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Impact of minimization and maximization techniques within investigative interviews

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Abstract

This study tested the effects of minimization and maximization techniques in accusatory investigative interviews. While using maximization techniques, the seriousness of the offence is emphasised (Kelly, Miller, Redlich, & Kleinman, 2013). Minimization is a more soft-sell interrogation technique that should decrease the perceived severity of the crime (Gudjonsson, 2003). The manipulated variables in this study were three interview conditions: control, minimization, and maximization condition. The control condition was the third accusatory interview condition without additional techniques. We expected that minimization techniques lead to a higher information provision than in a control interview because the suspects would be more willing to corporate. When maximization techniques are used, we expected a smaller amount of information than in a control interview because of problems with retrieving information or resistance of the suspects. We also expected a negative effect of maximization on trust due to the increased level of pressure on the suspect. However, no significant effect in trust is expected while using the minimization techniques. This study consists of an online interview and an online questionnaire. Participants had to read a crime scenario about a stolen necklace and should imagine for the interview that they committed the crime. A total of 51 participants took part in the study with 17 participants for each interview condition. The incriminating information provision was significantly increased by the application of minimization techniques, although the total information provision was not influenced. The application of maximization techniques did not affect the information provision. Trust was not significantly influenced by any of the interrogation techniques. The findings of this study were that the application of minimization techniques does not lead to a higher information provision but a higher incriminating information provision. Furthermore, an important finding was that the suspect's trust in the interviewer is not affected by the use of minimization or maximization techniques.

Introduction

Investigative interviews

  The investigative process is a series of steps from collecting evidence to convicting and arresting suspects (Gehl & Plecas, 2017). The goal of criminal investigations is to obtain accurate and reliable information about the crime (Gudjonsson, 2007). Within investigative processes, the investigative interview is a method of questioning involved persons to obtain the maximum quality and quantity of information (Milne & Powell, 2010). Governmental and local agencies use these investigative interviews as an essential part of investigative and judicial processes (Gudjonsson, 2007). In this research, we focus on the investigative processes of the police with suspects as interviewees. The goal of such an investigative interview with suspects is to answer the questions: "What happened?" and "Who did what?" Obtaining information from suspects is often not easy and not always accurate. People can forget information, have not perceived specific information, lie about information, or deliberately withhold information (Gudjonsson, 2007; Milne & Powell, 2010).

Reid technique

  Over the years various techniques have been developed to solve problems where people withhold information or lie about specific information. These techniques are used in an interrogation process. Interrogation is defined by Evans, Meissner, Brandon, Russano, and Kleinman (2010) as: "The systematic questioning of an individual perceived by investigators as not cooperative, within a custodial setting, to obtain reliable information in response to specific requirements" (p.219). The interrogation techniques can influence the perception of requirements with techniques, such as the application of pressure, deception, or manipulation. The developers and proponents of interrogation techniques think that a certain amount of pressure, deception, persuasion, and manipulation is essential if the truth is to be find out (Gudjonsson, 2003). Investigative interviews conducted with these techniques are always accusatory because these techniques are aimed at proving the suspect's guilt (Vrij et al., 2017). One of the most popular techniques is the Reid technique. The Reid technique is a nine-step method for interrogations (Inbau, Reid, Buckley, & Jayne, 2013). Two of the most important procedures of the Reid Technique are maximization and minimization, which are used during the nine steps of the Reid technique.

Maximization and Minimization

Maximization and minimization are both interrogation techniques that can be used during an investigative interview. Both aim to elicit information from the suspects. Maximization is an interrogation technique that seeks to emphasise the seriousness of the offence and intimidate the suspects (Kelly et al., 2013). To intimidate the suspect and to emphasize the seriousness of the crime, the interrogator can use various manipulative steps, like accusing the suspects, confronting the suspects with incriminating facts, or portray the offence as extremely morally reprehensible (Gudjonsson, 2003; Kelly et al, 2013). The goal of maximization is to increase the pressure on the suspects and thus to elicit more information or to force them to confess.

Minimization is a more soft-sell interrogation technique than maximization (Kelly, Russano, Miller, & Redlich, 2019; Luke & Alceste, 2020). Possible minimization steps are, as an example, portraying the criminal behavior as normal, suggest the suspects' behavior has a morally acceptable reason, or say that others or the victim are also responsible for the offence. All in all the goal is to decrease the perceived severity of the crime from the suspect by giving the suspect moral excuses (Gudjonsson, 2003; Inbau et al., 2013; Luke & Alceste, 2020). Gudjonsson (2003) furthermore, states, that authors of minimization techniques have concluded, that most criminals do not cooperate with the police, because they are ashamed of their actions or fear the legal consequences. Therefore, minimization techniques have the goal of reducing the moral responsibility for the suspect to make it easier for them to accept physical responsibility and at the same time lowered the threshold for confession and cooperation.

Decision-making model of confession

Maximization and minimization can influence the decision-making process of a suspect. Within investigative interviews more than one course of action is open to the suspects. They need to decide whether to speak or be silent, whether to tell the truth or not, whether to tell the whole story or only part of it (Hilgendorf & Irving, 1981). Based on the Decision-making model of confession by Hilgendorf and Irving (1981), every behavior is the result of internal decision-making processes. Every possible action of a suspect has good or bad consequences but mostly both. Consequences can be positive for the suspect like getting a lower punishment if the suspect cooperates with the police. Consequences can also be negative, like high punishment when the suspect will be found guilty. The suspects try to anticipate how good the outcome of a specific course of action will be. The expected utility is the assessment of how good or bad the outcome would be for the suspect. The better the

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outcome for the suspect, the higher the utility. The expected utilities will be evaluated together with the subjective probability of this outcome. Which is the assessment of how likely do the suspect think that this outcome will occur (Gudjonsson, 2003; Hilgendorf & Irving, 1981). Based on this consideration, the suspects decide to a certain course of action, like to share information with the police officer or to withhold information (Gudjonsson, 2003; Hilgendorf & Irving, 1981).

