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The Influence of Evidence Disclosure Timing and Strength on Statement-Evidence Inconsistencies, Within-Statement Inconsistencies and Information Disclosure by Mock Suspects

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Abstract

Although previously found to be adept at lie detection, it is important to also investigate whether the Strategic Use of Evidence has an effect on other relevant factors, such as the disclosure of novel investigative information by the suspect and the perceived rapport by the suspect between interviewer and interviewee. Moreover, the strength of evidence is important to integrate into the study to find out whether, when combined with the Strategic Use of Evidence, it influences the effects in any way. This study investigated whether evidence disclosure timing (early vs late) and evidence strength (weak vs strong) have an influence on the number of inconsistencies between pieces of evidence and statements (statement-evidence inconsistencies), inconsistencies within mock suspects' statements (within-statement inconsistencies), mock suspects' provision of novel investigative information, and the perceived rapport. It was also explored whether the perceived rapport has an influence on the suspects' provision of novel investigative information. The participants ($N=101$) were assigned to one of the four conditions, interviewed online and completed a questionnaire measuring the perceived rapport. The findings indicate that late disclosure leads to more statement-evidence inconsistencies and within-statement inconsistencies without affecting rapport. The rapport was not found to influence suspects' provision of novel investigative information. In the case of early disclosure, strong evidence produced fewer statement-evidence inconsistencies than weak evidence. Thus, it appears wise to be especially cautious of disclosing strong evidence early as this allows suspects to produce a plausible account explaining away the evidence. No effects of disclosure timing, evidence strength or rapport on novel investigative information were found. This research again supports the notion that the Strategic Use of Evidence can aid lie detection by making use of inconsistencies, but it does not seem to influence suspects' provision of novel investigative information.

Introduction

In many shows and movies, officers somehow are able to see whether or not the suspect in question is telling the truth. They are able to distinguish lies simply because a suspect is moving around too much or looking to the left too often. However, in real life, this is not the case. Both people who have no experience in the field and people who are deemed as expert lie detectors have not been found to be successful in differentiating between lies and the truth (Kassin, Meissner & Norwick, 2005). Suspect interrogation is one of the most essential parts of crime investigation (Holmberg & Christianson, 2002). Therefore, it is important that suspect interrogations are conducted efficiently (Hartwig, Granhag & Vrij, 2005). Because it has been proven that people do not necessarily function well as lie detectors, research in this field is highly important. Since people are inaccurate detecting lies, whether they are 'trained' or not (Bond & DePaulo, 2006), advanced lie detecting strategies are necessary to optimize investigative interviews. Disbelieving true statements made by suspects can lead to unjust convictions (Wells et al., 1998) and falling for deceptive suspect statements can negatively affect legal procedures in the long run (Fawcett, 2015). Thus, it is crucial in the legal field to be able to discriminate between true and false statements (Sakrisvold, Granhag & Giolla, 2017).

A prominent framework in the field of lie detection is the Strategic Use of Evidence (SUE) technique (Granhag & Hartwig, 2015). It was found that only disclosing the available evidence to the suspect after they have stated their description of what occurred, appears to be a good method of actively detecting lies by a suspect (Hartwig, Granhag, Strömwall & Vrij, 2005). In guilty suspects, this tends to lead to more inconsistencies between the suspect's initial statement and the available evidence (statement-evidence inconsistencies) and more inconsistencies within the statement of a suspect, so that the suspect alters their description of events after the evidence is presented (within-statement inconsistencies). This framework provides a structure aiming to improve the detection of lies in suspect interviewing. Hartwig, Granhag, Strömwall and Kronkvist (2006) stated that individuals who were trained using this particular framework were more successful at detecting deception than individuals who were not. Hartwig, Granhag, and Luke (2014) state that even though there is still work to be done, the framework is a solid and effective way of obtaining deceptive cues.

However, as stressed by Oleszkiewicz & Watson (2020), there is an obvious need to keep up the research. In the last six years, little research has been done on the effect of evidence disclosure timing on inconsistencies. This is troublesome as even though disclosing

the evidence to a suspect later in the interview is likely to be more beneficial than disclosing it early in the interview, the size of this benefit remains unclear (Oleszkiewicz & Watson, 2020). Moreover, Oleszkiewicz and Watson (2020) stress that the samples used by studies that have been conducted on the topic have been mostly small in size. Therefore, this research aims to research these effects once again and to extend the research with other potentially impactful concepts; the strength of the available evidence and the rapport between the interviewer and the suspect. The effect of evidence strength on inconsistencies between evidence and statements and within statements and on the provision of novel information related to the crime by the suspect has not been researched thoroughly at this point in time. Therefore, in this research it will be investigated. Moreover, the focus of the Strategic Use of Evidence framework lies primarily on lie detection (Granhag & Hartwig, 2015). Yet, a highly important goal in a suspect interview is the retrieval of important information relevant to the crime (Tekin, Granhag, Strömwall, & Vrij, 2016). This research aims to test whether the Strategic Use of Evidence paradigm, aside from potential benefits for lie detection, can also be of help in reaching the goal of obtaining novel investigative information.

Furthermore, rapport has been found to be able to influence investigative interviews, especially regarding the provision of novel investigative information by a suspect (Gabbert, et al., 2020). Therefore, rapport will also be taken into account in this research. It will be investigated whether using the SUE might damage the relationship between the interviewer and the suspect and explored if rapport can have an effect on the factors included in this research. All aforementioned factors will be discussed in the following paragraphs. The focus of the following section will be on evidence disclosure timing, statement-evidence inconsistencies and within-statement inconsistencies.

Evidence disclosure timing and inconsistencies

Suspects attempt to minimize the sense of threat by aiming to predict the course of the interview. They tend to spend time predicting the kind of evidence they will be faced with. This phenomenon is also known as *information control* (Granhag & Hartwig, 2008). Information control in turn influences suspects' *decision control*. Decision control concerns the suspects minimizing the threat by deciding on what to actually do during interviews. The suspects decide on what to admit, what not to mention and what to deny (Granhag & Hartwig, 2008). Guilty suspects are likely to act one of two ways during interviews. They tend to either adopt an *avoidant* strategy and do not mention anything that could tie them to the crime in any way, or they adopt a *denial* strategy and actively deny being somewhere or doing something (Granhag & Hartwig, 2008). This behavior, as stated by Granhag & Hartwig (2008), actually

aligns with previous psychological theories on human behavior. *Avoidance* and *escape* were introduced by Carlson, Buskist & Martin (2000). Avoidance concerns the prevention of being confronted with a threat and escape regards acting in order to terminate a threat. Suspects tend to avoid mentioning anything that might tie them to the crime but once avoidance is no longer regarded as an option, they try to escape by making use of denial (Granhag & Hartwig, 2008).

Guilty mock suspects use a variety of strategies in order to appear truthful whilst being interviewed (Hartwig, Granhag & Strömwall, 2007). This is also applicable to real suspects as suspects have claimed that planning their behavior can be of great benefit when trying to convince someone of a lie (Granhag, Andersson, Strömwall & Hartwig, 2004). The behavior portrayed by a suspect reflects the strategy they have chosen (Granhag & Hartwig, 2008). The timing when the evidence is disclosed to the suspect influences the potential strategies employed by the suspect (Hartwig et al., 2005), which in turn likely play a role in the manufacturing of statement-evidence and within-statement inconsistencies. These influences will now be discussed.

Hartwig, Granhag and Luke (2014) noted that guilty suspects are highly likely to make statement-evidence inconsistencies regardless of the timing of evidence disclosure. However, they also found that the number of these contradictions almost double when evidence is disclosed to the suspect in a late stage of the interview. Thus, when the suspect initially is not aware of the available evidence against him, he is more prone to make statements that contradict the evidence (Hartwig, Granhag, & Luke, 2014). It has been found that these statement-evidence inconsistencies actually serve as a reliable indicator of deception (Hartwig, Granhag, & Luke, 2014). Therefore, the late disclosure of evidence appears to be able to be of great benefit for lie detection.

When the suspect is made aware of all the available evidence against him at the beginning of the interview (early disclosure), the suspect will likely use different strategies than they would when the evidence is disclosed after collecting the suspect's claims about what happened (late disclosure) (Hartwig et al., 2005). Thus far, studies have consistently shown that late disclosure is more effective at catching a suspect in a lie than early disclosure. This is because early disclosure allows the suspect to integrate the available evidence into their explanation of what has occurred. This then allows the suspect to manufacture credible lies (Oleszkiewicz & Watson, 2020). This way, the statements of suspects likely will not contradict the evidence. On the other hand, in the case of late disclosure, more cues to deception can arise. It was found that liars provided fewer details (DePaulo et al., 2003) and attempted to keep their story simpler (Strömwall, Hartwig, & Granhag, 2006) when asked for

a recall of the crime they are suspected of. There are a few reasons for this phenomenon. First, the liar does not want to contradict anything the interviewer might know and a shorter and simpler story is less likely to make this happen. Second, it can be more cognitively demanding to lie, leaving less cognitive space to produce a long, elaborate story and third, the suspect might believe there is no evidence available, leading them to leave out any information that might connect them to the crime scene (Hartwig et al., 2005). Therefore, in the case of late disclosure of evidence, liars may make statements that omit details of the crime or even directly contradict the available evidence, both of which are statement-evidence Inconsistencies.

Suspects unaware of the evidence against them are likely to make use of *avoidant* strategies in order to circumvent any topics that might make them appear suspicious and preserve a sense of information control. Once avoidance is no longer an appealing option, the suspects are likely to *escape* by making use of denial strategies (Granhag & Hartwig, 2008). Being presented with the evidence can lead to the suspect attempting to adapt their account to make sense of the evidence rather than avoiding it (Granhag, Strömwall, Willén, & Hartwig, 2013). Therefore, in the case of late disclosure, more statement-evidence inconsistencies and within-statement inconsistencies should be made than in the case of early disclosure. Evidence disclosure timing could have an effect on other factors aside from inconsistencies, among which novel investigative information might be present. This will be discussed in the next paragraph.

Evidence disclosure timing and novel investigative information

In the past, the Strategic Use of Evidence framework has focused primarily on lie detection and makes use of statement-evidence inconsistencies in order to do this (Granhag & Hartwig, 2015). However, this is not necessarily the primary goal of a suspect interview. One of the primary objectives in any suspect interview concerns the recovery of important information relevant to the crime (Tekin et al., 2016). Novel investigative information refers to any vital pieces of information of which the interviewer was previously unaware and which can provide novel clues or link a suspect to an offense (Tekin et al., 2015). Recently, this measure has gained popularity in research regarding evidence disclosure (Tekin et al., 2016; Walsh & Bull, 2015). When one claims they did not perform the act of which they were accused, and not much evidence is present, the recovery of novel relevant information is of the utmost importance (Tekin et al., 2016) as any piece of relevant information can help progress the case.

