuse so that the experimenter

could leave the testing room and later claim that she reviewed the participant and confederate's

answers. However, the experimenter did not actually look at the question sheets to remain blind

to the participants' guilt/innocence.

The Interview Phase. After a one-minute delay, the experimenter returned and stated

that she needed to talk to the participant about an apparent issue with the Logic Problem

Questionnaire (see Appendix F for a copy of the script). She then proceeded to state that she

looked over the participant and confederate's answers and noticed that they both got the same

incorrect answer on one of the individual questions which led her to believe that they may have

cheated by helping each other on that question. She then explained that by doing so the

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participant had compromised the integrity of the study and that they would have to return and re-do the study in order to receive credit for participating. The script then differed between the Story-Absent and Story-Present conditions.

Story-Absent Condition. After the initial accusation in the Story-Absent condition, the experimenter told the participant that she needed to know exactly what happened and asked if they had anything to say, giving the participant an opportunity to confess. If the participant confirmed the accusation then they were asked to write and sign a confession stating that they admit to sharing answers. The experimenter proceeded to ask the participant to recount everything that happened in the testing room and state their reasons for why they chose to confess/not confess. However, if the participant denied the accusation, then the experimenter did not ask for a written confession and proceeded to ask the two open-ended questions. All participants were then asked to fill out the Perceptions of Interview Questionnaire. They were then debriefed thoroughly, asked to provide some demographic information about themselves, and to sign a confidentiality agreement stating that they will not share any information about the study with other students at Memorial University of Newfoundland (i.e., to uphold the integrity of the study).

Story-Present Condition. After the initial accusation in the Story-Present condition, the experimenter proceeded to tell the participant, who initially denied cheating, a story about a previous cheating incident that had occurred in a different experiment. The experimenter stated that the participant confessed and was merely asked to return to re-do the study and received

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credit for participating. The story incorporated the main elements of the story outlined in PIM.

Specifically, the story incorporated social proof in the form of giving an example of a person

who was similar to the participant and was in an identical situation and confessed. Additionally,

the story included a minimisation element where participants were led to believe that the other

person merely had to re-do the study but was not otherwise penalized for cheating. After

administering the story, the experimenter gave the participant an opportunity to confess, and then

asked them to recount everything that happened and to state their reasons for why they chose to

confess/not confess. Similar to the Story-Absent condition, participants completed the

Perceptions of Interview Questionnaire, were debriefed thoroughly, and provided some

demographic information about themselves and signed a confidentiality agreement.

All participants in the Story-Present condition were given a chance to confess before and

after the administration of the story. Only participants who initially denied the accusation

received the story. Those who confessed did not receive the story and were reassigned to the

Story-Absent condition (i.e., the equivalent control condition). This reassignment served

maximise statistical power by preserving the data from all participants – even those who

confessed before receiving the intended manipulation. Given that the interview scripts only

differed on whether or not a story was administered, it was possible to reassign those

participants. As a result of this reassignment, the final distribution was uneven across the four

conditions (one participant was in the Guilty/Story-Present condition, 12 were in the

Guilty/Story-Absent, five in the Innocent/Story-Present, and six in the Innocent/Story-Absent).

2.2 Results and Discussion

The purpose of the current study was to pilot test the experimental procedure, outlined above, before a larger sample was recruited. It was revealed that there were several issues with the experimental procedure, specifically with the cheating paradigm and the position of the guilt question, which hindered the ability to answer the research question. Namely, the high confession rate (91%) indicated that the study may have lacked experimental realism. Anecdotally, several participants cited that they were not motivated to lie and "had nothing to lose" when asked why they chose to confess to cheating. Additionally, some participants stated that they assumed that the built-in camera in the room (although it was turned off) and/or the confederate's testimony would prove their guilt or innocence, giving them little reason to lie. In reality, suspects of crimes are arguably highly motivated to lie, especially in the absence of incriminating evidence. Furthermore, of particular concern was that of the seven guilty participants that were assigned to the Story-Present condition, six confessed before the story was administered and thus were reassigned to the Guilty/Story-Absent condition. As a result, the experimenter was not able to administer the intended manipulation to the majority of participants assigned to that condition. Therefore, it was not possible to evaluate the effect of the story on true and false confession rates.

To address the above issues, several changes were made to the experimental procedure when designing the Main Experiment. First, to increase experimental realism and the generalizability of the results to real-world interrogations, changes were made to the interview

script to increase the perceived severity of the consequences attached to the cheating incident. Following the initial accusation, the experimenter stated that this cheating incident can be considered an instance of plagiarism and data falsification for which the participant can be reprimanded. Second, changes were made to ensure that participants believed that the outcome of the situation rested on their confession, rather than on any existing evidence against them. Namely, rather than ask the confederate to wait outside until it was her turn to answer the legal reasoning questions, the experimenter stated that only one participant was needed for the second phase of the experiment and that based on a random draw the participant was selected. The experimenter then asked the confederate to leave and directed them out of the room. This instruction served to reiterate that there was no eyewitness to the situation. Furthermore, a different testing room that had no cameras or recording equipment was used. Third, to ensure that the experimenter was able to administer the manipulation (i.e., the story), the initial question of guilt was eliminated, and participants were asked that question only after the story was administered in the two Story-Present conditions.

In addition to the above changes, a Post-Debriefing Questionnaire was added to the research materials. This questionnaire requested that participants rate the amount of pressure they felt to confess, to what extent they wanted to confess, and how much stress they were experiencing after being debriefed (as per Institutional Review Board (IRB) policy). Additionally, all participants were asked whether they knew the true purpose of the study, and if

so to state it. This was done to ensure that data from participants who were suspicious of the

study or those who did not believe the cover story could be removed.

Chapter 3: Main Experiment

3.1 Methods

3.1.1 Participants

Participants ($N = 60$) were undergraduate students at Lancaster University. The data from two participants were removed because they did not comply with the confederate's request to share answers, and the data from two participants were removed because they requested an answer from the confederate (i.e., two participants in the innocent conditions decided to cheat).[2] Of the remaining 56 participants, 51 were women, and the mean age of participants was 18.82 years ($SD = 0.97$, Range 18-24). Of the 55 participants who reported their ethnicity, 48 were Caucasian, four were Asian, one was Black, one was Hispanic, and one was Middle Eastern. Due to random assignment the distribution of participants was not equal; 14 participants were assigned to the Guilty/Story-Present condition, 12 to the Guilty/Story-Absent, 14 to the Innocent/Story-Present, and 15 to the Innocent/Story-Absent. There were no statistically significant differences in any of the demographic information across the four conditions (ps > .05).