Probabilities are a subjective assessment of the suspect on how likely a certain outcome with as an example high utility, will occur. All forms of real and potential personal threats influence the perceived probabilities that a certain outcome will occur. Based on the Decision-making model of confession three main factors can influence the decision a suspect makes: The information the suspect was provided with, the social pressure that can be brought to bear the suspect, and the physical characteristics of the interrogator and the environment. While the former can influence the possible courses of actions the suspect perceives, the latter can lead to a feeling of threat or pressure by the suspect during the interview (Hilgendorf & Irving, 1981). Hence, what the suspect believes will be the probability of an outcome with high or low utility can be influenced by these factors. So the decision-making process of a suspect can also be influenced by these factors because the expected probabilities are much more important for the decision-making process than the actual likelihood (Hilgendorf & Irving, 1981).

The psychological effect of maximization and minimization based on the "Decision-making model of confession"

The from the suspects expected probabilities and the perceived severity of an outcome can be manipulated by several factors. This manipulation can be reached by interrogation techniques like maximization and minimization (Hilgendorf & Irving, 1981). The interrogation techniques are used to influence the decision-making process of a suspect in a way that should lead the suspect to confess or give more information than without any interrogation techniques. As an example, when the interviewer implies that cooperative behavior will lead to less punishment than non-cooperative behaviour, from the suspect perceived probability that the outcome of a cooperative behaviour will lead to lightly or no punishment increases (Gudjonsson, 2003, 2007).

The expected behaviour while using maximization techniques is that the suspects are more cooperative to avoid high punishment (Gudjonsson, 2003). The suspects decision-making should be influenced in a way that increases the perceived likelihood and

severity of punishment and increases the perceived benefit of cooperation. This effect should be reached by increasing the pressure on the suspect and confronting the suspect with incriminating facts (Gudjonsson, 2003). As a response to this, the suspect will change their subjective probabilities of expected utilities and the severity of the outcome. Based on the Decision-making model of confession pressure and information provision are both factors that influence the Decision-making process of a suspect (Hilgendorf & Irving, 1981). While using maximization techniques the suspect should perceive an outcome with high utility by cooperative behavior as more likely than an outcome with high utility by non-cooperative behavior. The suspect should perceive that cooperation is the only way of reducing the punishment (Inbau et al., 2013; Luke & Alceste, 2020). However, different researchers question the real effectiveness of maximization techniques

The expected psychological effect of minimization techniques is that these techniques should lower the perceived severity of punishment, by reducing pressure and therefore lower the perceived risk of cooperating. The reduction of risk can be reached with methods like normalizing the criminal behavior or showing understanding for the offence (Inbau et al., 2013; Gudjonsson, 2003). When using minimization techniques, information that are present to the suspects are of reassuring nature like, say that the crime was not that bad at all. As a response to this, the suspect will change their subjective probabilities of expected utilities which will lead to lower risk perception of cooperative behaviour. Based on the Decision-making model of confession the decision-making process can be influenced e.g. by reducing the perceived moral responsibility or reducing the perceived social pressure. Minimization techniques can also imply the suspect a more lenient punishment than really would happen when finding guilty (Luke & Alceste, 2020). The expected behaviour while using minimization techniques is that the suspects perceive the risk of cooperating as low so they confess or corporate because they expect that this behavior will likely have the highest utility for them (Gudjonsson, 2003; Vrij et al., 2017).

Information provision

However, there is no evidence that the technique of maximization or minimization leads to a higher amount of information or not. Much more, there is even some research that suggests that we can expect less information with the application of maximization (Alison, Alison, Noone, Elntib, & Christiansen, 2013; Hilgendorf & Irving, 1981; Vrij et al., 2017). We expect based on the Decision-making model of confession, that the decision-making process will be influenced. While using maximization techniques the risk of non-cooperation

will be increased and while using minimization techniques the risk of cooperation will be reduced. Consequently, both techniques should lead the suspects to decide to cooperate and give more information (Hilgendorf & Irving, 1981; Inbau, Reid, et al., 2013). There are some researches and theories that support but also refute these expected effects (Hilgendorf & Irving, 1981).

For minimization techniques, there is some evidence that using these techniques will lead to a higher amount of information because it tricks the suspect into a false sense of security. This false sense of security leads suspects to perceive the probabilities of high punishment as very low. This very low-risk perception can induce suspects to give information that they would not give with a higher risk perception (Hilgendorf & Irving, 1981; Vrij et al., 2017). Therefore, we expect that the application of minimization techniques will lead to a higher information provision within investigative interviews than without these techniques.

For maximization techniques, many researchers criticise the approach and question its real effectiveness. The first point of criticism is that interrogation with maximization techniques can lead to dysfunctional decision-making processes because of too high pressure on the suspects (Hilgendorf & Irving, 1981). A dysfunctional decision-making process can lead to reduced extensiveness, detail, and the accuracy of information provision (Vrij et al., 2017). The second point of criticism is that increasing the risk perception of punishment does not mean that suspects cooperate. Much more, different psychological theories and researches show that harsh interrogation tactics like maximization are ineffective and produce resistance which can lead to dismissing cooperation (Hilgendorf & Irving, 1981; Vrij et al., 2017). Therefore, we do not expect that the application of maximization techniques will lead to a higher information provision within investigative interviews.

All in all minimization techniques decrease arousal and resistance and enhance the information provision by giving the suspect a certain level of security. But there is no scientific research right now that proves this assumption. The other way around, we expected that the use of maximization will lead to higher arousal. This high arousal can lead to resistance and less accurate information provision. Therefore, we assume that maximization techniques will lead to less information provision than without these techniques (Alison et al., 2013; Hilgendorf & Irving, 1981; Vrij et al., 2017).

Trust

With the previous explanations, we can explain how we expect the behavior of the suspect to change through the use of these interrogation techniques. Furthermore, the interviewers' behaviour will also be changed by using these different interrogation techniques. While using the minimization technique the interviewer is helpful and full of understanding and in the maximization technique, he/she is critical and grave. So we can expect that the suspects perception of the interviewer will also be different depending on the interrogation technique. These different perceptions can lead to a different level of trust of the suspect in the interviewer.

Mayer, Davis, and Schoorman (1995) define trust as the "willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p. 712). This willingness to trust is based on the perceived trustworthiness of the other party. The trustworthiness of a person is based on their characteristics and actions, like the motivation to lie or expectations of how a person will act based on previous actions (Mayer et al., 1995). Based on the Integrative model of organisational trust three factors are important for the perceived trustworthiness of a person. The first factor is ability. Which are skills and competencies in a specific area. The second factor is benevolence. That is the attitude of the trustee to be good to the trustor without pursuing egocentric motives. The last factor is integrity. Integrity describes the adherence of the trustee to certain principles that are consistent over time. If these three factors are high the trustee will be perceived as trustworthy (Mayer et al., 1995).