The elicitation of novel investigative information can also be facilitated by manipulating the timing of the evidence disclosure. (Granhag & Hartwig, 2015). Hartwig et al. (2005) found that guilty suspects were more likely to withhold novel information in the case of late disclosure compared to early disclosure. It is highly important to test this as this could mean that the Strategic Use of Evidence framework, although adept at lie detection, inhibits the gathering of novel investigative information.

The impression the suspect has regarding the evidence and knowledge held by the interviewer has an influence on the strategy the suspect uses which successively has an influence on the amount of information revealed by the suspect in question (Granhag & Hartwig, 2008). Initially, guilty suspects tend to make use of avoidant strategies and omit any information that might incriminate them (Strömwall, Hartwig & Granhag, 2006). However, suspects who assume that there is evidence against them are less likely to avoid discussing their activities relevant to that piece of evidence and instead start making use of denial strategies in order to escape (Granhag & Hartwig, 2008). It is possible that immediately handing all evidence (which increases the suspect's information control) to the suspect, creates an opportunity for the suspect to disregard the avoidant strategies and start making use of denial strategies straight away. This immediate nudge towards denial strategies might lead to the suspects being more forthcoming as merely omitting everything related to the evidence is no longer regarded as a potentially successful strategy. Therefore, it might be the case that early disclosure leads to more novel investigative information being provided by the guilty suspect than does late disclosure.

However, Tekin et al. (2016) suggested that suspects become more forthcoming when they are confronted with their own statement-evidence inconsistencies. These statement-evidence inconsistencies are expected to arise more often in the case of late disclosure. Late disclosure inhibits the suspects' information control as the evidence is only disclosed after the suspect has produced their initial account. Once the evidence is disclosed and the suspect finally has a sense of information control, the suspect might switch from an avoidant (in order to preserve a sense of information control) to a more forthcoming denial strategy (in order to manufacture a credible account explaining away the evidence). Therefore, late disclosure could lead to more novel investigative information being disclosed by the suspect. Thus, literature suggests conflicting accounts of what could happen. These different hypotheses will be tested. The effect of evidence disclosure timing on novel investigative information being provided by the suspect in an experimental setting will be investigated in order to get a clearer overview on the matter. Another factor that might have an effect on the manufacturing of

inconsistencies and the elicitation of novel investigative information is the strength of the available evidence. The next paragraph will cover the potential effects of the strength of the evidence.

Strength of evidence

It was found that the perception of the strength of the evidence by suspects is a very important reason to either confess to a crime or not (Gudjonsson, 2007), indicating that evidence strength is of high importance in suspect interviewing and could prove to be relevant to the obtaining of statement-evidence and within-statement inconsistencies and to the provision of novel investigative information by suspects. Furthermore, as evidence strength is likely to strongly influence the behavior of a suspect during an interview (Moston, Stephenson & Williamson, 1992) and the suspects' behavior reflects the chosen strategy (Granhag & Hartwig, 2008), it is important to investigate whether adding the factor evidence strength to the Strategic Use of Evidence framework influences the suspects' chosen strategies and in turn has an effect on the number of statement-evidence and within-statement inconsistencies and the amount of novel investigative information being provided by the suspect.

When it comes to the effect of evidence strength on statement-evidence and within-statement inconsistencies, not much research has been done thus far. Hartwig et al. (2005) stated that suspect statements are mostly inconsistent with the evidence when the suspect does not know what evidence there is. Brimbal and Luke (2019) found that statements made by participants were more in line with the evidence when the evidence was very incriminating as stronger evidence links the suspect to the crime more heavily than does weaker evidence. As late disclosure is likely to lead to more statement-evidence and within-statement inconsistencies, and strong evidence should lead to statements more in line with the evidence, it is expected that strong evidence will lead to more within-statement inconsistencies than weak evidence in the case of late disclosure. In the case of late disclosure, the statement-evidence inconsistencies are expected to be similar in the cases of weak and strong evidence as the participant is not aware of the evidence strength before providing their initial account, likely causing a low sense of information control and in turn resulting in an initial avoidant strategy. As both early disclosure and strong evidence are likely to give rise to fewer statement-evidence and within-statement inconsistencies, it is expected that strong evidence leads to fewer statement-evidence and within-statement inconsistencies than weak evidence in the case of early disclosure.

It is important to investigate whether evidence strength can also have an influence on the disclosure of novel investigative information. It was found that when the suspect believes the evidence against them makes them seem more suspicious, they are more prone to elaborate in order to ward off inconsistencies between any available evidence and their statements, and thereby give rise to more novel investigative information (Granhag, Clemens, & Strömwall, 2009). In the case of early disclosure, the suspects are made aware of the available evidence at the onset of the interview, enhancing the perceived information control and allowing the suspects to start elaborating in order to avoid making inconsistent statements straight away. Therefore, in the case of early disclosure, strong evidence is expected to lead to more novel investigative information being disclosed by the guilty suspect in comparison to weak evidence. Moreover, suspects are likely to become more forthcoming when they are confronted with their own statement-evidence inconsistencies (Tekin et al., 2016), and these inconsistencies are expected to arise more in the cases of late disclosure and strong evidence. Being confronted with their own statement-evidence inconsistencies is likely to finally give the suspect a sense of information control. When the evidence increasing the sense of information control is weak, continuing to use an avoidant strategy could still be an appealing option as this evidence is relatively easier to disregard and would require less extensive adaptations to their initial omission or account. When the evidence increasing the information control is strong, it might lead to the suspect feeling that it is useless to deny what the police already knows and in turn lead to them switching from an avoiding to a more forthcoming strategy (likely taking the form of denial). Thus, strong evidence is also expected to lead to more novel investigative information being disclosed by the guilty suspect in comparison to weak evidence in the case of late disclosure. This research will investigate this in an experimental setting. A factor that might also affect the elicitation of novel investigative information is rapport, which will now be discussed.

Rapport

Within investigative interviews, rapport has been shown to be able to elicit beneficial outcomes, including the gathering of novel information (Gabbert et al., 2020). Creating rapport at the beginning and maintaining it all throughout an interview was found to be fundamental (Alison, Alison, Noone, Elntib & Christiansen 2013). Rapport can be defined as “the bond or connection between an investigative interviewer and interviewee” (Vallano, Evans, Schreiber Compo & Kieckhaefer, 2015, pp. 369). Furthermore, noncoercive approaches within investigative interviews aim to establish rapport whereas coercive methods aim to establish control (Duke, Wood, Bollin, LaBianca & Scullin, 2018). Research has

shown that noncoercive approaches can be superior to coercive methods when it comes to the elicitation of novel investigative information by, for example, suspects (Oleszkiewicz, Granhag & Montecinos, 2014). It might be expected, then, that there exists a relationship between rapport and the provision of novel investigative information such as that higher rapport leads to more novel investigative information being provided by the suspect.

If there exists an effect of rapport on the elicitation of novel investigative information, it is highly important to investigate whether the Strategic Use of Evidence could in any way disrupt the perceived rapport by the suspect. No research has been done thus far on any potential effect evidence disclosure timing might have on rapport. Amongst other factors, trust and respect play a role in the building of rapport between interviewer and interviewee (Duke et al., 2018). The late disclosure of evidence could serve as a potential threat to the perceived rapport by the suspect when compared to early disclosure, as the holding back of evidence until later on in the interview by the interviewer might affect the way the suspect trusts, or perceives their relationship with, the interviewer. A study by Clemens, Knieps and Tekin (2020) examining police officers' anticipated problems with the SUE found that there existed worry regarding a potential disruption of the natural interaction between the officer and the suspect. Officers stated that tightly adhering to the SUE could appear too unnatural and rigid, making connecting to the suspect more problematic (Clemens, Knieps & Tekin, 2020) and building rapport essentially consists of forming a connection between the interviewer and the suspect (Vallano et al., 2015). Therefore, it is important to investigate whether the time the evidence is disclosed to the suspect actually has an effect on the perceived rapport by the suspect.

Hypotheses

Because early disclosure provides the suspect with an opportunity to integrate the available evidence into their recall of what happened and facilitates the manufacturing of credible lies (Oleszkiewicz & Watson, 2020), it is hypothesized that early disclosure will lead to fewer statement-evidence and within-statement inconsistencies than late disclosure. Furthermore, because suspects tend to avoid providing any information that might deem them suspicious and are less likely to avoid the topic when they assume there is evidence against them (Strömwall, Hartwig & Granhag, 2006), it could be that early disclosure leads to more novel investigative information being provided by the suspects than late disclosure. However, since suspects become more forthcoming after being confronted with their own statement-evidence inconsistencies (Tekin et al., 2016) and these are more likely to arise in the case of

late disclosure, it could also be that late disclosure actually leads to more novel investigative information. It will be investigated which, if any, of these potential outcomes arise.

Moreover, as it was found that a suspect who assumes the evidence deems them more suspicious is more likely to elaborate and therefore gives rise to more novel investigative information (Granhag, Clemens & Strömwall, 2009), it is hypothesized that strong evidence leads to more novel investigative information being provided by the suspects than weak evidence. Moreover, as strong evidence was found to lead to suspects making statements more consistent with the evidence (Brimbal & Luke, 2019), it is hypothesized that strong evidence leads to fewer statement-evidence and within-statement inconsistencies than weak evidence in the case of early disclosure. Furthermore, it is hypothesized that in the case of late disclosure, strong evidence actually leads to more within-statement inconsistencies than weak evidence and that evidence strength does not affect the number of statement-evidence inconsistencies in the case of late disclosure. Lastly, it will be investigated whether the timing the evidence is disclosed to the suspect and the strength of the evidence have an effect on the perceived rapport between the interviewer and the suspect by the suspect and whether rapport has an effect on the provision of novel investigative information by the suspect.

Methods

Participants

Convenience sampling was used to recruit participants. Participants were recruited through the University of Twente's participant recruitment (SONA) system. The family and friends of the researchers were also requested to participate in the research, in person and via Facebook and Instagram posts. One hundred and one people voluntarily agreed to take part. The participants were made aware that the interviews would be videotaped before the start of the experiment. 54.5% were female ($N=55$) and 45.5% were male ($N=46$). The participants were between 18 and 63 years of age ($M = 25.55$, $SD = 7.34$). 44.6% were students at the University of Twente ($N=45$), 44.6% were not a student ($N=45$) and 10.9% were a student somewhere other than at the University of Twente ($N=11$).

Design

The study consisted of a 2x2 between-subjects design in regards to the Evidence Disclosure Timing (early vs late) and Evidence Strength (weak vs strong) of the evidence disclosure. The participants were randomly assigned to one of the four groups. There were 26 participants in the Early Disclosure of Weak Evidence group, and 25 in the Early Disclosure of Strong Evidence, Late Disclosure of Weak Evidence and Late Disclosure of Strong Evidence groups.