3.1.2 Confederates

Four confederates (three female, one male) played the role of the second participant in the study. The confederates were undergraduate students at Lancaster University who were a part of the Psychology Employability Programme (PEP). All confederates were provided with training and time to rehearse their role (i.e., they ran practice testing sessions with the

experimenter and a mock participant, were given feedback, and allowed to run as many practice

sessions as it took to present the script perfectly). Additionally, they all followed the same script

during their interaction with the participant (the same script as the one used in the pilot study).

There were no significant differences between the primary dependent variable (i.e., whether the

participant confessed) across the four confederates, $\chi^2(3, N = 56) = 0.64$, $p = .89$.

3.1.4 Design

This experiment employed the same 2 (Participant Behaviour: Guilty, Innocent) × 2

(Story: Present, Absent) between participant design as the pilot study. The Participant Behaviour

and Story manipulations are identical to those described earlier.

3.1.5 Materials

The following materials were used in the experiment: (1) an informed consent form, (2) a

logic problem questionnaire (same as the pilot study), (3) a perceptions of interview

questionnaire, (4) a demographic questionnaire (same as the pilot study), and (5) a post-

debriefing questionnaire.

Perceptions of Interview Questionnaire. The Perceptions of Interview Questionnaire

included a series of questions that assessed participants' perception of the interview process and

the story, as described above. The questionnaire also asked participants whether they knew the

true purpose of the experiment, and if so to state that purpose. None of the participants were able

to accurately state the true purpose of the experiment, thus indicating that they believed the cover

story.

Post-Debriefing Questionnaire. The Post-Debriefing Questionnaire requested that participants provide stress and pressure ratings (see Appendix G). Specifically, participants were asked to rate, on a five-point scale (*1 = No Pressure at All, 5 = The Most Pressure I can Imagine)*, their level of stress after they learned about the true purpose of the experiment. Given the confrontational nature of the experiment and the deception involved, it was important to assess participants' stress after they have been debriefed to ensure that participants did not leave the testing area distressed (as per IRB policy). Additionally, participants were asked to rate, on a five-point scale (*1 = No Pressure at All, 5 = The Most Pressure I can Imagine*), how pressured they felt to confess. Participants were also asked to rate their level of agreement with the following statement: "I wanted to confess" (*1 = Strongly Disagree, 5 = Strongly Agree*). Given that Confession Rule in Canada states that confessions ought to be voluntary in order to be admissible in court (*R v. Oickle, 2000*), it was important to examine if the administration of the story affected participants' perceived pressure to confess and if it compelled them to confess against their will.

3.1.6 Procedure

The Testing Room. The layout of the testing room used in this experiment also resembled a police interrogation room. Specifically, the room was relatively small (room dimensions: 236×176 cm) and bare; it contained only a table and two chairs (Appendix E for a photograph of the testing room). Participants were always seated in the corner seat and the interviewer was seated on the adjacent side.

Logic Problem-Solving Phase. Participants were recruited through Lancaster University's Research Participation System (SONA) where they read about the experiment and signed up for a time slot. As in the Pilot Study, participants were assigned randomly, based on a computer generated table of random numbers, to one of four conditions, led to the testing room, and were told that they would be given an informed consent form and further instructions about the experiment once the other participant (actually a confederate) arrived. The experimenter waited in the testing room with the participant for approximately one minute, and the confederate then knocked on the door and stated that they were here to participate in an experiment. The experimenter then asked the confederate to have a seat, asked both the confederate and participant for their names, and then handed them the consent forms to read and sign. Then, the experimenter handed each of the participant and confederate the Logic Problem Questionnaire. The experimenter explained that the questionnaire included both individual problems that the participants should solve alone and team problems that they should work on together, and that they will be given eight minutes to complete this task.

The experimenter left the testing room and returned once the allotted time had passed. The experimenter then collected the two questionnaires and explained that she now needs to ask one of the participants a set of legal reasoning questions and that, based a random draw, the participant was selected to complete the questions. She then proceeded to guide the confederate out of the testing room and thanked them for participating. The aim of this instruction was to signify that the confederate had completed the experiment and left the testing area, thus ensuring

that the participant would not be concerned about the confederate telling the experimenter if they

had cheated (i.e., that there is eyewitness evidence that could prove their guilt or innocence).

Once the confederate had left the room, the experimenter told the participant that she had to

retreive her question sheet and audio recorder and will be right back.

The Interview Phase. Following a one-minute delay, the experimenter returned and

stated that she needed to talk to the participant about an apparent issue with the Logic Problem

Questionnaire. She then proceeded to state that she looked over the participant's and

confederate's answers and noticed that both the participant and confederate had the same

incorrect answer on one of the individual questions, which led her to believe that they may have

cheated on that question. She then explained that cheating could be considered an instance of

plagiarism and data falsification and that the participant could be reprimanded. The script then

differed between the Story-Absent and Story-Present conditions (See Appendix F for a copy of

the script used in both conditions).

Story-Absent Conditions. Similar to the pilot study, the experimenter accused the

participant of cheating and asked for an explanation about what happened, giving the participant

an opportunity to confess. If the participant confirmed the accusation, she asked them to sign a

confession stating that they admit to sharing answers. The experimenter proceeded to ask the

participant to recount everything that happened in the testing room and state their reasons for

why they chose to confess/not confess. If the participant denied the accusation, then the

experimenter did not ask for a written confession and proceeded to ask the same two open-ended

questions. All participants were asked to complete the Perceptions of Interview Questionnaire. The participants were then thoroughly debriefed, asked to provide some demographic information about themselves, and then to fill out the Post-Debriefing Questionnaire.

   Story-Present Conditions. After the initial accusation in the Story-Present conditions, the experimenter proceeded to tell the participant a story from a previous cheating incident (the same story was used in both the pilot study and this experiment). After administering the story, the experimenter gave the participant an opportunity to confess and then asked them to recount everything that happened and to state their reasons for why they chose to confess/not confess. Similar to the Story-Absent condition, participants were asked to fill out the Perceptions of Interview Questionnaire, were debriefed thoroughly, and asked to provide some demographic information about themselves and to fill out the Post-Debriefing Questionnaire.