Additionally, Johnson-George, and Swap (1982) formulate that the "willingness to take risks may be one of the few characteristics common to all trust situations" (p.1306). Various studies have shown that the pressure exerted on a suspect can lead to less willingness to take risks and having little or no trust in the interviewer anymore (Kelly et al., 2013). Hence interrogation techniques can affect interpersonal relations between the interviewer and the suspect and therefore also the trust of the suspect in the interviewer (Johnson-George & Swap, 1982; Mayer et al., 1995).

Based on these the three factors of trust can also be relevant for an investigative interview to the extent that they can influence the suspect's decision-making. A high overall level of trust could lead to the suspect taking the risk of giving certain information that could be incriminating for the suspect (Johnson-George & Swap, 1982; Mayer et al., 1995). As an example, a high level of benevolence could lead to the interviewee being perceived by the

suspect as a good person, which in turn could reduce the perceived probability for the suspect that cooperative behavior will end with a high punishment.

We conclude that maximization techniques can increase the pressure and influence the factors of trust ability, benevolence, and integrity in a negative way. Because of this, we expect that the overall trust will be less than in the control condition. For minimization, we do not expect any difference in trust because the factors of trust will not be influenced by minimization techniques. Minimization techniques do not influence the perceived ability of the interviewer and also do not give any indication that the interviewer will stick to his/her principles. Only an influence on benevolence can be expected because through the expression of understanding for the suspect the impression can raised that the interviewer is not acting egocentric (Mayer et al., 1995). Based on the definition of trust from Johnson-George and Swap (1982) we can assume that a high level of trust also leads to a high amount of information. They explain that a high level of trust means that the trusting person increasingly takes certain risks. In an investigative interview, giving information is always a risk, which is why we expect the level of trust to correlates positively with the amount of information.

Hypothesis

With this research, we test the effect of maximization and minimization on information provision within investigative interviews and their impacts on the trust of the suspects in the interviewer (Hilgendorf & Irving, 1981). The interviews were conducted as accusatory interviews for the control coding, the maximization condition, and the minimization condition. Which allows us to determine the special effects of maximization and minimization.

Both techniques have the goal of enhancing cooperation. Maximization techniques by increasing the risk of non-cooperation, and minimization techniques by decreasing the risk of cooperation. We will test how much information we receive with both techniques and compare this with an accusatory interview without maximization or minimization techniques. As previous research suggests, we therefore expect an increasing cooperation effect only in the minimization condition. In the maximization condition, we expect less cooperative behavior. Based on the psychological effects of minimization and maximization and previous research we hypothesise, that:

1. We get more information from the suspects in investigative interviews with minimization techniques than in investigative interviews with a control condition.

2. We get less information from the suspects in investigative interviews with maximization techniques than in investigative interviews with a control condition.

The last point is the interpersonal trust of the suspect in the interviewer. We want to test how the trust of the suspect in the interviewer changes when minimization or maximization techniques are used. According to the Integrative model of organisational trust while using maximization techniques certain factors such as benevolence can be negatively affected. Therefore, we proposed that the suspect's trust in the interviewer will be lower than in the control condition. For the minimization techniques, no factors of trust are influenced, which is why we proposed that the trust in the interviewer will be probably not significantly lower or higher than the control condition (Mayer et al., 1995).

Based on the Integrative model of organisational trust we hypothesise that:

3. The trust of the suspect in the interviewer is lower in an investigative interview with maximization techniques than in an interview with a control condition.

4. The trust of the suspect in the interviewer is the same in an investigative interview with minimization techniques as in an interview with a control condition.

Design

In the current experiment, a between-subjects design was used. The independent variable interrogation technique was manipulated and has the three conditions, maximization, minimization, and control conditions. The dependent variables were information provision and trust.

Participants

In total 51 participants took part in this study. The participants were partly recruited personally by the two researchers through personal questioning or WhatsApp, Facebook, and Instagram and partly via the Sona Psychology Test Subject Pool. Sona Psychology Test Subject Pool is a website where students of the University of Twente can publish their studies so that other students can participate in exchange for study credits. Because a part was personally recruited by the researchers, there were also acquaintances of the researchers among the participants. To prevent biased results, it was ensured that all participants were interviewed by a researcher who was unknown to them. The prerequisite for participation was that the participants were at least 18 years old, could speak fluent German or English, and

could read English well. Of the total of 51 participants, 41 were female and 10 were male. The 45 of the participants came from Germany, 3 from the Netherlands, and 3 from other countries. The age range was from 18 years to 61 years with a mean age of 25 years and (SD = 9.43). We had the approval of the BMS research ethics committee to carry out this study. All participants have agreed on their data being used anonymously for research purposes.

Materials and measures

To participate in the study, a laptop, computer, tablet, or mobile phone with an existing internet connection was required. The online program Google Meets was used to conduct the interviews. The program Qualtrics was used to create an online questionnaire with 49 questions and to let the participants fill out this questionnaire finally. This questionnaire contained scales concerning rapport, the perceived risk of punishment, and trust. Because this study was done collaboratively all three scales were included. I have only used the scale of trust. The interview was transcribed with the program Amberscript. For analysis of the data IBM, SPSS Statistics 24 was used.

Crime Scenario

To give all participants the same background story, a crime scenario was used in which the day of the crime and the crime itself was described (Appendix A). The crime took place at a party of a contractor to which the suspect was invited. At this party, they stole a valuable necklace from the host's wife. The story was written from the first-person perspective. The participants had received a plausible background story of the main character that explained the motivation for the theft. The story contained information about the place, time, persons, and actions of the main character. This information enabled the participants to emphasize with the person who is described and to have information to be able to answer the interview questions from the perspective of the thief. Furthermore, a uniform background story for all participants makes their responses in the interview comparable because we know which information were exactly given to the participants. Based on this information, we were able to compare the participants responses with a coding scheme.