Procedure and materials

Pre-interview. The project received ethical approval from the BMS faculty of the University of Twente. After signing up to take part in the research, an instruction sheet was sent to the participants in which the participants were instructed that they were going to be portraying suspects guilty of a theft and that their task was to try to convince the interviewing officer of their innocence (See Appendix I). The crime in question concerned the theft of Air pods from a bag at the library. The participants were asked to imagine that they were short on money. They entered the library to search for a new job when a wealthy-looking man next to them spilled his coffee over their notes after which he left to go to the bathroom. The participants were told they then walked over to his bag, saw a sealed, brand-new pair of Air pods and took them. They then went to a store to sell them in return for a voucher.

Interview. The participants were then invited to a video call with the researchers. If any of the participants were familiar with one of the researchers, the interviewer was portrayed by the other researcher. The researcher who was not portraying the interviewer welcomed the participant, obtained the participant's informed consent and informed them that they could leave at any moment. They then muted themselves, turned their camera off and let the other researcher conduct the interview.

The interviews were based on an interrogation paradigm first introduced by Kassin and Fong (1999) as used by Hartwig et al. in 2005 in their SUE study. See Appendix II for the interview scripts. The interviews in the early disclosure group started off with the researcher introducing themselves as an officer and telling the participants they were suspected of having stolen Air pods from a table at the library. They were then asked whether they had committed the crime. They were then presented with the evidence against them. The available evidence in question consisted of the following pieces. In the Weak Evidence group, the participants were told that they were logged into a computer in the library at the moment of the theft. Furthermore, they were told that their fingerprints were found on the victim's table. Lastly, they were told that the receptionist thought she saw someone that looked like the suspect looking in the victim's bag. In the Strong Evidence group, the participants were told that they were logged into the computer next to the victim's table at the moment of the theft. Moreover, they were told that their fingerprints were found on the victim's bag and that there is camera footage of them going through the victim's bag. They were then requested to provide the officer with a full account of what they were doing during the time of the crime. Afterwards, they were asked whether they had been in the library, whether they had seen the Air pods and whether they had touched them. At the end of the interview, they were asked one last time

whether they confess to the crime or not after which they were thanked for their participation. The participants in the Late Disclosure group were also presented with these questions, but the available evidence was only disclosed to the participants after they finished their initial account of their actions at the time of the crime and answered all questions. After the evidence was disclosed, they were asked to comment on the evidence and whether or not they confess to the crime after which the interview was ended.

Post-interview. After the interviews were done, the interviewer muted herself and turned the camera off. The researcher who welcomed the participants asked the post hoc questions and thanked the participants for their cooperation after the interview and sent a Qualtrics questionnaire to the participants which included demographic questions regarding their age and occupation and the rapport scale introduced by Duke et al. (2018). This scale consisted of 21 statements (e.g., “The interviewer respects my knowledge” and “The interviewer was attentive to me”) to which the participants could state to what extent they agreed using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The scale had a good internal consistency ($\alpha = 0.94$).

Afterwards, the recorded interviews were coded. When the participants made a statement that was not in line with the available evidence or decided not to mention something that would account for the evidence, it was marked as a statement-evidence inconsistency. The statements had to go against or omit one of the three pieces of evidence in order to be marked as a statement-evidence inconsistency (e.g., ‘I was not at the library’ is an inconsistency because the evidence shows they were logged onto a library computer during the time of the crime). Where participants made a remark that went against something they had stated previously in the interview, it was marked as a within-statement inconsistency (e.g., ‘I had already left the library during the time of the crime’ vs ‘Oh yeah, I came back later so maybe I was there’). Furthermore, whenever the participants disclosed information relevant to the crime that the officer was not yet aware of, it was marked as a piece of novel investigative information. These consisted of any checkable statements about what happened which are not related to the pieces of evidence held by the interviewer.

Results

Table 1 presents the means, standard deviations and correlations between the measured variables Statement-Evidence Inconsistencies (SEI), Within-Statement Inconsistencies (WSI), Novel Investigative Information (NII), and Rapport. The rapport scale was slightly negatively skewed and showed some indications of a ceiling effect. The moderate

skew (-.54) was not sufficient as to make transforming the data for normality necessary. See Appendix III for a histogram visualizing the distribution of Rapport.

Statement-Evidence Inconsistencies and Within-Statement Inconsistencies were positively correlated, $r(99) = .46, p < .001$, while Statement-Evidence Inconsistencies and Novel Investigative Information were negatively correlated, $r(99) = -.33, p = .001$. In contrast, Within-Statement Inconsistencies and Novel Investigative Information were positively correlated, $r(99) = .28, p = .005$. Rapport and Novel Investigative Information were not significantly correlated, $r(99) = .08, p = .45$.

As did Oleszkiewicz & Watson (2020), Hedges' g is reported within the analyses in order to give a standardized measure of effect size for comparison across other studies in attempt to compensate for the relatively small sample sizes commonly found in evidence disclosure literature. Hedges' g is reported for Statement-Evidence Inconsistencies, Within-Statement Inconsistencies and Rapport (Hedges & Olkin, 1985).

Table 1

Descriptive Statistics and Correlations

	M	SD	Rapport	Statement-Evidence Inconsistencies	Within-Statement Inconsistencies
Rapport	3.90	0.74			
SEI	1.43	0.91	-.06		
WSI	0.58	0.83	.02	.46*	
NII	2.21	2.10	.08	-.33*	.28*

$N=101$

* $p < .05$

Table 2 shows the number of statement-evidence inconsistencies that were provided by the suspects in each category (early disclosure/weak evidence, early disclosure/strong evidence, late disclosure/weak evidence and late disclosure/strong evidence). In total, only two people went against all three pieces of evidence by either stating they were not present at the library or by saying nothing at all. In the early disclosure of weak evidence category, 50% went against two pieces of evidence, the others went against either one or zero pieces of evidence. In the early disclosure of strong evidence category, 72% came up with stories coherent with all pieces of evidence. In both late disclosure categories (weak and strong evidence), almost all suspects made statements that went against two pieces of evidence. Almost all placed themselves at the scene of the crime by admitting being at the library, but

failed to mention a plausible explanation for the other two pieces of evidence (their fingerprints being found on the victim's table/bag and being spotted by the receptionist/CCTV camera looking into the victim's bag) before being presented with them. It is very important to note that only 1.4% of statement-evidence inconsistencies consisted of fabrications that directly contradicted the evidence and 98.6% of statement-evidence inconsistencies were omissions because the suspect did not mention anything to contradict or account for the available evidence.

Table 2

Frequencies of Statement-Evidence Inconsistencies

Evidence Strength	No. Statement-Evidence Inconsistencies	Frequency (%)	
		Early Disclosure	Late Disclosure
Weak	0	7 (27%)	1 (4%)
	1	6 (23%)	0 (0%)
	2	13 (50%)	23 (92%)
	3	0 (0%)	1 (4%)
Strong	0	18 (72%)	1 (4%)
	1	0 (0%)	0 (0%)
	2	6 (24%)	24 (96%)
	3	1 (4%)	0 (0%)

Table 3 shows the number of within-statement inconsistencies provided by the suspects in each category. In both early disclosure categories (weak and strong evidence), almost no one made any within-statement inconsistencies. In the late disclosure of weak evidence category, most people made one within-statement inconsistency whereas the others made either zero or two. In the case of late disclosure of strong evidence, the majority of the participants made either zero or two within-statement inconsistencies, indicating that the disclosure of evidence evoked divergent strategies (the participants stopped actively trying to convince the officer of their innocence and became silent or they tried harder to change their story into a plausible account).

Table 3

Frequencies of Within-Statement Inconsistencies

Evidence Strength	No. Within-Statement Inconsistencies	Frequency (%)	
		Early Disclosure	Late Disclosure
Weak	0	24 (92%)	7 (28%)
	1	1 (4%)	10 (40%)
	2	1 (4%)	8 (32%)
	3	0 (0%)	0 (0%)
Strong	0	24 (96%)	9 (36%)
	1	0 (0%)	4 (16%)
	2	1 (4%)	12 (48%)
	3	0 (0%)	0 (0%)

Hypothesis testing

Statement-Evidence Inconsistencies. First, a factorial ANOVA was conducted to test for effects of Disclosure Timing (early vs late) and Strength of Evidence (weak vs strong) on Statement-Evidence Inconsistencies. We observed statistically significant main effects for both Disclosure Timing, $F(1, 97) = 50.0, p < .001, \eta_p^2 = .34, 95\%CI [-1.79, -0.93]$, Hedges' $g = -1.36$, and Strength of Evidence, $F(1, 97) = 5.36, p = .02, \eta^2 = .05, 95\%CI [-0.76, 0.03]$, Hedges' $g = -0.37$. These main effects indicated more Statement-Evidence Inconsistencies for those to whom evidence was disclosed late vs those who were presented with the evidence early ($M = 1.94, SD = 0.42$ vs. $M = 0.92, SD = 0.98$) and those who were presented with weak vs strong evidence ($M = 1.59, SD = 0.78$ vs. $M = 1.26, SD = 1.01$). We also observed an interaction effect between Disclosure Timing and Evidence Strength, $F(1, 97) = 4.16, p = .04, \eta_p^2 = .04$. Figure 1 shows a bar chart to illustrate these effects.

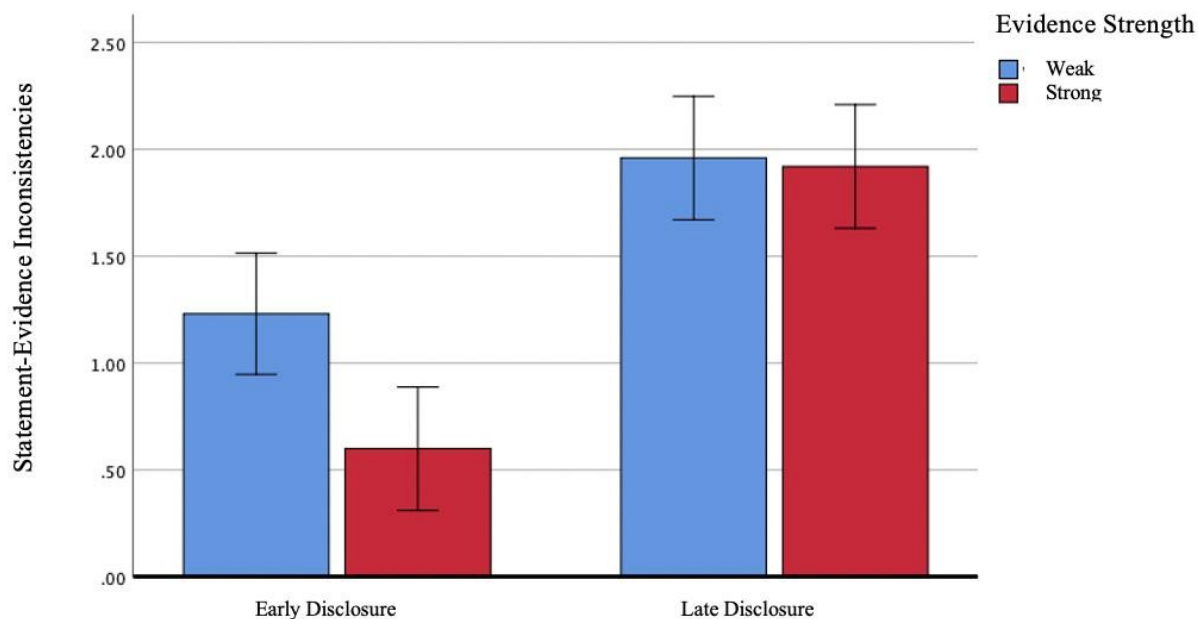


Figure 1

Effects of Disclosure Timing and Evidence Strength on Statement-Evidence Inconsistencies