   Debriefing Phase. Given the deceptive nature of the experiment, it was vital that all participants were debriefed at length and informed about the true purpose of the experiment. Specifically, participants were first told that the experiment was not related to logic problem-solving or legal reasoning, but rather that the experiment aimed to examine the effect of stories on the elicitation of true and false confessions. Participants were also reassured that they did not do anything wrong, that they are not going to be reported for plagiarism or data falsification, and that they are not obligated to return to re-do the experiment. Furthermore, the experimenter explained that the use of deception was necessary to maintain the integrity of the experiment and to ensure that participants reacted naturally. The experimenter then asked all participants if they

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were upset or stressed about anything that had occurred and if they have any lingering concerns. Participants were then provided with a debriefing sheet that included more information about the experiment, the experimenter's contact information, the contact information of the university's counselling centre, as well as a special code that participants could cite if they wished to withdraw their data after leaving the testing room (see Appendix H for a copy of the debriefing sheet). Participants were then asked to fill out the Post-Debriefing Questionnaire and were reminded that they should not share details about the experiment with other students at Lancaster University. The researcher made every effort to ensure that all participants were treated fairly, that all their questions and concerns were addressed, and that any stress or discomfort they experienced, as a result of their participation in the experiment, was alleviated before they left the testing room. The majority of participants (64.29%) reported feeling 'no stress at all' after being debriefed, while the remaining participants reported feeling either 'little stress' (25.00%) or 'some stress' (10.71%).

3.2 Results

The frequency of confessions as a function of experimental condition are shown in Table 1. As can be seen, of the 56 participants who were included in the analysis, 12 confessed (21.43%). Six (42.86%) of these confessions were obtained from participants in the Guilty/Story-Present condition, five (38.46%) were obtained from participants in the Guilty/Story-Absent condition, one (7.14%) was obtained from a participant in the Innocent/Story-Present condition (i.e., false confession), and no confessions were obtained from participants in the Innocent/Story-Absent condition. The true confession rate was 40.74% (11 out of 27 guilty individuals) and the false confession rate was 3.44% (one out of 29 innocent individuals). Given that no false confessions were obtained in the Story-Absent condition, it was not mathematically possible to calculate the diagnosticity of the story technique (i.e., it was not possible to divide the true confession rate in the Story-Absent condtion (38.46%) by zero).

A 2 (Participant Behaviour: Guilty, Innocent) × 2 (Story: Absent, Present) Binomial Logistic Regression was performed to determine if either of the independent variables predicted whether a participant would confess to cheating. The logistic regression model was significant, $\chi^2 (2, N = 56) = 13.32, p = .001$. The model explained 32.76% (Nagelkerke R^2) of the variance in participant's decision to confess, and correctly predicted whether a participant would confess in 78.57% of the cases. Specifically, there was a significant main effect of Participant Behaviour, $\chi^2(1, N = 56) = 7.40, p = .007$, with guilty individuals more likely to confess than innocent individuals. However, the effect of the Story was non-significant, $\chi^2(1) = 0.32, p = .57$.

A 2 (Participant Behaviour: Guilty, Innocent) × 2 (Story: Absent, Present) Multivariate Analysis of Variance (MANOVA) was conducted with items that comprised the Perception of Interview (i.e., participants' ratings of stress, the perceived severity of consequences of cheating, and the perceived frequency of cheating) and Post-Debriefing questionnaires (i.e., ratings of pressure, desire to confess, stress post-debrief) as dependent variables. The means and standard deviations for the questionnaire data are shown in Tables 2 and 3, respectively. There was a significant main effect of Story on participants' ratings of their perception of the severity of the consequences of cheating, $F (1, 52) = 7.21$, $p = .025$, $d = 0.62$, with participants in the Story-Present condition ($M = 3.90$, $SD = 1.18$) agreeing more strongly with the statement "I believed the consequences would be less severe if I confessed" (a form of minimisation) compared to those in the Story-Absent condition ($M = 3.19$, $SD = 1.11$). Additionally, there was a significant main effect of Participant Behaviour on participants' ratings of their desire to confess, $F (1, 52) = 22.61$, $p < .001$ $d = 1.04$, with guilty participants ($M = 3.52$, $SD = 1.25$) agreeing more strongly with the statement "I wanted to confess" compared to innocent participants ($M = 2.24$, $SD = 1.22$). No other effects were significant, Fs < 3.31.

To test the RCMP's claim that stories can encourage suspects to speak more freely, the length of participants' responses (in seconds) to the free recall question (i.e., "tell me everything that happened"; Range $= 19 – 266$ seconds) was measured. The means and standard deviations for the response length across the four conditions are reported in Table 4. The data show that the response length of those in the Story-Present conditions, $M = 68.41$, 95% CI [56.91, 79.91] did

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not differ significantly from those produced in the Story-Absent conditions, $M = 79.81$, 95% CI

[56.41, 103.21], $t(54) = 0.88$, $p = 0.39$, $d = 0.23$.

3.3 Discussion

The purpose of the current study was to examine the effectiveness of the story, a technique outlined in the RCMP's PIM, in eliciting confessions. To do so, Russano et al.'s (2005) cheating paradigm was used to prompt some university students to cheat on a task. All participants were accused of cheating and interviewed about the incident, but only some were exposed to the story technique during an interview. In line with the first hypothesis, guilty individuals (i.e., those who cheated on the task) were more likely to confess to cheating than those who were innocent (i.e., those who did not cheat). However, contrary to the second hypothesis, exposing participants to a story had a mild, albeit not-statistically significant, impact on the participant's decision to confess. Specifically, administering the story led to a 4.4% increase in the true confession rate and a 7.14% increase in false confession rate. Additionally, the story did not encourage participants to speak more freely or for a longer period of time. On another note, participants who were administered the story believed that the consequences would be less severe compared to those who were not administered the story, and guilty participants expressed a greater desire to confess compared to innocent participants. Although preliminary in nature, these results provide some insight about the effectiveness of this interviewing technique and some directions for future research in this area.