Interview Script

For the interview, an interview script was created consisting of seven open questions which should give the participants the opportunity to the provide the information described in the crime scenario (Appendix C). The questions started with a very general question "Tell me

everything that happened on the night of the April 15th from your perspective." up to very specific questions "Tell me everything you did in the private living room, step by step." The last question gave the participants the opportunity to add everything to their defence that they had not yet mentioned. The questions were the same for all three interview conditions. The same questions for all interview conditions made it possible to compare the various conditions and prevent validity errors.

Every interview had a short introduction, in which the interviewer listed what the suspect has to expect in this interview, what the interview is about, and that the interviewer expected the suspect to be honest and to answer all questions in detail (Appendix B). All introductions were accusatory and guilt presumptive. In all interviews, the interviewers assumed that the suspect was guilty. The interviews aimed to prove the suspect's guilt. The first four and the last four sentences in the introductions were the same for all interview conditions. The conditions only differed in some sentences in the middle of the introductions. For example, in the minimization techniques the phrase "No one is angry with you because of this." was added to express understanding for the crime and show that the interviewer did not convict the suspect. In the maximization condition, sentences like "I hope you understand how serious this is for you." were added to emphasise the seriousness of the crime.

To support the manipulation through maximization and minimization and to make the intention of the interviewer more credible, the various interview conditions were conducted in a different tone of voice and mimics. In the neutral version, the interviewer was factual in both his/her voice and his/her facial expressions. The interviewer was friendly and personable during the minimization condition, smiled and used an honestly friendly and warm tone of voice. By contrast, in the maximization condition, the interviewer remained rather inaccessible, neither smiled nor showed any other signs of interest or understanding.

Trust Questionnaire

Trust was measured using the trust scale from Mayer and Davis, (1999) (Appendix F). The questionnaire measured the three components of trust: ability, benevolence, and integrity. Six items measured ability like "The interviewer seemed very capable of performing their job." Five items measured benevolence like "The interviewer seemed very concerned about my welfare." Finally, six items measured integrity like "The interviewer seemed to have a strong sense of justice." The instruction to the participants were that they should imagine the investigative interview would have been real. Based on this, they should answer how much they agree or disagree with each of the statements. The questionnaire was measured on a

Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scales were analysed together as a whole trust scale and separately for each trust component. The Cronbach's alpha for all items of the trust scale was .59. For ability and benevolence Cronbach's alpha was .40, For ability and integrity Cronbach's alpha was .55 and for integrity and benevolence Cronbach's alpha was .52.

Coding Scheme

We used a coding scheme to analyse the amount of information we had got in the interviews (Appendix G). This coding scheme was based on the crime scenario. Every piece of information that was mentioned in the crime scenario was coded. As an example, the crime scenario stands: "Mr. Smith and his wife greeted you personally at the entrance to the villa." One piece of information was that Mr. Smith and his wife greeted the suspect personally, so the code was "personal greeting". Another information was the place of the greeting, so the code was "greeting at the entrance to the villa". The highest possible score for information provision was 38.

Furthermore, another variable was created that only contains incriminating information. Only the information that included specific admissions who made it more likely that the suspect was to be found guilty. This information could e.g. be "I picked up the necklace" or "I took a closer look at the necklace." Or information that gave a possible motive for the theft e.g. "I have debts." The highest possible score for incriminating information provision was 8.

The procedure was as detailed as possible to ensure that all of the information that the participants could give was counted. Information that could not be found in the crime scenario was not counted to make sure we only count the provision of accurate details. Furthermore, information that was mentioned more than once was only counted once.

Procedure

The participants could register privately with the researchers or via the Sona System Portal. In both cases, an appointment was first made on when the interview should take place and the online questionnaire should be completed. Then an email was sent to the participants with all necessary information for the interview and the questionnaire afterward. The participants were told that they should read through the crime scenario to be able to put themselves in the position of the offender and to be able to answer the questions in the interview. In addition to the date and time of the interview, the email also contained the crime

scenario, the informed consent, the link to the questionnaire, a link to a Google Meet meeting, and a participant number. At the start of the meeting via Google Meet the participants were welcomed by one of the researchers. This researcher first asked the participants for permission to record the interview and for the consent of the informed consent. Once this was done, the participants were told as the last instruction that they should behave as they would be really in that situation, to prevent the participants from acting excessively. Before the interview began, the participants were allowed to ask questions. When there were no more questions unanswered, the first researcher muted themself and turned the camera off. Then the second researcher turned his camera and microphone on. The second researcher had the role of the interviewer. The interviewer then presented one of the three interrogation introductions and then asked the questions of the interview.

As soon as the interview was over, the recording was stopped. The first researcher came back to the interview and advised the participants to fill out the Qualtrics survey. The second interviewer muted themself and turned off the camera. In the online questionnaire, first, some demographic questions were asked about gender, nationality, and age. This was followed by the post-experiment questionnaire that tested rapport, trust, and risk perception. Only the results from the trust scale are used for analysis in this study. After the participants had completed the questionnaire, they received a written debrief and were allowed to ask further questions. The debriefing explained that this study aimed to test how various accusing interrogation techniques affect information provision, the trust between interviewer and suspect, the relationship between interviewer and suspect, and the risk perception of the suspect. After that and when there were no more questions from the participants, the researchers thanked the participants for their help and then said goodbye.

Data Analysis

The results of the Qualtrics questionnaire as well as the results from the coding were exported and transferred to IBM SPSS Statistics 24 to analyse them. In order to analyse the results, first, the average value and the distribution of information provision and trust was determined for all three interview conditions. All analyses were done considering an alpha of .05. For all variables that meet the assumptions for an ANOVA, an ANOVA was carried out. For the other variables, an Kruskall-Wallis H test was used. Furthermore, it was also tested whether there was a correlation between the information provision and the suspects trust in the interviewer.

To analyse the variable information provision, a one-way ANOVA was run. The first hypothesis was that we get more information from the suspects in investigative interviews with minimization techniques than in investigative interviews with a control condition. These hypotheses compare the minimization condition and the control condition. The second hypothesis was that we get less information from the suspects in investigative interviews with maximization techniques than in investigative interviews with a control condition. These hypotheses compare the maximization condition and the control condition. To test these specific assumptions Turkey post hoc tests were run also if the one-way ANOVA showed no significant result.