We followed up this interaction with tests of simple effects. First, an independent-samples t-test was conducted to determine where there was a mean difference in Statement-Evidence Inconsistencies at each of the two levels of Evidence Disclosure. Results show that in the case of Late Disclosure, there was no significant effect of Weak ($M = 1.96$, $SD = 0.45$) vs Strong Evidence ($M = 1.92$, $SD = 0.40$) on the amount of Statement-Evidence Inconsistencies; $t(48) = 0.33$, $p = .74$, 95%CI [-0.65, 0.46], Hedges' $g = -0.09$. In the case of Early Disclosure, there was a significant effect of Weak ($M = 1.23$, $SD = 0.86$) vs Strong Evidence ($M = .60$, $SD = 1.00$) on the number of Statement-Evidence Inconsistencies; $t(49) = 2.42$, $p = .02$, 95%CI[-1.24, -0.11], Hedges' $g = -0.68$. Thus, only in the case of early disclosure does strong evidence produce fewer statement-evidence inconsistencies than weak evidence.

An independent-samples t-test was conducted to determine where there was a mean difference in Statement-Evidence Inconsistencies at each of the two levels of Evidence Strength. Results show that in the case of Weak Evidence, there was a significant effect of Early ($M = 1.23$, $SD = 0.86$) vs Late ($M = 1.96$, $SD = 0.45$) Disclosure on the amount of Statement-Evidence Inconsistencies; $t(49) = -3.75$, $p < .01$, 95%CI[0.47, 1.64], Hedges' $g = 1.05$. In the case of Strong Evidence, there was a significant effect of Early ($M = 0.60$, $SD = 1.00$) vs Late ($M = 1.92$, $SD = 0.40$) Disclosure on the amount of Statement-Evidence Inconsistencies; $t(48) = -6.13$, $p < .01$, 95%CI[1.08, 2.38], Hedges' $g = 1.73$. Thus, in the case

of both weak evidence and strong evidence, late disclosure produced significantly more statement-evidence inconsistencies than early disclosure.

To conclude, disclosing the evidence late produced more statement-evidence inconsistencies than disclosing the evidence early, both when the evidence is weak and strong. Only when evidence was disclosed early did strong evidence produce fewer statement-evidence inconsistencies than weak evidence.

Within-Statement Inconsistencies. A factorial ANOVA was conducted to test for effects of Disclosure Timing (early vs late) and Strength of Evidence (weak vs strong) on Within-Statement Inconsistencies. We observed statistically significant main effects for Disclosure Timing, $F(1, 97) = 53.58, p < .01, \eta^2 = .36, 95\%CI[1.03, 1.91],$ Hedges' $g = 1.47,$ but not for Evidence Strength, $F(1, 97) = .03, p = .87, \eta^2 = .00, 95\%CI[-0.35, 0.43],$ Hedges' $g = 0.04.$ These main effects indicated more Within-Statement Inconsistencies for those to whom evidence was disclosed late vs those who were presented with the evidence early ($M = 1.08, SD = 0.85$ vs. $M = 0.10, SD = 0.41$) and there was no significant difference in Within-Statement Inconsistencies regarding Weak vs Strong Evidence ($M = 0.57, SD = 0.78$ vs. $M = 0.60, SD = 0.88$). We observed no interaction effect between Disclosure Timing and Evidence Strength, $F(1, 97) = .19, p = .67, \eta^2 = .00.$ This indicates that suspects who were presented with weak evidence late ($M = 1.04, SD = 0.79$) and strong evidence late ($M = 1.12, SD = 0.93$) made more within-statement inconsistencies when compared to those who were presented with weak evidence early ($M = 0.12, SD = 0.43$) or those who were presented with strong evidence early ($M = 0.08, SD = 0.40$). Figure 2 shows a bar chart to visualize these findings.

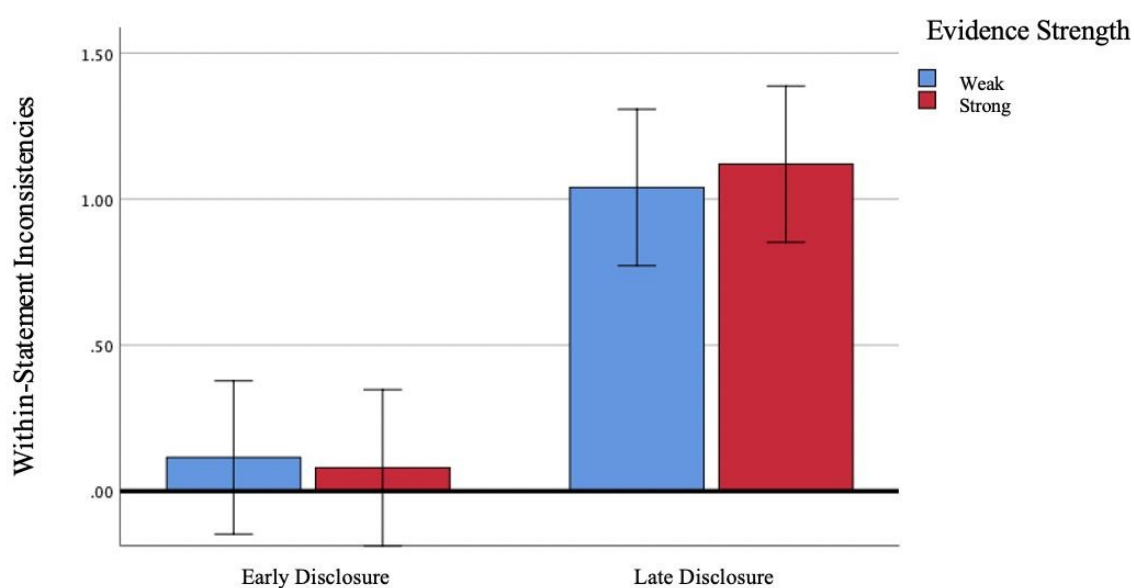


Figure 2

Effects of Disclosure Timing and Evidence Strength on Within-Statement Inconsistencies

Novel Investigative Information. We conducted a factorial ANOVA to test for effects of Disclosure Timing (early vs late) and Evidence Strength (weak vs strong) on the provision of Novel Investigative Information. We observed no statistically significant main effects for either Disclosure Timing, $F(1, 97) = .05, p = .82, \eta_p^2 = .00, 95\%CI[-0.43, 0.35]$, Hedges' $g = -0.04$, or Evidence Strength, $F(1, 97) = .82, p = .37, \eta^2 = .01, 95\%CI[-0.57, 0.21]$, Hedges' $g = -0.18$. These main effects indicated no difference in the disclosure of novel investigative information between those to whom evidence was presented late vs those who were presented with the evidence early ($M = 2.16, SD = 2.05$ vs. $M = 2.25, SD = 2.08$) and there was no significant difference in the disclosure of novel investigative information regarding weak vs strong evidence ($M = 2.39, SD = 2.17$ vs. $M = 2.02, SD = 1.93$). We also observed no interaction effect between Disclosure Timing and Evidence Strength, $F(1, 97) = .21, p = .65, \eta_p^2 = .00$. This indicates there was no significant difference in the amount of novel investigative information being provided by suspects who were presented with weak evidence early ($M = 2.35, SD = 2.45$), strong evidence early ($M = 2.16, SD = 1.65$), weak evidence late ($M = 2.44, SD = 1.89$) and strong evidence late ($M = 1.88, SD = 2.20$). Figure 3 shows a bar chart to visualize these findings.

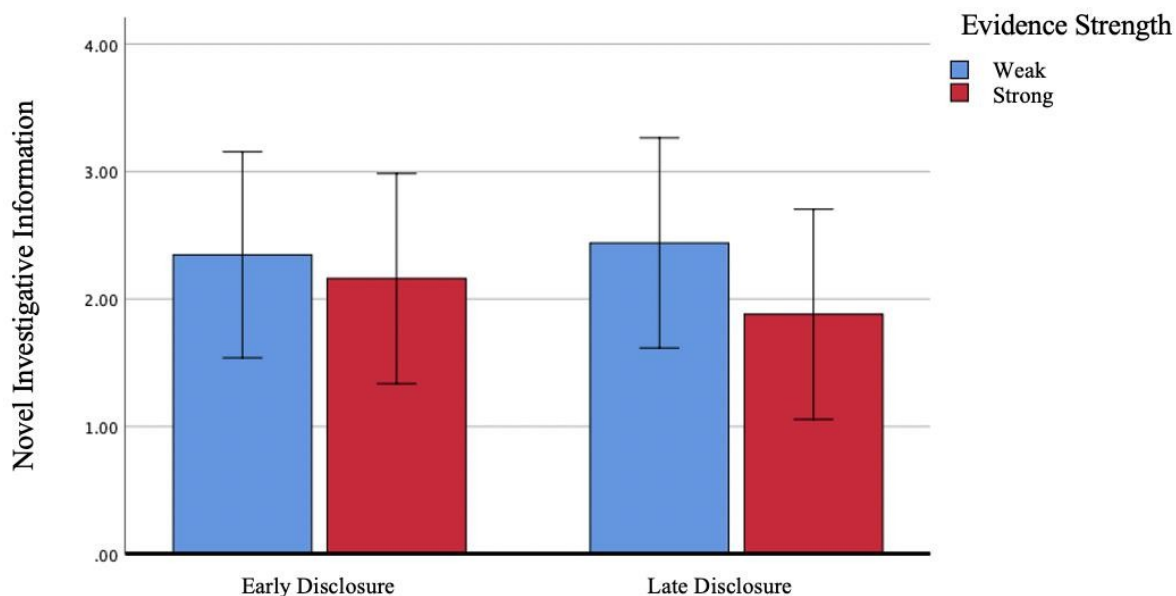


Figure 3

Effects of Disclosure Timing and Evidence Strength on Novel Investigative Information

Rapport. A factorial ANOVA was conducted to test for effects of Disclosure Timing (early vs late) and Strength of Evidence (weak vs strong) on Rapport. We observed no statistically significant main effects for both Disclosure Timing, $F(1, 97) = .27, p = .61, \eta_p^2 = .00, 95\%CI[-0.28, 0.50]$, Hedges' $g = 0.11$, or Evidence Strength, $F(1, 97) = .01, p = .93, \eta_p^2 = .00, 95\%CI[-0.40, 0.38]$, Hedges' $g = -0.01$. These main effects indicated no difference in the perceived rapport between those to whom evidence was presented late vs those who were presented with the evidence early ($M = 3.94, SD = 0.70$ vs. $M = 3.86, SD = 0.78$) and there was no significant difference in the perceived rapport regarding weak vs strong evidence ($M = 3.90, SD = 0.75$ vs. $M = 3.89, SD = 0.73$). We also observed no significant interaction effect between Disclosure Timing and Evidence Strength, $F(1, 97) = 1.67, p = .20, \eta_p^2 = .02$. This indicates there is no significant difference in the perceived rapport for suspects who were presented with weak evidence early ($M = 3.77, SD = 0.76$), strong evidence early ($M = 3.95, SD = 0.81$), weak evidence late ($M = 4.04, SD = 0.74$) and strong evidence late ($M = 3.83, SD = 0.65$). Figure 4 shows a bar chart to visualize these findings.