Previous research has found that guilty individuals are more likely to confess than their innocent counterparts (Horgan et al., 2012; Perillo & Kassin, 2011; Russano et al., 2005). For instance, Russano and colleagues found that guilty participants were three and a half times more

likely to confess than innocent participants. Furthermore, research has also found that guilty suspects react differently to accusations of guilt compared to innocent suspects and that that may account for the difference in confession rates. For instance, guilty suspects have been found to exhibit heightened physiologic stress reactions when accused of wrongdoing (e.g., higher blood pressure, heart rate; Guyll, Madon, Yang, Scherr, & Greathouse, 2013). In fact, some research has shown that offenders cited internal pressure (e.g., feelings of guilt, stress, and a desire to "get it off [their] chest") and proof (i.e., belief that there is evidence against them) as the main reasons why they confessed to crimes they had committed (Gudjonsson & Petursson, 1991; see also Snook, Brooks, & Bull, 2015 on how strength of evidence and interview style influenced offenders' decision to confess). Therefore, in the current study, the finding that guilty participants were more likely to confess than innocent participants and that they expressed a greater desire to do so is unsurprising. It is possible that guilty participants expressed a greater desire to confess to relieve any feelings of guilt or stress that they may have been experiencing. Anecdotally, participants who confessed commonly cited moral reasons such as "wanting to do the right thing", " wanting to be honest", and "feeling bad about ruining the study" when asked why they chose to come forward. In contrast, participants who did not confess typically maintained their innocence, stated that they had nothing to confess, or cited that they did not want to get in trouble when asked why they chose not to come forward.

As mentioned earlier, there are theoretical reasons to believe that the story technique would be effective at eliciting confessions because it draws on the concepts of social proof and

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minimisation. For example, research on social proof has demonstrated that simply drawing a comparison between a participant and a similar other (e.g., by mentioning that a similar other behaved in some way or complied to a request) increases the liklihood of the participant exhibiting the desired behaviour both in real-world (e.g., Amblee & Bui, 2010; Salmon et al., 2015; Shearman & Yoo, 2007) and investigative contexts (Luther et al., 2019). Additionally, research on minimisation has demonstrated that this tactic can lead to an increase in the rate of true and false confessions, compared to a no-tactic control (Russano et al., 2005). Therefore, the finding that the story had only a mild and non-significant effect on participants' decision to confess was somewhat suprising. There are two possible explanations for this finding: (1) the current study lacked sufficient power to detect the effect of the story, or (2) the story technique is in fact not as persuasive as the PIM suggests.

In terms of the first possible explanation for why there was no effect of the story, it could be attributed to the small sample size used in this experiment. Unfortunately, despite the efforts dedicated to participant recruitment, the experiment did not garner as much interest from university students as was hoped. A *post hoc* power analysis was conducted and revealed that with a sample size of 56 participants the probability of detecing an effect in a Binary Logistic Regession is 33%, which is below the accepted range (Cohen, 1992). It is, therefore, possible that the results of the current study would differ if a larger sample was recruited and greater statistical power was achieved.

Alternatively, it is possible that the story technique is not effective at persuading suspects to confess. Although both social proof and minimisation have been found to be effective at influencing participants' behaviour, it is possible that the combination of both tactics and/or embedding them in a narrative format does not have the same effect on participants' behaviour. It is also possible that participants did not find the story to be believable or relatable. In other words, they may have thought that it sounded "too good to be true" that the previous participant was allowed to re-do the task and was not penalised for cheating, and so they may have believed that the experimenter was simply lying to get them to confess. As a result, participants may have opted to maintain their innocence rather than risk getting in trouble if they came forward. It is also possible that participants did not relate to or identify with the particular character in the story, and so they did not feel the need to mimic the character's behaviour (i.e., they did not feel the need to confess). In fact, when participants were asked whether they found the character in the story relatable nearly half of the participants disagreed or expressed a neutral opinion. Perhaps the effect of the story would have been more pronounced if the participant could relate more with the character in the story (e.g., if the participant was told that they shared a particular characteristic rather than the generic "she reminded me of you" comment; see Burger et al., 2004), or if the participant was provided with other social norm information (e.g., the character in the story was "sitting in the same chair as you" or was in the "same room"; see Goldstein, Cialdini, & Griskevicius, 2008).

It is important to note that, although there was no significant difference in true and false confession rates between the Story-Absent and Story-Present conditions, the one false confession that was produced was elicited from a participant in the Story-Present condition. As mentioned, the story increased the rate of false confessions by 7.14%; a finding that may have important and practical implications in real-world settings. Put differently, one out of 14 participants in the Innocent/Story-Present condition falsely confessed. If every one in 14 suspects that are interviewed in Canada using the story technique falsely confesses then this would have grave consquences to the administration of justice. That is, although the effect of the story may not have been statsitically significant, it may be practically significant when applied to a large population (i.e., the population of suspects interviewed across Canada; see Kirk, 1996 on the importance of considering practical significance). Furthermore, questionnaire data revealed that the story led participants to believe that the consquences of cheating would be less severe if they confessed. The story seemed to have implied that participants would be treated more leniently if they confessed; a promise that puts the voluntariness, and in turn admissability, of both true and false confessions in question (as per the Confession Rule in Canada; *R. v. Oickle*; 2000). As a result, although it is premature to conclude that the story may elicit false confessions, the data does provide a reason for preliminary concern. Therefore, further research is needed to uncover any unintended potential consquences of the story.

The results of this experiment have to be interpreted in light of several limitations. The first limitation pertains to the inability to generalize the results to suspects of actual crimes. The

use of a homogenous sample (i.e., predominately Caucasian female undergraduate students) raises the concern that the results would not generalize to typical suspects that are subjected to interrogations (i.e., predominately minority males; Leo, 1996). Relatedly, the use of a cheating paradigm in a university setting, interviewing participants for a short period of time, (approximately 10 minutes), and using only a single interview tactic (i.e., the story) limits the ability to generalize the results to serious criminal offences (e.g., murder) committed in real-world settings, and to lengthy and extensive interviews where a combination of persuasive techniques are used. The second limitation pertains to the lack of power to detect an effect of the story (discussed above). The third limitation pertains to the position of the guilt question. Particularly, participants in this experiment were asked whether they had cheated only after the story was administered, and as a result the effect of the story on persuading suspects who initially denied the accusation remains unknown.

Given the preliminary nature and the limitations on the generalizability of these findings, there are at least four areas that need to be addressed in future research on this topic. First, to strengthen external validity, future research ought to replicate this experiment with a larger and more diverse sample. Second, future research could attempt to isolate the effect of minimisation and social proof on confession rates, when each is embedded in a narrative format. Third, future research could also examine the effect of the story when used in combination with other tactics (e.g., offer of a deal), and when used in lengthier interviews or in different task paradigms.

Fourth, future research could explore whether or not the story is effective at persuading suspects who initially denied the accusation to confess.