The first and second hypothesis was also tested with the incriminating information provision variable. For this, a Kruskal-Wallis H test was run. To test these specific assumptions of the hypotheses that the information provision will be higher in the minimization condition than in the control condition and that the information provision will be lower in the maximization condition than in the control condition Mann-Whitney U tests were conducted.

To test the third hypothesis, that the trust of the suspect in the interviewer is lower in an investigative interview with maximization techniques than in an interview with a control condition, and the fourth hypothesis, that the trust of the suspect in the interviewer is the same in an investigative interview with minimization techniques as in an interview with a control condition a one-way ANOVA was run. Due to the special hypotheses that compare the control condition with the minimization condition and the maximization condition, a Turkey post hoc test was also carried out here, even if the results of the one-way ANOVA showed no significant result.

For the first factor of trust, ability, a Kruskall-Wallis H test was used to determine if there is a significant difference between the three conditions and two Mann-Whitney U tests to determine whether there is a difference between minimization and the control condition and maximization and the control condition. For benevolence and integrity, a one-way ANOVA was run to determine if there is a significant difference between the three conditions. To determine whether there is a difference between minimization and the control condition and maximization and the control condition the Turkey post hoc test was used once again.

Finally, a Pearson's correlation was conducted for all variables to test whether there is a correlation between information provision and trust and to test whether there is a correlation between incriminating information provision and trust.

Results

Interrogation technique and information provision

  The first two hypotheses consider the effects of different interrogation techniques on the information provision in an investigative interview. The information provision was normally distributed according to the Saphiro-Wilk test ($p > .05$). To test the hypothesis we conducted a one-way ANOVA to access the effect of the interview condition on the information provision. The mean score of information provision was 15.37 ($SD = 4.93$). The information provision did not differ significantly for the three conditions, $F(2,48)$, $p = .17$. Because of the specific hypothesis we had to test nevertheless with a Tukey-HSD post hoc test the difference between the minimization condition and the control condition and between the maximization condition and the control condition.

  For the first hypothesis, that we get more information in investigative interviews with minimization techniques than in investigative interviews with a control condition the post hoc comparison indicated that the mean score for the minimization condition ($M = 17.12$, $SD = 5.58$) and the control condition ($M = 15.00$, $SD = 4.47$), was not significantly different ($p = .42$).

  For the second hypothesis, that we get less information in investigative interviews with maximization techniques than in investigative interviews with a control condition, the Post hoc comparison indicated that the mean score for the maximization condition ($M = 14.00$, $SD = 4.42$) and the control condition ($M = 15.00$, $SD = 4.47$), was not significantly different ($p = .82$).

  The Incriminating Information Provision was not normally distributed. A Kruskal-Wallis H test was conducted to access the effect of the interview condition on the incriminating information provision. The Kruskal-Wallis H test showed that there was a statistically significant difference in information provision between the three conditions, $H(2) = 6.31$, $p = .04$ with a mean rank incriminating information provision of 21.12 for the control condition, 32.59 for minimization, 24.29 for maximization.

  To test the first hypothesis, a Mann-Whitney U test was run. The follow up test showed a significant difference between incriminating information provision of the minimization condition and incriminating information provision of the control condition ($Mdn, IQR = 1.00(0.50,2.00)$ vs. $Mdn, IQR = 1.00(0.00,1.00)$, $U = 79$, $p = .02$. The incriminating information provision for the minimization condition was higher than in the control condition.

To test the second hypothesis, it was also conducting a Mann-Whitney U test. The test indicated that the incriminating information provision of the maximization condition was not significantly different than the control condition (*Mdn, IQR* = 1.00(0.00,1.00) vs. *Mdn, IQR* = 1.00(0.00,1.00), *U* = 127, p = .50. Therefore, we can reject the null hypothesis for the dataset of Incriminating Information provision for comparing the control condition and minimization but we can not reject the null hypothesis for comparing the control condition and maximization.

Interrogation technique and Trust

The third and fourth hypotheses consider the effects of different interrogation techniques on the trust of the participant in the interviewer in an investigative interview. The data were normally distributed according to the Saphiro-Wilk test (*p* > .05). Because of this, we conducted a one-way ANOVA to access the effect of the interview condition on trust. The mean score of trust was 3.12 (*SD* = .51). The three different Interview conditions did not differ significantly *F*(2,48), *p* = .43. Because of the specific hypothesis we had to test nevertheless with a Tukey-HSD post hoc test the difference between the minimization condition and the control condition and between the maximization condition and the control condition.

To test the third hypothesis, that the trust of the suspect in the interviewer is lower in an investigative interview with maximization techniques than in an interview with a control condition the Post hoc comparison indicated that the mean score for the maximization condition (*M* = 2.99, *SD* = .56) and the control condition (*M* = 3.21, *SD* = .38), was not significantly different (*p* = .22).

To test the fourth hypothesis, that the trust of the suspect in the interviewer is the same in an investigative interview with minimization techniques as in an interview with a control condition, the Post hoc comparison indicated that the mean score for the minimization condition (*M* = 3.16, *SD* = .58) and the control condition (*M* = 3.21, *SD* = .38), was not significantly different (*p* = .95).

Ability, benevolence, and integrity are important factors of trust. The trust questionnaire consists of scales that test these three factors. Therefore, all three factors were tested independently of one another.

Interrogation technique and Ability

According to the Saphiro-Wilk test the ability mean was not normally distributed. Because of this, a Kruskal-Wallis H was conducted. The median of ability was 3.83 (*IQR* = 3.17, 4.00). The test showed that there was a statistically significant difference in information provision between the three conditions, $H(2) = 1.32$, $p = .52$ with a mean rank of 29.00 for the control condition, 25.79 for minimization, 23.21 for maximization.

For completeness, Mann-Whitney U tests were conducted. These tests showed a non-significant difference between ability in the minimization condition and ability control condition (*Mdn, IQR* = 3.83(3.25, 4.09) vs. *Mdn, IQR* = 3.83(3.42, 4.17), $U = 126$, $p = .52$. A non-significant difference between maximization condition and the control condition (*Mdn, IQR* = 3.67(3.09, 4) vs. *Mdn, IQR* = 3.83(3.42, 4.17), $U = 112$, $p = .26$. And between the maximization condition and the minimization condition there was also no significant difference (*Mdn, IQR* = 3.67(3.09, 4) vs. *Mdn, IQR* = 3.83(3.25, 4.09), $U = 129.5$, $p = .60$. Therefore, no significant differences were found between interrogation techniques on ability.