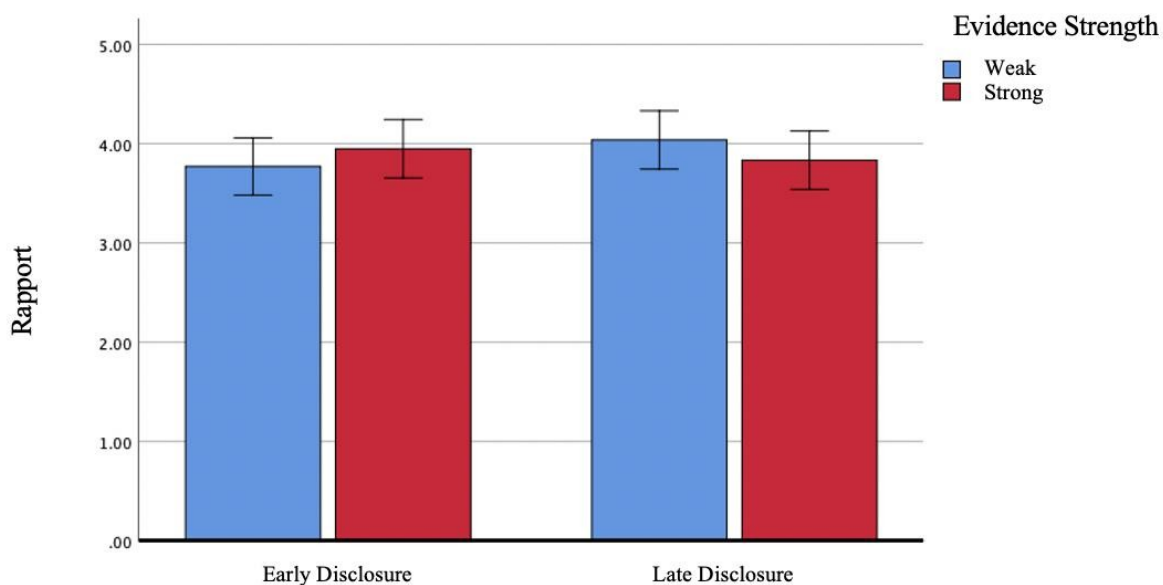


Figure 4

Effects of Disclosure Timing and Evidence Strength on Rapport

Discussion

Key Findings

This study produced several useful findings. Late disclosure produced more statement-evidence inconsistencies than early disclosure. In the case of early disclosure, strong evidence produced fewer statement-evidence inconsistencies than weak evidence. In the case of late

disclosure, there was no difference in statement-evidence inconsistencies between weak and strong evidence. Moreover, late disclosure produced more within-statement inconsistencies than early disclosure. There was no difference between weak and strong evidence in regards to within-statement inconsistencies. In addition, no significant differences in the provision of novel investigative information were found regarding disclosure timing and evidence strength. No effect was found of either disclosure timing or evidence strength on the perceived rapport by the suspect. In regards to the correlations, statement-evidence inconsistencies and within-statement inconsistencies were positively correlated, so the more statement-evidence inconsistencies a suspect made, the more within-statement inconsistencies they produced. Statement-evidence inconsistencies and novel investigative information were negatively correlated, so when more statement-evidence inconsistencies were made by a suspect, less novel investigative information was provided. Within-statement inconsistencies and novel investigative information were positively correlated, so the more within-statement inconsistencies, the more novel investigative information was provided. Rapport and novel investigative information were not significantly correlated.

Statement-Evidence Inconsistencies

It was hypothesized that early disclosure would lead to fewer statement-evidence inconsistencies than late disclosure. This hypothesis has been supported. Early disclosure provides the suspects with an opportunity to create a plausible account that covers each piece of evidence (Oleszkiewicz & Watson, 2020), which is exactly what occurred in this research. Whereas Oleszkiewicz and Watson (2020) showed a medium-high effect size when comparing the number of statement-evidence inconsistencies between early and late disclosure in their meta-analysis, our research found a large effect size, indicating the finding is likely to have practical significance. The suspects in the late disclosure conditions did produce statements which contradicted the evidence (e.g., “I did not touch anything that does not belong to me”) but almost exclusively decided not to mention anything related to or accounting for the pieces of evidence until presented with the evidence. In the case of late disclosure, the suspects’ sense of information control is very low, resulting in suspects avoiding any potentially incriminating topic. In anticipation of any potential evidence being presented, suspects tend to mention as little as possible information which could connect them to the crime in any way. These findings are in line with what Strömwall, Hartwig and Granhag (2006) stated, namely that liars tend to keep their story simple when asked to recall their memories of the time of the crime and the findings of DePaulo et al. (2003) who stated liars tend to provide fewer details. Hartwig et al. (2005) stated that the liar does not want to

contradict any possible knowledge the interviewer has, and they might even believe there is no evidence, leading them to leave out any information that could potentially link them to the crime scene. Furthermore, Granhag et al. (2013) stated that suspects unaware of the evidence against them are likely to apply a restricting strategy in order to circumvent any topic that might deem them suspicious. This could explain why disclosing the evidence late creates more statement-evidence inconsistencies as the low sense of information control leads to the suspect choosing an avoiding strategy. Disclosing the evidence early did not have this effect as the suspects are immediately presented with every piece of evidence available, increasing their sense of information control and in turn making the suspects more likely to choose for escape strategies, attempting to explain away the evidence. Thus, disclosing evidence late appears to lower the suspects' sense of information control, lead to more avoidant strategies being used by suspects, resulting in more statement-evidence inconsistencies than early disclosure.

Furthermore, as expected, it was found that strong evidence produced fewer statement-evidence inconsistencies than weak evidence when evidence was presented early. As Brimbal and Luke (2019) stated, suspects make statements more in line with the evidence when the evidence appears to be more incriminating. In this study, strong evidence tied the suspects to the crime more clearly, which left the suspects with fewer opportunities to appear uninvolved in the crime and therefore led to the suspects producing more plausible accounts in attempt to explain away the strong evidence rather than distancing themselves from the crime scene. In contrast, weak evidence might have presented the suspects with an opportunity to deem the presented evidence as highly circumstantial, insignificant, or simply mistaken and therefore led them to either disregard the topic entirely or pretend to be clueless as to why they are suspected. In regards to these findings, it appears wise, when the aim is catching a suspect in a lie, to disclose stronger evidence late rather than early as especially in the case of strong evidence being disclosed early, suspects appear to try their best to plausibly embed the evidence into their full account, making it more difficult to identify statements as being untrue.

A factor which made obtaining statement-evidence inconsistencies more difficult, was that one of the pieces of evidence (being logged onto a library computer) was hardly ever denied, in both early and late disclosure conditions. Based on the research of Hartwig et al. (2005), the suspects were told that they were brought in for questioning because the police know they were 'in the area' on the day of the crime. It might have proven wise, in our case, to have used a piece of evidence more specific to the crime as this might have been a reason

for the suspects to hardly ever deny being at the library. In a sense, we already took care of the information control for the suspects regarding this piece of evidence prior to the interview. Therefore, the suspects felt no need to deny being near the crime scene as they might have suspected that the police were already aware of this. This led to hardly anyone making three within-statement inconsistencies, resulting in two being the maximum amount in almost every case. Moreover, for future research and in practice, it could prove helpful to keep in mind that the pieces of evidence should not consist of extremely plausible matters that are hardly regarded as incriminating in any way (e.g., being somewhere they often go) but rather tie them to the crime slightly (e.g., spending time in the physics section of the library whilst being a communication student). An interesting factor which might prove helpful to add to this research is the Evidence Framing Matrix (Granhag, 2010). This matrix shows how a piece of evidence can be framed. The matrix has two dimensions, strength of the source (weak vs strong) and degree of precision (low vs high). As shown by Granhag et al. (2013), disclosing a piece of evidence incrementally (moving from a weak source and low precision to a strong source and high precision) allows lying suspects to play out their strategies. In this research, the strong evidence had a stronger source than the weak evidence, but was not necessarily higher in precision. For example, when the weak evidence consisted of an eye-witness noticing the suspect checking the victim's bag, the strong evidence consisted of CCTV footage of the suspect performing the same act. It might be helpful to make the strong evidence higher than the weak evidence in both dimensions of the Evidence Framing Matrix.

Within-Statement Inconsistencies

It was hypothesized that early disclosure would lead to fewer within-statement inconsistencies than late disclosure. This hypothesis was also supported. As Granhag, et al. (2013) stated, once the suspect is aware of the evidence, they can attempt to adapt their story to find a way to explain away the evidence. In the case of early disclosure, hardly any within-statement inconsistencies were made as their untruthful account had already been constructed. In the case of late disclosure, more within-statement inconsistencies were made as the suspects adjusted their story once presented with the evidence after initially lying about or avoiding any information related to the pieces of evidence. Before the evidence was presented, the suspects' sense of information control was very low and therefore they often adopted avoiding strategies. Once the evidence was presented, the information control increased and the suspects switched from an avoiding to a denial strategy, resulting in within-statement inconsistencies.

Furthermore, it was expected that evidence strength would make no difference in within-statement inconsistencies in the case of early disclosure, but that strong evidence would lead to more within-statement inconsistencies than weak evidence in the case of late disclosure. Actually, it was found that evidence strength did not have any significant effect on the number of within-statement inconsistencies being made regardless of disclosure timing. This is likely due to the fact that most statement-evidence inconsistencies consisted of omissions of any evidence-related information which they did provide once presented with the evidence. Thus, contrary to early disclosure, the suspects explained away both weak and strong evidence when presented with it late. As most initial statement-evidence inconsistencies consisted of omissions, most within-statement inconsistencies were statements which were later added to the suspects' initial accounts in attempt to incorporate the evidence into their stories. Whereas in early disclosure suspects were comfortable disregarding weaker evidence using statements such as 'I was just minding my own business', in late disclosure they often made statements such as 'Oh yeah, I might have touched his bag I guess, I don't know', in attempt to account for any discrepancies between the story they had already created and the newly presented evidence. This could be because in the case of late disclosure, the information control is very low until the evidence is presented, resulting in avoiding strategies switching into denial strategies once the evidence is finally disclosed.