In *R v. Oickle* (2000), the SCC formally restated the common law Confessions Rule which governs the admissibility of confession evidence in court. The rule states that confessions will not be admitted into evidence if they were elicited using interview techniques that cast reasonable doubt to the voluntariness and reliability of the confession. Given that confession evidence is the most potent piece of evidence that can be presented at trial, it is important that any techniques used to elicit such confessions are subjected to scientific scrutiny and that any techniques that put the voluntariness or reliability of the confession at risk are avoided at all costs in police interviews. The current experiment revealed that the story was not effective at eliciting confessions from suspects of a cheating incident. However, the story did influence participants' perception of the consequences attached to cheating; indicating that the story operated to subtly promise the participants that they would be treated leniently if they confessed. If stories in real-world investigations imply a similar promise, then it is possible that a confession obtained using this technique can be deemed involuntary and inadmissible. Although this is a single experiment and the generalisation of its findings is limited, it warrants further investigation into the effectiveness of the story, and its impact on suspects' perceptions of the severity of the crime and the consequences attached to it. The administration of justice, in general and as it relates to the admittance of confession evidence, can only be improved when police agencies, judges, and

legal scholars acknowledge that scientific research can, and should, help inform and govern rules surrounding suspect interviewing and beyond.

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Footnotes

[1]Participants were initially randomly assigned to one of the four experimental conditions. However, six participants from the Guilty/Story-Present condition were reassigned to Guilty/Story-Absent condition because they confessed before the story was administered.

[2]The data from these participants were removed from the analysis to ensure consistency in the interaction between the confederate and participants, and in the question where cheating occurred, throughout all testing sessions. For transparency, the analysis with the entire sample ($N = 60$) is included below.

Of the 60 participants that took part in the study, 14 confessed (23.33%). Seven (46.67%) of these confessions were obtained from participants in the Guilty/Story-Present Condition, six (42.86%) were obtained from participants in the Guilty/Story-Absent condition, one (5.88%) was obtained from a participant in the Innocent/Story-Present condition (i.e., false confession), and no confessions were obtained from participants in the Innocent/Story-Absent condition. The true confession rate was 44.83% (13 out of 29 guilty individuals) and the false confession rate was 3.22% (one out of 31 innocent individuals).

A 2 (Participant Behaviour: Guilty, Innocent) $\times$ 2 (Story: Present, Absent) Binomial Logistic Regression was performed to determine if either of the independent variables predicted whether a participant would confess to cheating. The logistic regression model was significant, $\chi^2 (2) = 16.75$, p < .0005. The model explained 36.76% (Nagelkerke R^2) of the variance in participant's decision to confess, and correctly predicted whether a participant would confess in

76.67% of the cases. More specifically, there was a significant main effect of confederate behaviour, $\chi^2(1) = 8.74$, $p = .003$, with guilty individuals more likely to confess than innocent individuals. However, the effect of the story was non-significant, $\chi^2(1) = 0.28$, $p = .595$.

Table 1

The Mean Confession Rates Obtained as a Function of Condition

	Story	
Participant Behaviour	**Present**	**Absent**
Guilty	42.86%	38.46%
Innocent	7.14%	0%

Table 2

Mean (and Standard Deviation) Ratings on the Perceptions of Interview Questionnaire as a Function of Condition

	Experimental Condition			
	Story-Present		**Story-Absent**	
Item	**Guilty**	**Innocent**	**Guilty**	**Innocent**
Being accused of sharing answers was stressful.	3.71 (1.14)	3.93 (1.22)	3.77 (0.60)	4.14 (0.77)
I believed the consequences would be less severe if I confessed.	4.07 (1.07)	3.73 (1.28)	3.15 (1.34)	3.21 (0.89)
I believed that sharing answers is common.	3.64 (1.08)	3.47 (1.06)	3.54 (1.20)	2.79 (1.18)
I found the character in the story relatable.	3.57 (1.09)	3.14 (1.09)	N/A	N/A

Note. Each item on the Perceptions of Interview Questionnaire ranged from 1 (Strongly Disagree) to 5 (Strongly Agree).

Table 3

Mean (and Standard Deviation) Ratings for Items on the Post-Debriefing Questionnaire as a Function of Condition

	Experimental Condition			
	Story-Present		Story-Absent	
Item	**Guilty**	**Innocent**	**Guilty**	**Innocent**
How much pressure did you feel to sign a written confession (1= no pressure at all, 5 = the most pressure I can imagine)?	2.36 (0.93)	2.80 (1.15)	3.00 (0.71)	2.57 (0.85)
I wanted to confess (1= strongly disagree, 5 = strongly agree)	3.36 (1.60)	1.93 (0.96)	3.69 (0.75)	2.57 (1.40)
How much stress are you currently experiencing (after the debrief session; 1= no stress at all, 5 = the most stress I can imagine)?	1.29 (0.61)	1.33 (0.49)	1.62 (0.87)	1.64 (0.74)

Table 4

Mean (and Standard Deviation) Response Lengths (number of seconds) to the Free Recall Question as a function of Condition

	Story	
Participant Behaviour	**Present**	**Absent**
Guilty	79.29	73.62
	(34.86)	(63.53)
Innocent	58.27	85.57
	(25.15)	(62.66)

Appendix A

Example of a Story from PIM

Interviewer: "Jim, you're not the first person I've sat across from who worries what their wife

is going to say when they find out that they have touched their own kid! And

that's certainly understandable, right Jim?"

Suspect: -nods head-

Interviewer: "Let me tell you about another case I worked on a last year. We'll call the guy

Tim and his daughter Rosie. Now Tim was a very loving father, cared for his

family, and worked hard to support then and make them happy. Actually he

reminded me a lot of you. You care about your family in the same way don't

you?"

Suspect: "Of course, I do"

Interviewer: "Great. Ok, now Rosie was about a year or so older than your daughter, cute kid,

pig tails, and a smile that would melt your heart. When Tim got home from work,

Rosie would be waiting for him to tuck her in and tell her a story. I want to

digress for a moment and talk about Tim. Tim is a survivor of male sexual abuse

and was abused by his grandfather for years as a young fella, much like you were

Jim. He'd never really dealt with what had happened to him and had kept it a

secret from those he cared about. I won't talk too much about what happened to

Rosie, but the fact was Tim was touching her much like you were touching Sara.