Interrogation technique and Benevolence

According to the Saphiro-Wilk test ($p > .05$) benevolence was normally distributed. Because of this, we could use a parametric test. A one-way ANOVA was conducted to access the effect of the interview condition on benevolence. The mean score of benevolence was 2.30 (*SD* = .77). The three different Interview conditions did not differ significantly $F(2,48)$, $p = .74$.

Turkey HSD post hoc tests were conducted for completeness. The test showed that between minimization condition (*M* = 2.54, *SD* = .72) and control condition (*M* = 2.40, *SD* = .77) there was not significantly difference ($p = .85$), between the maximization (*M* = 1.96, *SD* = .75) and the control condition (*M* = 2.40, *SD* = .77) there was also no significant difference ($p = .21$) and finally between maximization condition (*M* = 1.96, *SD* = .75) and minimization condition (*M* = 2.54, *SD* = .72) was also no significant difference ($p = .07$). Therefore, also no significant differences were found between interrogation techniques on benevolence.

Interrogation technique and Integrity

According to the Saphiro-Wilk test ($p > .05$) integrity was normally distributed. Because of this we can use a parametric test. A one-way ANOVA was conducted to access the effect of the interview condition on integrity. The mean score of benevolence was 3.34 (*SD* = .65). The three different Interview conditions did not differ significantly $F(2,48)$, $p = .73$.

Again Turkey HSD post hoc tests were conducted for completeness. The tests showed that between minimization condition ($M = 3.24$, $SD = .77$) and control condition ($M = 3.38$, $SD = .56$) there was not significantly difference ($p = .79$), between the maximization ($M = 3.40$, $SD = .63$) and the control condition ($M = 3.38$, $SD = .56$) there was also no significant difference ($p = 1$) and finally between maximization condition ($M = 3.40$, $SD = .63$) and minimization condition ($M = 3.24$, $SD = .77$) was also no significant difference ($p = .77$). Thus, no significant differences were found between interrogation techniques on integrity.

Information provision and trust

Pearson's correlation coefficient was computed to assess the relationship between information provision and the trust variable.

Table 1.

Correlation Matrix

		1.	2.	3.	4.	5.	6.
1. Information provision	Pearson's r	—					
	p-value	—					
2. Incriminating information provision	Pearson's r	.34*	—				
	p-value	.01	—				
3. Trust	Pearson's r	-.01	.09	—			
	p-value	.96	.56	—			
4. Ability	Pearson's r	-.06	.09	.74**	—		
	p-value	.66	.53	.00	—		
5. Benevolence	Pearson's r	.07	.03	.72**	.25	—	
	p-value	.62	.85	.00	.07	—	
6. Integrity	Pearson's r	-.02	.07	.78**	.38**	.36*	—
	p-value	.87	.61	.00	.01	.01	—

* Correlation is significant at the 0.05 level (2-tailed)

** Correlation is significant at the 0.01 level (2-tailed)

There was no correlation between the information provision and the trust scale $r(51) =$ -.01, $p = .96$. Therefore, a Pearson's correlation coefficient was also computed to assess the relationship between information provision and the three factors of trust. Table 1. shows that there was no correlation between the three factors of trust and information provision. Furthermore, there was also no correlation between the incriminating information provision and the trust scale $r(51) = .09$, $p = .56$. Also, a Pearson's correlation coefficient was computed to assess the relationship between incriminating information provision and the three factors of trust. Table 1. shows that there was also no correlation between the three factors of trust and incriminating information provision.

Discussion

This study investigated how the interrogation techniques maximization and minimization are affecting the information provision in an investigative interview and how the trust of the interviewee in the interviewer is influenced by these techniques. The results show that general information provision was not influenced by the use of minimization or maximization techniques. However, a positive effect in the provision of incriminating information could be observed while using minimization techniques. Furthermore, the suspects' trust was not affected by the use of minimization techniques, or by the use of maximizing techniques.

Information provision

The first hypothesis implied that we get more information from the suspects in investigative interviews with minimization techniques than in investigative interviews with a control condition.

The key finding was that minimization techniques increased the incriminating information provision without increasing the general information provision. A possible explanation for this is that one of the most common lying strategies is that the liar stays close to the truth while telling their alternative narratives. Liars try to stay as close as possible to the

truth so as not to betray themselves through mistakes in their narrative chronology or through contradicting other information (Strömwall & Willén, 2011). Furthermore, another tactic they use is to provide as much information as possible to make their story believable. The liars try to tell the true story and only leave out self-incriminating information or replace them with an alternative narrative (Strömwall & Willén, 2011). Therefore, regardless of each interview condition, the participants gave accurate information that was close to the truth in order to make their lie credible. Because of this information provision did not differ in all three interview conditions, because all suspects were forced to reveal accurate details in order not to let their lies be exposed. However, the suspects did not give information which included admissions to their guilt or that made it more likely that they will be found guilty. The disclosure of these incriminating information carried a high risk for the participants of being punished. Therefore, they decided against the disclosure of this information in their decision-making process. These information could be avoided or replaced by alternative narratives (Hilgendorf & Irving, 1981).

While using minimization techniques the participants have not sometimes avoided the incriminating information and also did not tell an alternative narrative. This can be justified by the fact that the minimization techniques tricked the participants into a false sense of security, because the minimization techniques reduced the perceived severity of the crime (Gudjonsson, 2003; Inbau et al., 2013; Vrij et al., 2017). This false sense of security shifted participants' perception of the actual risk of giving certain information. Overall information and incriminating information differed in the risk of negative consequences for the suspect. If the suspect was tricked into a false sense of security, the perceived risk of giving incriminating information was reduced. By reducing the perceived risk of giving incriminating information, it can become more difficult for the suspect to distinguish the non-incriminating information from the incriminating information. Therefore, contrary to their presumptive strategy, the participants gave information they would normally not give because of the changed risk perception (Vrij et al., 2017).