A possible explanation could be that in the case of early disclosure, the evidence is already there, increasing the sense of information control, making it feel safer to disregard the evidence once the suspect realizes it is not very strong. In the case of late disclosure, the suspects are surprised with the evidence after providing their full account. It is possible that late disclosure makes weak evidence feel stronger than it is. Suspects then are not certain that their previous story is fully plausible anymore, and therefore want to play it safe and incorporate the presented evidence into their initial story. Moreover, in the case of early disclosure, the suspects can immediately try and predict the course of the interview as all evidence is immediately available, resulting in a high sense of information control. This way, suspects can go straight into their denial strategies and start building a coherent story including the evidence, or sometimes in the case of weak evidence, decide to disregard it by simply making statements such as 'I don't know anything about that'. In contrast, late disclosure leads to a low sense of information control at the onset of the interview as they are asked to provide their account without any sense of what the interviewer holds against them. Therefore, they tend to begin by using avoidant strategies, most often resulting in the suspects merely mentioning they were job searching in the library and nothing else. Once the evidence

is presented, the information control finally increases and the suspect can change their decision on how to act, resulting in the fabrication of a plausible account explaining away both weak and strong evidence seemingly being a more optimal behavior compared to their initial use of avoidance.

In the late disclosure of strong evidence condition, most suspects made either zero or two within-statement inconsistencies, which indicated that disclosing strong evidence late either made the suspect more withholding or made them try harder to adjust their story to match the evidence. However, for most suspects that made two within-statement inconsistencies, both inconsistencies came from a single statement to account for the initial two statement-evidence inconsistencies (e.g., ‘I might have touched and looked into the bag when he dropped something and I put it back’). This could mean that the change in behavior might actually be smaller than it appears to be in the analyses as many suspects appear to make two relevant changes to their initial account but actually only made one statement in attempt to explain away the evidence, leading to the experimental effects perhaps exaggerating the effect sizes that practitioners might expect to find. Even seemingly large experimental effects can have distributions with a lot of overlap (Satchell, 2019), which might make it difficult to distinguish truth-tellers from liars using within-statement inconsistencies as a cue in practice, even if it can be done in an experimental setting.

As stated by Cialdini (2009), once one has taken a particular stand, they tend to respond to pressures by trying to justify their previous actions and behaving in ways consistent with their initial commitment, which could be part of why many suspects only made one statement to account for the evidence as their initial choice of strategy was held back and avoidant and they might have wanted to appear consistent throughout the interview.

Again, incrementally disclosing the pieces of evidence using the Evidence Framing Matrix (Granhag 2010), might have led to the suspects playing out their counter-interrogation strategies (Granhag et al., 2013), trying to explain away the gradually more incriminating pieces of evidence one by one, rather than attempting to manufacture a short statement attempting to cover for all the available evidence. Gradually disclosing the evidence using the Evidence Framing Matrix may result in a relatively higher number of within-statement inconsistencies (Granhag et al., 2013), potentially creating a clearer difference between the different conditions. This might prove useful to keep in mind for future research.

Novel Investigative Information

It was investigated whether disclosure timing and evidence strength would have an effect on novel investigative information being provided by the suspects. This study found no

significant effects of either disclosure timing or evidence strength on the number of pieces of novel investigative information being shared. The Strategic Use of Evidence framework was found to be successful at detecting a suspect in a lie, as it does influence the number of statement-evidence and within-statement inconsistencies. However, it was not found to have any significant influence on the elicitation of novel investigative information. As Tekin et al. (2016) stated, one of the main goals in any suspect interview is the recovery of important crime-relevant information. This is incredibly important as any piece of related information can have an immense effect on a case. The SUE appears to be effective in detecting deception but it might prove wise to investigate ways to improve its worth regarding the elicitation of information as detecting lies is useful, yet hardly covers the main objectives of suspect interviews. Perhaps gathering new information relevant to the crime is not the role of evidence disclosure. It might prove efficient to investigate different skills to elicit a full, detailed account from suspects and use evidence disclosure tactics to test those accounts and try to find any discrepancies between suspects' statements and the available pieces of evidence.

Every statement that could in any way shine a light on the investigation was coded as a piece of novel investigative information. However, many suspects gave elaborate statements regarding their thoughts and feelings during the time of the crime. Assessing the veracity of these statements is impossible and therefore these explanations were not coded as novel investigative information. The resulted data makes it appear as if even the most talkative suspects were relatively held back. Thus, a lot of the speech used by the participants was not targeted at directly explaining away the evidence, but at otherwise influencing the interviewer to empathize and change the way they are perceived. This aligns with what Watson, Luther, Taylor, Jackson and Alison (2018) define as relational techniques. These techniques attempt to influence the way the suspect is perceived by the interviewer rather than trying to account for any evidence. A narrow focus on novel investigative information and statements that contradict the evidence therefore fails to account for an awful lot of what suspects actually appear to be doing as part of their counter-interrogation strategies. Interviews are, after all, conducted by humans and human decision making is influenced by an incredible number of factors. Therefore, perhaps it would be wise to take a broader look at how decisions are made by suspects based on *which* information is provided by the suspect rather than merely look at the *number* of instances where specific types of information are provided by the suspect.

The correlations between novel investigative information and statement-evidence and within-statement inconsistencies showed that when a suspect produced more statement-

evidence inconsistencies, they provided less novel investigative information. This could be due to most statement-evidence inconsistencies being omissions resulting from avoiding strategies taken on due to a low sense of information control, rather than the provision of false information, resulting in less novel investigative information being provided as statement-evidence inconsistencies increased. What might have been wise could be to follow up on the statement-evidence inconsistencies. As stated by May, Granhag & Tekin (2017), evidence can be used to keep a suspect actively involved during the interview. This takes more than merely disclosing the evidence, but also involves eliciting *and* presenting statement-evidence inconsistencies. This could improve the atmosphere of the interview, influence the suspects to overestimate the knowledge the interviewer holds and resort to more forthcoming strategies (May, Granhag & Tekin, 2017), potentially leading to more novel investigative information being shared by the suspect. Tekin et al. (2016) found that when the suspects were asked to explain the inconsistencies once being confronted with them, more novel investigative information was provided by the suspects than when they were merely confronted with the inconsistencies. Thus, it could prove valuable in regards to eliciting more novel investigative information to immediately ask for an explanation after obtaining an inconsistency rather than merely confronting the suspect with the evidence.

Furthermore, the correlation between novel investigative information and within-statement inconsistencies showed that when a suspect produced more within-statement inconsistencies, they provided more novel investigative information. This could be because within-statement inconsistencies are signs of the suspects attempting to adjust their story to match the evidence. After initially starting off using avoiding strategies due to a low sense of information control, the suspects started explaining away the evidence which resulted in more information relevant to the crime being provided.

Potentially, the combined relationships could have influenced this study's finding on the effect of disclosure timing and evidence strength on the provision of novel investigative information. There was no effect found and that might have been caused by the effects of statement-evidence and within-statement inconsistencies cancelling each other out. Some suspects were silent, creating more statement-evidence inconsistencies and some were forthcoming, generating within-statement inconsistencies.

There were some ways that the study design might have inhibited the possibility to elicit sufficient details to identify differences. Asking more questions in attempt to elicit more statements might have improved the outcomes regarding the novel investigative information aspect of this research. In this study, we asked the suspect to tell us exactly what they were

doing during the time of the crime and afterwards, even if the suspect only gave a one-sentence answer, we asked two questions about the stolen Air pods. We asked the suspects whether they had seen or touched the Air pods, to which most suspects simply answered 'No'. Had we asked questions more in line with the evidence (e.g., 'Did you touch the victim's bag?' or 'Did you look into the victim's bag?'), the suspects might have provided us with more information or at least with more elaborate answers as these questions are more easily elaborated on or explained away than questions directly concerning the stolen object. Furthermore, more evidence specific questions would have been wise in order to let each suspect at least address each of the pieces of evidence (Hartwig et al., 2005) rather than asking them questions not fully related to the pieces of evidence, allowing the suspects to omit mentioning the pieces of evidence, to which answering 'Yes' would have been highly incriminating. Once the suspects answered, even if they only said 'No', we continued the interview as to not deviate from the scripts. Had we asked more follow-up questions, we might have gotten more statements and the process might have felt more like a genuine interview. The interviews were very short as we could not deviate from the scripts in order to prevent bias. Many participants have stated that they had a lot more ideas and strategies in mind and that asking a few more questions would have severely changed their arguments and strategies. Therefore, it would be wise to ask several more questions directly tackling the available evidence, making it more difficult for the suspects to simply omit the evidence like they did when asked directly about the stolen Air pods.

Furthermore, there are two prominent paradigms which are used in research on evidence disclosure (Oleszkiewicz & Watson, 2020). 'Paradigm A', in which crimes like simple theft are modelled and the evidence suggests that the suspect is guilty but can also be accounted for otherwise and 'Paradigm B' in which the crime consists of multiple tasks across various phases, and the evidence accounts for several, yet not all tasks and phases executed by the suspect prior to the interview (Oleszkiewicz & Watson, 2020). 'Paradigm A' has mainly been used when examining the effect of late disclosure on statement-evidence inconsistencies (Hartwig, Granhag & Luke, 2014). It might have been interesting and more effective in regards to novel investigative information to make use of 'Paradigm B', Had we made use of 'Paradigm B' in this research, suspects would have had to account for pieces of evidence obtained at different times and places, potentially eliciting more information being shared by the suspects. Moreover, in 'Paradigm B' the researcher is unaware of certain elaborate tasks the suspect performed and the scenario is more detailed, which might provide more

opportunities to elicit more information relevant to the crime which was initially genuinely unknown by the interviewer.

It is highly important to keep investigating which factors influence the elicitation of novel investigative information. As disclosure timing, evidence strength and rapport were not found to have a significant impact on information, and gathering information relevant to the crime is very critical, future research focused on factors aiming to improve the elicitation of novel investigative information could prove highly valuable.

Rapport

Neither disclosure timing nor evidence strength was found to have an effect on the perceived rapport by the suspect between interviewer and interviewee. Rapport does not appear to differ depending on when or which evidence is presented. It was investigated whether late disclosure would damage rapport as holding back the evidence could affect the way the suspect perceives their relationship with the interviewer. In this study, this was not found to have any impact. Although adept at detecting lies, the potential threat of the SUE inhibiting the perceived rapport was not found to exist in this research. In principle, this appears to be a positive thing as the SUE did not seem to damage the relationship between interviewer and interviewee.