Tim knew what he did was wrong and he came to understand that what had been done to him was a factor in what he did to Rosie. Tim told me he was afraid what his wife and the rest of this family would do when they found out. He couldn't face what he did. But he found the courage to tell his story, not only what happened to Rosie, but also what had happened to him at the hands of his grandfather. I sat with him while he told his story to his wife. What do you think happened?"

Suspect: "I don't know. Got mad, threw up and walked out?"

Interviewer: "No, although she was of course shocked and confused, but she understood that Tim was a victim at some level. She hugged him. They cried together. It was very moving. I don't want to mislead you Jim, Tim was punished for what he did. There are, after all, consequences with respect to what he did as there will be with you. He's worked hard over the past year or so though and he's still got a relationship with both his wife and Rosie. And he's finally faced his demons. Jim, I know you are afraid but people will understand. Jim, do you want to be understood?" (Carr, 2015; p. 212)

Appendix B

Confederate Script

Initial request: "Can you help me with question 3? I'm not good at math"

Second request: "Don't worry, the experimenter won't find out"

Third request: "I'm sure it's not a big deal… I just really need help"

Appendix C

Logic Problem Questionnaire

Individual Problem #1

Suppose you are a bus driver. On the first stop, you pick up 6 men and 2 women. At the second stop, 2 men leave, and 1 woman boards the bus. At the third stop, 1 man leaves, and 2 women enter the bus. At the fourth stop, 3 men get on and 3 women get off. At the fifth stop, 2 men get off, 3 men get on, 1 woman gets off, and 2 women get on.

How many men are left on the bus? _____

How many women are left on the bus? _____

What's the bus driver's name? _____

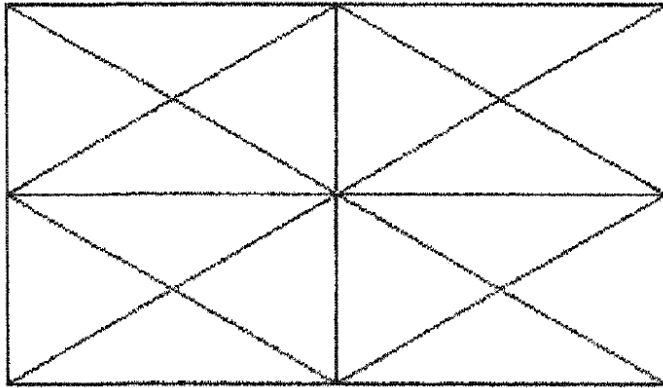**Team Problem # 1**

Starting with the word "COOL" change one letter at a time until you have the word "HEAT". Each change must result in a proper word, and you can use any letter in the alphabet. Keeping in mind that you can only change one letter per step, what is the minimum number of steps required to achieve this change? What are the steps?

Answer (Give steps, i.e., the words)

_____

_____

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Individual Problem #2

How many triangles can you find in the figure above?

Answer: _____

Team Problem # 2

Janet, Barbara, and Elaine are a housewife, lawyer, and physicist, although not necessarily in that

order. Janet lives next door to the house wife. Barbara is the physicist's best friend. Elaine once

wanted to be a lawyer, but decided against it. Janet has seen Barbara within the last two days, but

hasn't seen the physicist.

Janet, Barbara, and Elaine are, in that order, the

    a. Housewife, physicist, lawyer

    b. Physicist, lawyer, housewife

    c. Physicist, housewife, lawyer

    d. Lawyer, housewife, physicist

Appendix D

Perceptions of Interview Questionnaire (Story-Absent Conditions)

1. I think I know the true purpose of the study.

   ☐ Yes (If yes, what is the true purpose of the study?_____)

   ☐ No

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Below, please indicate on a 5-point scale, your level of agreement with the following statements:

2. Being accused of sharing answers was stressful

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

3. I believed that the consequences will be less severe if I confessed.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

4. I believed that sharing answers is common.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

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Perceptions to Interview Questionnaire (Story-Present Conditions)

1. I think I know the true purpose of the study.

   ☐ Yes (If yes, what is the true purpose of the study?_____)

   ☐ No

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Below, please indicate on a 5-point scale, your level of agreement with the following statements:

2. Being accused of sharing answers was stressful

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

3. I believed that the consequences will be less severe if I confessed.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

4. I believed that sharing answers is common.

1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

5. I found the character in the story (i.e., Sam) relatable.

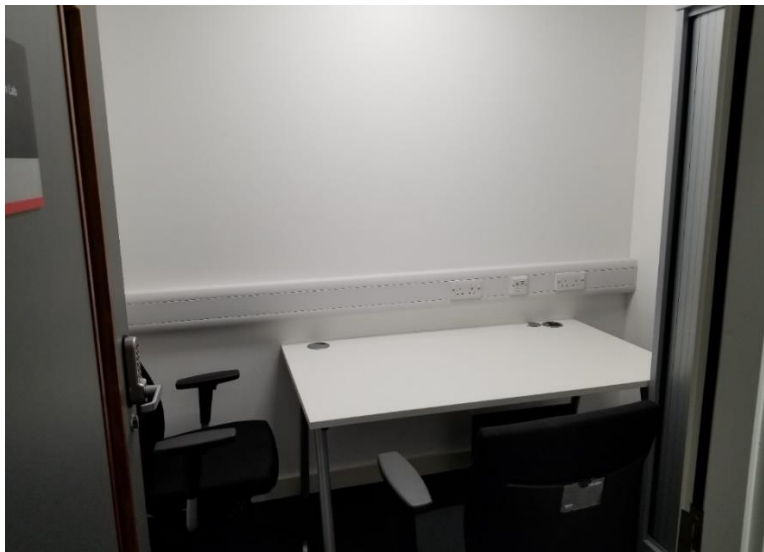| 1	2	3	4	5
Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree

Appendix E

Photographs of Testing Rooms

Photograph 1. Testing room used in the Pilot Study.

Photograph 2. Testing room used in the Main Experiment.

Appendix F

Interview Scripts

Pilot Study Interview Script (Story-Absent Conditions)

I was just talking to [insert confederate name here] and I think we have an issue here. I was looking over your answers from the problem-solving task, and based on what I saw it seems that you and [name] did not follow the rules of the experiment. On one of the problems that you were supposed to complete individually, you both got the same wrong answer. This led me to believe that you cheated by helping each other on that question. If that's true, it's a problem, because you were specifically told not to collaborate on the individual questions and by doing so, you may have compromised the results of the study.