The second hypothesis stated that we get less information in investigative interviews with maximization techniques than in investigative interviews with a control condition. This hypothesis is based on the research of Vrij et al. (2017). They state that maximization techniques can lead to reduced extension and detail in information. Furthermore, too much pressure on the suspect can lead to a non-functional decision-making process and resistance by the suspects (Hilgendorf and Irving, 1981; Vrij et al., 2017). The results of this research showed that for information provision and also incriminating information provision the

amount of information in the maximization condition was not significantly different from the amount of information in the control condition.

Strömwall and Willén (2011) have found in their research that "stay close to the truth" and "giving as much as information as you can", are two strategies of liars. These findings support the non significant results between the maximization and minimization condition. These two strategies show that liars give as much accurate information as they can to make the lie credible. With these lying strategies it can be explained why the suspects did not provide less information despite the expected problems of maximization techniques. Just like in the control and minimization condition, the participants tried to give as much and accurate information as possible in order to make their lies more credible. The incriminating information provision, in turn, did not differ because the participants avoided the incriminating information in both the control and the maximization condition to avoid negative consequences such as being found guilty and punished. So there could be no negative effect on the incriminating information since the participants revealed almost no incriminating information in the control condition.

The non-significant results in information provision and incriminating information provision could also be explained by the fact that all three interview conditions were accusatory. Participants in an accusatory interview generally feel more uncomfortable and feel a higher degree of pressure (Vrij, Mann, & Fisher, 2006). In addition, all participants in this study had to lie, which also increased the pressure on the participants (Kassin & Gudjonsson, 2004). So the control and the maximization interview condition triggered the same amount of pressure and disconfirm among the participants which explains why we had no difference in information provision. The pressure for the suspects were more or less the same and could not be increased further by maximization techniques, since it is already clear that the interviewer considered the suspect to be guilty.

The nevertheless significant value in incriminating information provision in the minimization condition can be explained by the fact that, the disconfirm of the participants and the pressure were somewhat offset again, since the minimization techniques have parallels to a humanitarian interview style. A humanitarian interview is characterised by the fact that the interviewer tolerates the behavior of the suspect, behaves helpful, and shows empathy (Holmberg, 2004; Holmberg, & Madsen, 2014). Something similar happens with the minimization technique, where the interviewer expresses his understanding of the suspect and emphasises that he does not condemn the suspect for the crime. Humanitarian interviews are

generally more effective in extracting specific information from the suspect, like incriminating information (Holmberg, 2004; Holmberg, & Madsen, 2014).

All in all, the most important finding was that the amount of incriminating information while using minimization techniques was higher than in the other interview conditions but the total amount of information remained the same for all three conditions. This can be explained by the fact that all participants were encouraged to lie and typical strategies to lie are to stick to the truth and to give as much information as possible (Strömwall & Willén, 2011). But because the participants were tricked into a false sense of security in the minimization condition and the minimization techniques have parallels to a humanitarian interview style they have given more incriminating information than in the other conditions (Vrij et al., 2017).

Trust

The third hypothesis says that the trust of the suspect in the interviewer is lower in an investigative interview with maximization techniques than in an interview with a control condition. The fourth hypothesis states that the trust of the suspect in the interviewer is the same in an investigative interview with minimization techniques as in an interview with a control condition. The results of this study show that there is no significant difference between trust in the maximization or minimization condition and trust in the control condition. The statistical tests also show no significant difference in ability, benevolence, and integrity.

This can be explained by the point that accusatory interviews put a certain amount of pressure on the participants, which leads the participant to experience more discomfort (Vrij, Mann, & Fisher, 2006; Vrij et al., 2017). Various studies have shown that interrogation techniques that work with a high amount of pressure can impair the trust of the suspect in the interviewer (Kelly et al., 2013). All three interview conditions were accusatory and therefore all put pressure on the suspects (Vrij et al., 2006). Therefore, trust might not differ in all three conditions since trust in all interview conditions is equally impaired by the accusatory interview style.

Another reason that explains the non significant difference is that all three factors of trust remained unaffected by the goals of minimization techniques to lower the perceived severity of the crime and to provide moral excuses and by the goal of maximization techniques to increase the perceived severity of the crime. The Integrative model of organisational trust shows that trustworthiness is built on integrity, benevolence, and ability

(Mayer et al., 1995). The different interviewer's behavior in the three interview conditions has no or a relatively similar effect on the three factors of trust. The only exception of this is benevolence where an almost significant difference was found between minimization and maximization. Integrity is not affected by minimization and maximization techniques because in none of these investigative interviews the suspect was able to get an expectation about whether the interviewer's behavior remains consistent or not. This is because the suspect had no prior knowledge about the interviewer and only one interview took place. The perceived abilities of the interviewer were not affected by minimization or maximization techniques because no specific abilities were used to conduct the interview. The suspect did not receive any information about the interviewer on which they could expect certain skills. Furthermore, the skills used by the interviewer, such as the skill of conducting an investigative interview, were the same in all three interview conditions. Therefore, minimization and maximization techniques did not influence these factors. However, there was a nearly significant effect of benevolence while comparing the minimization techniques and the maximization techniques. Benevolence could be positively influenced by the application of minimization techniques because, during the interview in the minimization condition, the interviewer expressed his understanding, which presumably made him appear more sympathetic to the suspect. One person's sympathy for another is always subconsciously based on a certain level of benevolence. In the maximization condition, on the other hand, the interviewer made it clear that he did not feel any sympathy for the suspect. In this interview condition, the suspect has certainly not perceived the interviewer as sympathetic and because of this have also no benevolence (Wispé, 1991).

All in all, the minimization techniques and maximization techniques did not affect the suspects trust in the interviewer. All interviews had the same accusatory interview style and put the suspect under the same amount of pressure. Furthermore, the individual trustworthiness factors were not influenced by the minimization or maximization techniques. Benevolence has shown an almost significant effect when comparing minimization techniques and maximization techniques. This factor could be investigated further in future research to find out whether maximization techniques and minimization techniques might not influence benevolence.