Furthermore, we did not observe a relationship between rapport and the provision of novel investigative information. It was expected that more rapport would lead to more novel investigative information being provided by the suspect. However, no effect was found. There are several potential explanations for this. Because only a limited amount of people signed up through the university's website, we had to resort to convenience sampling. A large proportion of the participants were acquainted with one of the researchers. A limitation regarding this sample could be that because the participants felt somewhat close to one of the researchers, they felt more comfortable or more eager to give positive answers regarding rapport. This can be observed in the rapport scale being slightly negatively skewed, indicating slight ceiling effects. Moreover, both researchers who conducted the interviews were female students who, according to various participants, seemed warm and welcoming. This could have led to a relatively high score on rapport as even though the interview strategy might not have been optimal to the suspect, they still regarded the interviewer relatively positively. Moreover, due to the current COVID-19 pandemic, it was not possible to have in-person interviews but it is important to note that some participants have stated that an in-person interview might have felt more realistic. Several participants have stated that they felt rather comfortable sitting in their own rooms, being interviewed online and that a in-person

interview would probably have been perceived as more threatening and serious. With participants feeling like the interview is not very threatening or serious, the potential effects on rapport might have been less (in this case, not) significant than they would have been during an in-person interview. Moreover, as stated by Geiselman et al. (1984), feeling more relaxed whilst being interviewed enhances the interviewees' cooperation and evokes a larger effort in suspects to remember details. Therefore, interviewing the suspects in person might have decreased the sense of comfort and this might have made a difference in regards to the elicitation of novel investigative information. Furthermore, as relying on a vignette and being interviewed in your own home seems to elicit a feeling of comfort that in turn might have had a positive effect regarding the perceived rapport, something that might have improved the research would have been to actually let the participants 'steal' the Air pods. This way, they have a very clear idea about the actual scenario and can rely on actual memories rather than on a vignette. It was found that when the stakes are high, lying suspects feel a higher pressure to appear credible (Hartwig, Granhag & Luke, 2014). The participants might have felt more pressure had they actually committed the 'crime', which might have caused a change in perceived rapport. Again, due to the pandemic, this was not an option this time, but can be kept in mind for future research.

This is an interesting notion that could be taken into account in police interviews in regards to creating rapport. It might be the case that creating a more comfortable setting reduces the coldness associated with intimidating interviewing rooms, making it easier to create rapport. Although no relationship between rapport and the disclosure of novel investigative information was found in this study, rapport is described as the 'heart of the interview' (St. Yves, 2009, p. 104) and creating and maintaining rapport is fundamental in an investigative interview (Alison et al., 2013). Rapport could still have an effect on novel investigate information being provided despite it not being apparent in this research. In the past, rapport has been shown to be able to elicit beneficial outcomes among which the gathering of new information (Gabbert et al., 2020). Therefore, it could prove useful to investigate more on the subject as to find out whether it truly is rapport that influences information gathering or if there are other factors at play that could explain as to why in this study, no relationship was found.

Various participants brought to our attention that they felt the interviews were not long enough for them to truly be able to fill out the rapport questionnaire as certain of their answers as they had liked to be. Again, therefore, it might be wise to add several more questions in attempt to draw out more statements to make sure that the suspects share everything they are

willing to and to elongate the interviews a little, perhaps eliciting more of an effect on the perceived rapport by the suspects. Because the interviews were so short, the estimates of rapport may be slightly imprecise, making it more challenging to detect any effect rapport might have had.

Conclusion

In conclusion, this research has produced several notable findings. Late disclosure did lead to more statement-evidence and within-statement inconsistencies than early disclosure without affecting rapport, supporting the notion made by Granhag and Hartwig (2015) that the Strategic Use of Evidence can be of aid when aiming to detect lies by making use of inconsistencies. In the case of early disclosure, strong evidence produced fewer statement-evidence inconsistencies than weak evidence. Thus, it is important to be especially cautious of disclosing strong evidence early as this appears to create an opportunity for suspects to provide a plausible account for the evidence. No effects of disclosure timing, evidence strength or rapport on novel investigative information were observed. Therefore, it might be the case that improving the elicitation of novel investigative information is not a job for the Strategic Use of Evidence and future research might be wise to focus on developing other tactics in order to elicit a detailed account after which the veracity of the suspects' statements can be challenged by using the Strategic Use of Evidence, as it has again been supported that the Strategic Use of Evidence is successful at lie detection.

References

- Alison, L. J., Alison, E., Noone, G., Elntib, S., & Christiansen, P. (2013). Why tough tactics fail and rapport gets results: Observing Rapport-Based Interpersonal Techniques (ORBIT) to generate useful information from terrorists. *Psychology, Public Policy, and Law*, *19*, 411–431. doi:10.1037/a0034564
- Bond, C. F. J., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality and Social Psychology Review: An Official Journal of the Society for Personality and Social Psychology, Inc*, *10*(3), 214–34. doi:10.1207/s15327957pspr1003_2
- Brimbal, L., & Luke, T. J. (2019). Deconstructing the evidence: The effects of strength and reliability of evidence on suspect behavior and counter-interrogation tactics. doi: 10.31234/osf.io/vrs7z
- Carlson, N.R., Buskist, W., & Martin, G.N. (2000). *Psychology: The science of behaviour*. Harlow, UK: Allyn & Bacon.
- Cialdini, R.B. (2009). *Influence: Science and Practice*. Pearson Education Inc.
- Clemens, F., Knieps, M., & Tekin, S. (2020). Untapped potential? a survey study with german police officers into suspect interviewing practices and the strategic use of evidence. *Journal of Forensic Psychology Research and Practice*, *20*(1), 53–79. doi:10.1080/24732850.2019.1684123
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, *129*, 74–118.
- Duke, M. C., Wood, J. M., Bollin, B., LaBianca, J., & Scullin, M. (2018). Development of the rapport scales for investigative interviews and interrogations (rs3i), interviewee version. *Psychology, Public Policy, and Law*, *24*(1), 64–79. doi:10.1037/law0000147
- Fawcett, H. (2015). An investigation into deceptive alibi witness testimony. doi:10.13140/RG.2.1.1401.1046

- Gabbert, F., Wright, G., Hope, L., Luther, K., Ng, M., & Oxburgh, G. (2020). Exploring the use of rapport in professional information-gathering contexts by systematically mapping the evidence base. *Applied Cognitive Psychology*, (2020). doi:10.1002/acp.3762
- Geiselman, E., Fisher, R.P., Firstenberg, I., Hutton, L.A., Sullivan, S.J, Avetissian, I.V., & Prosk, A.L. (1984). Enhancement of eyewitness memory: an empirical evaluation of the cognitive interview. *Journal of Police Science and Administration*, 12(1), 74-80.
- Granhag, P. A. (2010). *The Strategic Use of Evidence (SUE) technique: A scientific perspective*. High Value Detainee Interrogation Group (HIG, FBI). HIG Research Symposium: Interrogation in the European Union, Washington, DC.
- Granhag, P.A., Andersson, L.O., Strömwall, L.A., & Hartwig, M. (2004). Imprisoned knowledge: Criminals' beliefs about deception. *Legal and Criminological Psychology*, 9, 103-119.
- Granhag, P. A., Clemens, F., & Strömwall, L. A. (2009). The usual and the unusual suspects: Level of suspicion and counter-interrogation tactics. *Journal of Investigative Psychology and Offender Profiling*, 6, 129–137. doi:10.1002/jip.101
- Granhag, P. A., & Hartwig, M. (2008). A new theoretical perspective on deception detection: On the psychology of instrumental mind-reading. *Psychology, Crime & Law*, 14, 189-200. doi:10.1080/10683160701645181
- Granhag, P. A., & Hartwig, M. (2015). The Strategic Use of Evidence (SUE) technique: A conceptual overview. In P. A. Granhag, A. Vrij, & B. Verschuere (Eds.), *Deception detection: Current challenges and cognitive approaches* (pp. 231-251). Chichester, UK: Wiley.
- Granhag, P. A., Strömwall, L. A., Willén, R. M., & Hartwig, M. (2013). Eliciting cues to deception by tactical disclosure of evidence: The first test of the Evidence Framing Matrix. *Legal and Criminological Psychology*, 18, 341–355. doi:10.1111/j.2044-8333.2012.02047.x

- Gudjonsson, G. H. (2007). *Investigative interviewing*. In T. Newburn, T. Williamson, & A. Wright (Eds.), *Handbook of criminal investigation* (pp. 466–492). Devon, UK: Willan.
- Hartwig, M., Granhag, P. A., & Vrij, A. (2005). Police interrogation from a social psychology perspective. *Policing and Society, 15*(4), 379–399.
- Hartwig, M., Granhag, P.A., Strömwall, L.A. & Vrij, A. (2005). Detecting deception via strategic disclosure of evidence. *Law and Human Behavior, 29*(4), 469–484.
doi:10.1007/s10979-005-5521-x
- Hartwig, M., Granhag, P.A., Strömwall, L.A., & Kronkvist, O. (2006). Strategic use of evidence during police interviews: when training to detect deception works. *Law and Human Behavior, 30*(5), 603-619.
- Hartwig, M., Granhag, P.A., & Strömwall, L.A. (2007). Guilty and innocent suspects' strategies during police interrogations. *Psychology, Crime & Law, 13*(2), 213–227.
doi:10.1080/10683160600750264
- Hartwig, M., Granhag, P. & Luke, T. (2014). Strategic Use of Evidence During Investigative Interviews: The State of the Science. *Credibility Assessment: Scientific Research and Applications*. 1-36. doi:10.1016/B978-0-12-394433-7.00001-4
- Hedges, L.V., & Olkin, I. (1985). *Statistical methods for meta-analysis*. Orlando, FL: Academic Press.
- Holmberg, U., & Christianson, S. A. (2002). Murderers' and sexual offenders' experiences of police interviews and their inclination to admit or deny crimes. *Behavioral Sciences & the Law, 20*(1-2), 31–45.
- Kassin, S. M., & Fong, C. T. (1999). “I’m innocent!”: Effects of training on judgments of truth and deception in the interrogation room. *Law and Human Behavior, 23*, 499–516

- Kassin, S., Meissner, C., & Norwick, R. (2005). "I'd Know a False Confession if I Saw One": A Comparative Study of College Students and Police Investigators. *Law and human behavior*, 29, 211-27. doi:10.1007/s10979-005-2416-9
- May, L., Granhag, P. A., & Tekin, S. (2017). Interviewing suspects in denial: on how different evidence disclosure modes affect the elicitation of new critical information. *Frontiers in Psychology*, 8, 1154–1154. doi:10.3389/fpsyg.2017.01154
- Moston, S., Stephenson, G.M., & Williamson, T.M. (1992). The effects of case characteristics on suspect behaviour during police questioning. *British Journal of Criminology*, 32, 23–40.
- Oleszkiewicz, S., Granhag, P. A., & Montecinos, S. C. (2014). The Scharff-technique: Eliciting intelligence from human sources. *Law and Human Behavior*, 38, 478 – 489. doi:10.1037/lhb0000085
- Oleszkiewicz, S., & Watson, S. J. (2020). A meta-analytic review of the timing for disclosing evidence when interviewing suspects. *Applied Cognitive Psychology*, 35(2), 342-359. doi:10.1002/acp.3767
- Sakrisvold, M. L., Granhag P.A., & Giolla, E.M. (2017). Partners under pressure: examining the consistency of true and false alibi statements. *Behavioral Sciences & the Law*, 35(1), 75–90. doi:10.1002/bsl.2275
- Satchell, L. (2019, July 16). Discriminability in deception detection is not d: Reporting the Overlap Coefficient for practitioner-accessible results. doi:10.31234/osf.io/z4m2c
- St. Yves, M. (2009). Police interrogation in Canada: From the quest for confession to the search for the truth. In T. Williamson, B. Milne, & S. P. Savage (Eds.), *International developments in investigative interviewing* (pp.92–110). Devon, UK: Willan Publishing.