I just spoke with, Dr. Snook, who is in charge of the study, and if this did happen, he would like you to sign this written confession admitting what you did.

Experimenter writes "I confess to sharing answers" on a piece of paper and hands it to the participant.

If participant agrees, the experimenter hands them the confession sheet and asks them to sign it and then proceeds with the rest of the questions.

If participant disagrees, the experimenter proceeds to ask the following questions.

Okay, [insert participant name here], I just want you to help me understand what happened here. So, please tell me everything that happened from the moment you walked in to this room until right now. Please don't leave anything out.

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Participant responds

Okay, so you confessed/did not confess to sharing answering. I want you to explain to me why you chose to do that?

Participant responds.

Thank you for that. Now the last thing that I need you to do is fill out this questionnaire.

Experimenter hands participant questionnaire.

Participant completes questionnaire.

Thank you very much! Here's a feedback sheet with more information about the experiment. I'd like to go over it with you so I can tell you more about the study and answer any of your questions.

Pilot Study Interview Script (Story-Present Condition)

I was just talking to [insert confederate name here] and I think we have an issue here. I was looking over your answers from the problem-solving task, and based on what I saw it seems that you and [name] did not follow the rules of the experiment. On one of the questions that you were supposed to complete individually, you both got the same wrong answer. This led me to believe that you cheated by helping each other on that question. If that's true, it's a problem, because you were specifically told not to collaborate on the individual questions and by doing so, you may have compromised the results of the study.

I just spoke with Dr. Snook, the professor who is in charge of the study, and if this did happen, he would like you to sign this written confession admitting what you did.

Experimenter writes "I confess to sharing answers" on a piece of paper and hands it to the participant.

If participant does not sign it, the experimenter tells the participant the following story.

You are not the first person I've sat across who worries that their professor will find out that they cheated. That's definitely understandable. I actually had a participant in one of my other experiments who was in the same situation. Let's call this participant Sam. Now, Sam, was a smart and hardworking student, and was very sweet. She reminded me a lot of you, actually. She just wanted to help the other participant. You also just wanted to help the other participant, right? Well, Sam was really worried that if she admitted that she helped the other participant that the professor in charge of the study would be upset and would not give her credit for participating in

the study. You know what happened when Sam came clean to the professor, the professor was upset at first but appreciated Sam's honesty. I don't want to mislead you though, Sam had to come in to re-do the study but she got credit for it and we were able to use her data. She felt a lot better after talking to the professor and everything was alright in the end. I know you're stressed about this, but you want to come clean, don't you?

If participant agrees, the experimenter hands them the confession sheet and asks them to sign it, and then proceeds to ask the following questions.

If participant disagrees, the experimenter proceeds to ask the following questions

Okay, [insert participant name here], I just want you to help me understand what happened here. So, please tell me everything that happened from the moment you walked in to this room until right now. Please don't leave anything out.

Participant responds

Okay, so you confessed/did not confess to sharing answering. I want you to explain to me why you chose to do that?

Participant responds.

Thank you for that. Now the last thing that I need you to do is fill out this questionnaire.

Experimenter hands participant questionnaire.

Participant completes questionnaire.

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Thank you very much! Here's a feedback sheet with more information about the experiment. I'd like to go over it with you so I can tell you more about the study and answer any of your questions.

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Main Experiment Interview Script (Story-Absent Conditions)

[Participant's name], I need you to listen to me carefully right now. I need to talk to you about something so I want you to hear me out and then I'll give you a chance to speak.

I was just looking over your answers and I think we have an issue here. It seems that you and [confederate's name] did not follow the rules of the experiment. On one of the problems that you were supposed to complete individually, you both got the same wrong answer. So, that makes me believe that you cheated by helping each other on that question. Now, I don't know if that actually happened, it may be that you cheated or maybe you didn't. But, I do need to get to the bottom of this.

If you did cheat then it's a problem, because you were specifically told not to do so, and so you essentially broke the rules of the experiment. This can be considered plagiarism and falsification of data, which is something that you can get in trouble for.

So, given everything I just said, is there anything you'd like to tell me?

If the participants confesses then the experimenter says:

I just spoke with Dr. Luther, the professor who is in charge of the study, and if this did happen, he would like you to sign this written confession admitting what you did.

Experimenter writes "I [participant's name] confess to sharing answers" on a piece of paper and hands it to the participant.

If participant agrees, the experimenter hands them the confession sheet and asks them to sign it and then proceeds with the rest of the questions.

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If participant disagrees, the experimenter proceeds to ask the following questions.

Okay, [insert participant name here], I just want you to help me understand what happened here.

So, please tell me everything that happened from the moment you walked in to this room until

right now. Please don't leave anything out.

Participant responds

Okay, so you confessed/did not confess to sharing answering. I want you to explain to me why

you chose to do that?

Participant responds.

Thank you for that. Now the last thing that I need you to do is fill out this questionnaire.

Experimenter hands participant questionnaire.

Participant completes questionnaire.

Thank you very much! Here's a feedback sheet with more information about the experiment. I'd

like to go over it with you so I can tell you more about the study and answer any of your

questions.

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Main Experiment Interview Script (Story-Present Conditions)

 [Participant's name], I need you to listen to me carefully right now. I need to talk to you about something so I want you to hear me out and then I'll give you a chance to speak.

I was just looking over your answers and I think we have an issue here. It seems that you and [confederate's name] did not follow the rules of the experiment. On one of the problems that you were supposed to complete individually, you both got the same wrong answer. So, that makes me believe that you cheated by helping each other on that question. Now, I don't know if that actually happened, it may be that you cheated or maybe you didn't. But, I do need to get to the bottom of this.

If you did cheat then it's a problem, because you were specifically told not to do so, and so you essentially broke the rules of the experiment. This can be considered plagiarism and falsification of data, which is something that you can get in trouble for.

You are not the first person I've sat across who has made a mistake. I definitely understand that you might be worried about getting in trouble for this.

I actually had a participant in one of my other experiments who was also in the same situation. She also shared answers with someone else during the experiment. Let's call this participant Sam. Now, Sam, was a smart, considerate, and hardworking student. She reminded me a lot of you, actually. She just wanted to help the other participant. You probably also just wanted to help the other participant.

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Well, Sam was really worried that if she admitted that she helped the other participant that the professor in charge of the study would be upset, and would not give her credit for participating in the study, and that she would get in a lot of trouble. You know what happened when Sam came clean to the professor, the professor was upset at first but appreciated Sam's honesty. I don't want to mislead you though, there were consequences to what Sam did. Basically, the professor decided that he would let this go if Sam came in to re-do the study. So, Sam came in and re-did the study, she got her SONA point, we were able to use her data, and everything was alright in the end. You want to come clean as well, don't you?

If the participants confesses then the experimenter says:

I just spoke with Dr. Luther, the professor who is in charge of the study, and if this did happen, he would like you to sign this written confession admitting what you did.

Experimenter writes "I [participant's name] confess to sharing answers" on a piece of paper and hands it to the participant.

If participant disagrees, the experimenter proceeds to ask the following questions

Okay, [insert participant name here], I just want you to help me understand what happened here. So, please tell me everything that happened from the moment you walked in to this room until right now. Please don't leave anything out.

Participant responds

Okay, so you confessed/did not confess to sharing answering. I want you to explain to me why you chose to do that?

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Participant responds.

Thank you for that. Now the last thing that I need you to do is fill out this questionnaire.

Experimenter hands participant questionnaire.

Participant completes questionnaire.

Thank you very much! Here's a feedback sheet with more information about the experiment. I'd like to go over it with you so I can tell you more about the study and answer any of your questions.

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Appendix G

Post-Debriefing Questionnaire

Below, please select the most appropriate statement as it applies to you:

1. How much pressure did you feel to sign a written confession?

1	2	3	4	5
No Pressure at All	Little Pressure	Some Pressure	A lot of pressure	The Most Pressure I can Imagine

2. I wanted to confess

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

3. Given everything we just discussed in the debriefing session, how much stress are you currently experiencing?

1	2	3	4	5
No Stress at All	Little Stress	Some stress	A lot of Atress	The Most Stress I can Imagine

Appendix H

Debriefing Sheet

Unique Code:_____

Thank you for participating in the study! Your participation and the data that you contributed are valuable for our research. This sheet is intended to explain to you the purpose and hypotheses of the study in which you have just participated.

The purpose of the present study was not to assess the relationship between problem solving skills and legal reasoning. Rather, the real purpose was to evaluate the ability of certain police tactics to elicit true and false confessions. Specifically, this study examined if a certain police tactic would lead you to confess to sharing answers, whether or not you actually did. We apologise for deceiving you but it was necessary to ensure the results of the study were not compromised.

Confession evidence is one of the most important and influential forms of evidence in criminal trials, and often leads to the conviction of a suspect. Consequently, one of the main goals of criminal investigations is to obtain confessions. Police officers are trained to use multiple techniques to secure a confessions from suspects. However, research has shown that some of these techniques can lead to false confessions, where an individual confesses to a crime s/he did not commit. The goal of this study, therefore, was to examine the effectiveness of storytelling (i.e., a story from a previous cheating incident; a technique sometimes used by police officers) on eliciting true and false confessions. Results of this study will contribute to the psychological literature on false confessions, factors that may facilitate false confessions, and how we can reduce their prevalence. This will also help inform police officers and investigators on the best practice interviewing techniques.

We understand that, as a result of this experiment and the deception involved, you may be experiencing feelings of guilt or stress about your actions. Specifically, we understand that it is possible you feel that you did something wrong if you decided to share answers with the other participant, and that the accusations placed on you by the primary investigator and the subsequent interrogation could have made you perceive your actions even more negatively.

We would like you to know that, first of all, you did not actually do anything wrong during the experiment – helping a fellow student in this setting is a positive, prosocial behaviour that we

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expected from most participants. We only accused you of doing something wrong as part of the experimental manipulation, which was necessary in order to determine the effect of a certain interrogation tactic in eliciting confessions. Second, no one other than the primary investigator, yourself, and the research assistant posing as the second participant will ever know anything about your actions during this study. You have nothing to fear in terms of repercussions for your actions today. The lecturer for the course in which you signed up for this study will not know anything about what happened today, nor will any of your other professors, instructors, teaching assistants, or fellow students.

Withdrawing Policy.
If you decide that you want to withdraw from this research, please contact us (researchers) within one week and quote your participation number to allow us to locate your data and withdraw it.

Furthermore, please contact us if you should have any queries or concerns. If you feel unable to raise these concerns with us, then you may speak in confidence to the Head of the Department of Psychology. View all contact information below.

Some final things:
   1) **Due to the sensitive nature of the experiment and the potential importance of the results, I ask that you please do not tell anyone the true aim of our experiment!**
   2) If you feel you need support and you are uncomfortable speaking with the researchers involved in this study, please do not hesitate to contact Lancaster University's Wellbeing, Counselling, and Mental Health Services at +44 (0) 1524 592 690 or counselling@lancaster.ac.uk or contact your college advisors.

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at (+1) 709-864-2861.

If you would like to learn more about police interrogations and false confessions, please see the following articles:

Kassin, S. M., Drizin, S. A., Grisso, T., Gudjonsson, G. H., Leo, R. A., & Redlich, A. D. (2010). Police-induced confessions: Risk factors and recommendations. *Law and Human Behavior, 34*, 3-38. doi:10.1007/s10979-009-9188-6

Kassin, S. M. & Kiechel, K. L. (1996). The social psychology of false confessions: Compliance, internalization, and confabulation. *Psychological Science, 7*, 125-128. doi:10.1111/j.1467-9280.1996.tb00344.x

Kassin, S. M., & Wrightsman, L. S. (1985). Confession evidence. In S. Kassin & L. Wrightsman (Eds.), The psychology of evidence and trial procedure (pp. 67–94). Beverly Hills, CA: Sage

Russano, M. B., Meissner, C. A., Narchet, F. M., & Kassin, S. M. (2005). Investigating true and false confessions within a novel experimental paradigm. *Psychological Science, 16*, 481-486. doi:10.1111/j.0956-7976.2005.01560.x

Contact Information

Researchers: Head of Department:

Weyam Fahmy   Kirk Luther   Charlie Lewis[1]

w.fahmy@lancaster   k.luther@lancaster.   psychology.hod@lancaste
.ac.uk   ac.uk   r.ac.uk
                     01542 594543   01524 593990
                     Fylde College   Fylde College
                     Lancaster   Lancaster University
                     University   Bailrigg
                     Bailrigg   Lancaster LA1 4YW
                     Lancaster LA1
                     4YW

[1] As head of the Psychology Department, Charlie Lewis offers a contact you can approach if you wish to speak to someone independent of the research team.