- Strömwall, L. A., Hartwig, M., & Granhag, P. A. (2006). To act truthfully: Nonverbal behaviour and strategies during a police interrogation. *Psychology, Crime & Law, 12*(2), 207–219. doi:10.1080/10683160512331331328
- Tekin, S., Granhag, P. A., Strömwall, L., Giolla, E. M., Vrij, A., & Hartwig, M. (2015). Interviewing strategically to elicit admissions from guilty suspects. *Law and Human Behavior, 39*, 244-252.
- Tekin, S., Granhag, P. A., Strömwall, L. A., & Vrij, A. (2016). How to make perpetrators in denial disclose more information about their crimes. *Psychology, Crime & Law, 22*, 561-580.
- Vallano, J. P., Evans, J. R., Schreiber Compo, N., & Kieckhaefer, J. M. (2015). Rapport-building during witness and suspect interviews: a survey of law enforcement. *Applied Cognitive Psychology, 29*(3), 369–380. doi:10.1002/acp.3115
- Walsh, D., & Bull, R. (2015). Interviewing suspects: Examining the association between skills, questioning, evidence disclosure, and interview outcomes. *Psychology, Crime & Law, 21*, 661–680. doi:10.1080/1068316X.2015.1028544
- Watson, S., Luther, K., Taylor, P. J., Jackson, J., & Alison, L. (2018). Controlling the interview: The influencing techniques of suspects of control and coercion. *International Investigative Interviewing Research Group (iIRG)*. Porto, Portugal.
- Wells, G. L., Small, M., Penrod, S., Malpass, R. S., Fulero, S. M., & Brimacombe, C. A. E. (1998). Eyewitness identification procedures: Recommendations for lineups and photospreads. *Law and Human Behavior, 22*, 603–647. doi:10.1023/a:1025750605807

Appendix I: instruction sheet

We request you read the following scenario again and imagine that you are the thief in order to prepare for the interview. Take all the time you need to prepare.

Yesterday you were in the library of the local university. You are short on money and were browsing through job offers on a library computer. Next to you, a young man was seated. He was wearing a white Gucci shirt and blue jeans. You thought he looked very rich and very arrogant. He spilled some of his coffee which stained a piece of paper you were using to write drafts for your application letters. He did not apologize and only cleaned the coffee off his own table.

When the man left to go to the bathroom ten minutes later, you noticed that his bag was open. You sneakily moved your chair to the man's table and went through his belongings. You noticed a pair of new, still sealed Air pods in a small pocket of the bag. You were not sure whether to take them or not. After a moment of consideration, you think to yourself: 'he is rich, he ruined my notes, I really need some money; I am taking his Air pods'. There are a few other people sitting close to you. A girl is seated at the table across from you and a man is seated 3 tables to your right. You wait until you are sure they are not looking at you and take the Air pods from the bag.

After taking his Air pods, you moved back to your table. You decided to stay a while longer in order not to draw any attention to yourself. After another 30 minutes you left the library and went straight to a nearby store. You claimed you bought Air pods there a while ago and just got another pair for your birthday and ask if you can return them for money. The store offered you a €100,- voucher. You accepted the voucher and went home. Today you received a call from the local police station. You are being suspected of having stolen someone's Air pods and will now be interrogated.

We ask you to try and imagine you are the thief. The investigator knows you were in the area of the crime on the day it happened. The interrogator does not know whether you are guilty or not. Please, make your best attempt to convince the interrogating officer that you are innocent. Do whatever you think works best and try to imagine how you would actually act in this situation. If, during the interview, you feel like it will be impossible to convince the officer of your innocence, try and minimize the punishment by explaining and justifying what you've

done. However, only resort to this when you are truly convinced that it is impossible to convince the investigator of your innocence.

Appendix II: Interview Scripts

Early disclosure, weak evidence

Researcher I: Welcome, thank you very much for your participation in our research. As you have read in the instruction sheet, we ask you to play the role of a guilty suspect in a police interview. We would like to ask you to try your best to convince the officer of your innocence. Please try to get into character as best as you can. Before we start the actual interview, we would like to make sure that you agree to being recorded and that you are okay with the obtained data being used in our analyses. Furthermore, we would like to make clear that your participation is completely voluntary and that you are free to leave any time you want without having to explain yourself. Do you agree with these points?

Perfect, then I wish you the best of luck during the interview and I will come back after the interview to ask you a few closing questions.

Researcher II: Good morning/afternoon/evening. You do not have to say anything. But it may harm your defense if you do not mention when questioned something which you later rely on in court. Anything you do say may be given in evidence. As you have been informed, you are suspected of having stolen Air pods in the library yesterday at 2pm.

Do you confess to having committed this crime?

We have some evidence against you. You were logged into a computer at the library during the time of the crime. We also found your fingerprints on the victim's table. The receptionist told us that she saw someone who matches your description looking into the victim's bag. Please tell us exactly what you were doing during the time of the crime.

Have you been in the library yesterday at 2 in the afternoon?

Did you see the Air pods?

Did you touch the Air pods?

Do you confess to stealing the Air pods?

Researcher I: Hello again! How was the interview?

Lastly, we would like to ask you to fill out a short questionnaire with some demographic questions. After that, you're all done! I'll be available in case you have any questions.

Early disclosure, strong evidence

Researcher I: Welcome, thank you very much for your participation in our research. As you have read in the instruction sheet, we ask you to play the role of a guilty suspect in a police interview. We would like to ask you to try your best to convince the officer of your innocence. Please try to get into character as best as you can. Before we start the actual interview, we would like to make sure that you agree to being recorded and that you are okay with the obtained data being used in our analyses. Furthermore, we would like to make clear that your participation is completely voluntary and that you are free to leave any time you want without having to explain yourself. Do you agree with these points?

Perfect, then I wish you the best of luck during the interview and I will come back after the interview to ask you a few closing questions.

Researcher II: Good morning/afternoon/evening. You do not have to say anything. But it may harm your defense if you do not mention when questioned something which you later rely on in court. Anything you do say may be given in evidence. As you have been informed, you are suspected of having stolen Air pods in the library yesterday at 2pm.

Do you confess to having committed this crime?

We have some evidence against you. You were logged into the computer next to the computer of the victim at the library during the time of the crime. We also found your fingerprints on the victim's bag. We have CCTV footage of you looking into the victim's bag. Please tell us exactly what you were doing during the time of the crime.

Have you been in the library yesterday at 2 in the afternoon?

Did you see the Air pods?

Did you touch the Air pods?

Do you confess to stealing the Air pods?

Researcher I: Hello again! How was the interview?

Lastly, we would like to ask you to fill out a short questionnaire with some demographic questions. After that, you're all done! I'll be available in case you have any questions.

Late disclosure, weak evidence

Researcher I: Welcome, thank you very much for your participation in our research. As you have read in the instruction sheet, we ask you to play the role of a guilty suspect in a police interview. We would like to ask you to try your best to convince the officer of your innocence. Please try to get into character as best as you can. Before we start the actual interview, we would like to make sure that you agree to being recorded and that you are okay with the obtained data being used in our analyses. Furthermore, we would like to make clear that your participation is completely voluntary and that you are free to leave any time you want without having to explain yourself. Do you agree with these points?

Perfect, then I wish you the best of luck during the interview and I will come back after the interview to ask you a few closing questions.

Researcher II: Good morning/afternoon/evening. You do not have to say anything. But it may harm your defense if you do not mention when questioned something which you later rely on in court. Anything you do say may be given in evidence. As you have been informed, you are suspected of having stolen Air pods in the library yesterday at 2pm.

Do you confess to having committed this crime?

Please tell us exactly what you were doing during the time of the crime.

Have you been in the library yesterday at 2 in the afternoon?

Did you see the Air pods?

Did you touch the Air pods?

We have some evidence against you. You were logged into a computer at the library during the time of the crime. We also found your fingerprints on the victim's table. The receptionist told us that she saw someone who matches your description looking into the victim's bag.

What do you have to say about this?

Do you confess to stealing the Air pods?

Researcher I: Hello again! How was the interview?

Lastly, we would like to ask you to fill out a short questionnaire with some demographic questions. After that, you're all done! I'll be available in case you have any questions.

Late disclosure, strong evidence

Researcher I: Welcome, thank you very much for your participation in our research. As you have read in the instruction sheet, we ask you to play the role of a guilty suspect in a police interview. We would like to ask you to try your best to convince the officer of your innocence. Please try to get into character as best as you can. Before we start the actual interview, we would like to make sure that you agree to being recorded and that you are okay with the obtained data being used in our analyses. Furthermore, we would like to make clear that your participation is completely voluntary and that you are free to leave any time you want without having to explain yourself. Do you agree with these points?

Perfect, then I wish you the best of luck during the interview and I will come back after the interview to ask you a few closing questions.

Researcher II: Good morning/afternoon/evening. You do not have to say anything. But it may harm your defense if you do not mention when questioned something which you later rely on in court. Anything you do say may be given in evidence. As you have been informed, you are suspected of having stolen Air pods in the library yesterday at 2pm.

Do you confess to having committed this crime?

Please tell us exactly what you were doing during the time of the crime.

Have you been in the library yesterday at 2 in the afternoon?

Did you see the Air pods?

Did you touch the Air pods?

We have some evidence against you. You were logged into the computer next to the computer of the victim at the library during the time of the crime. We also found your fingerprints on the victim's bag. We have CCTV footage of you looking into the victim's bag.

What do you have to say about this?

Do you confess to stealing the Air pods?

Researcher I: Hello again! How was the interview?

Lastly, we would like to ask you to fill out a short questionnaire with some demographic questions. After that, you're all done! I'll be available in case you have any questions.

Appendix III: Histogram of the Rapport Variable