Correlation between information provision and trust

The results show that there is no correlation between information provision and trust. Countering of the expectation, a higher degree of trust does not lead to a higher information

provision. The provision of incriminating information also does not correlate with the suspect's trust in the interviewer. Based on the definition of trust of Johnson-George and Swap (1982) we have expected that a higher level of trust would automatically lead to a higher amount of incriminating information. They argue that risky behavior is one of the characteristics that all trust situations have in common. Based on this definition trust should lead to risky actions. Disclosing incriminating information always carries the risk of being found guilty by the suspects. A possible explanation for the non-significant correlation between the variables trust and information provision would be that other factors are more important for the information provision. For example, humanitarian interviews are very good at getting certain information. In humanitarian interviews, the interviewer accepts the suspect's actions and does not judge their actions (Holmberg, 2004; Holmberg, & Madsen, 2014). However, we have already shown that minimization techniques have parallels to the humanitarian interview but do not lead to a higher level of trust. Therefore, we can conclude that other factors are important for information provision. The behavior of the interviewer could, for example, determine the amount of information given in an investigative interview (Vrij et al., 2006). But the type of question and the relationship between the interviewer and the suspect could also influence the provision of information. For example, different studies have shown that rapport-based interviews or information gathering approaches are also more effective at gathering information than other interview techniques (Brimbal et al., 2021; Vrij et al., 2006).

Strength and limitations

One of the main limitations of this study was the small sample. For each of the three interview conditions, there were 17 participants, which makes a total of 51 participants for the entire study. The reasons for this small sample might have been that conducting this study was time-intensive for the participants by preparing and conducting the interview. Because of this it was difficult to find many participants who were willing to participate. Additionally, due to COVID 19 and the limited time for this study, it was difficult to find participants outside the university and the family and friends of the researchers.

One strength of this study was the internal validity of this research. The questions that were asked during the interview were the same for every participant. Because of this, we can be sure that the observed difference comes from the manipulation of the variables and not from other factors such as different questions. Only the introductions had three different versions to create the three interview conditions. This had the advantage that the

maximization techniques and minimization techniques were comparable to the control condition because they had the same introduction that was only supplemented by a few additional sentences. These sentences expressed support and understanding in the minimization condition and increased the pressure and emphasised the severity of the crime in the maximization condition. However, this strength was also partly a weakness. The questions were all the same for the three interview conditions, which is why the interviewers could only vary in their tone of voice depending on the conditions but not in their words. The effect of the interrogation techniques was therefore not as strong as it could have been if the interviewers could have used maximization or minimization techniques also while asking the questions.

Additionally, because of the COVID19 situation, it was an online interview. During an online interview, the suspects can control their surroundings and do not sit next to the interviewer. An environment that cannot be controlled by the suspect increases the pressure on the interviewee and can lead to problems in recall and decision making (Hilgendorf and Irving, 1981).

Another limitation was that the participants have not committed a real crime. The participants had not to fear real consequences, which is why the risk of giving specific information was low or did not exist in all three Interview conditions. Furthermore, the pressure for the suspects was not that high that we could expect any resistance behaviour from the participants (Vrij et al., 2017; Hilgendorf & Irving, 1981). Additionally, because the suspect has only read a crime scenario, it is more difficult for them to remember and visualise details than with a real crime (Bradley, Malik, & Cullen, 2011). Nevertheless the crime scenario was also a strength of this study. The crime scenario was easy to understand and it vividly portrayed the motives and reasons for the crime. Furthermore, the crime scenario included all the necessary information to answer the interviewer's questions in detail without the participants having to think about their details. Furthermore, the background information that the participants received was the same for all. So we can be sure that the observed difference comes from the manipulation of the variables and not from other factors such as different information provision.

Another strength and also a limitation of this research was that the interview could be conducted in two languages (English and German). The strength was that the participants could choose one of the languages that suited them most. Because of this, understanding problems during the interview were prevented. One limitation, however, was that it reduced the comparability of the answers. The meaning of a question in one language is mostly not

completely the same as in another language. Another limitation was that in order not to influence the reliability of the trust questionnaire, it was left in English. Because of that it could have happened that some participants had problems understanding all the questions.

This study provides statistical evidence on the effect of using maximization techniques and minimization techniques on information provision and the suspect's trust in the interviewer. The study offers some important insights into the effects of these interrogation techniques. A recommendation for further research would be to include the maximizing and minimizing techniques in the questions in order to increase the effect of maximizing techniques and minimizing techniques. Furthermore, it would be interesting to see if the results change if the participants commit a faked crime instead of reading a crime scenario. For the variable trust, it would be interesting to examine the value of benevolence more closely to see whether it might show a significant difference between maximization and minimization techniques. Furthermore, it could test whether other factors influence the information provision and trust during an investigative interview like the environment in which the interview was conducted.

Conclusion

The goal of this study was to test the effects of minimization and maximization techniques in accusatory investigative interviews. The key finding of this research was the positive effect of minimization techniques on incriminating information provision without increasing the total information provision. Maximization techniques did not influence the information provision, neither on the total information nor on the incriminating information. In this study, we have shown that it can be beneficial to use minimization techniques in an investigative interview, because it tricks the suspect into a false sense of security. This sense of security leads the suspect to give information that they would otherwise have assessed as too risky in order to disclose them. Additionally, the minimization techniques have characteristics of a humanitarian interview such as understanding and empathy for the suspect. The general amount of information was not significantly different between the three interview conditions because in all three conditions the participants had to lie and were exposed to the pressure of the accusatory interview.

Another important finding is the outcome that trust was not influenced by the interrogation techniques. A significant point was that even the use of maximization techniques did not lead to less perceived trustworthiness of the interviewer. Only the

trustworthiness factor benevolence according to the Integrative model of organisational trust, has shown a nearly significant difference between the techniques. The other two factors integrity and ability were not influenced by interrogation techniques because of this also the overall trust of the participant in the interviewer was also not different between the three Interview conditions. This finding is so far important because contrary to the expected effect, the use of certain maximization techniques did not significantly affect the overall trustworthiness. To duke it up the type of interrogation technique did not affect the respondent's overall trust in the interviewer.

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Appendix

Appendix A: *Crime scenario*

Crime scenario

Thank you for taking part in this study. Below is a short story about a theft at the house of a building contractor. Please read the whole story in detail and try to put yourself in the place of the person described here. You will take the role of this person and be asked questions about the content of this story in the interview.

Your best friend Max called you on the morning of the 15th of April. Max invited you to a party hosted by a successful building contractor that he knew well. The contractor's name is Mr Smith.

You were not in the best mood because your own IT company is not doing very well and now you are in a lot of debt and struggling to pay back your loans. For the sake of your best friend, you said you would go to the party anyway.

You put on your best clothes and, in the evening, you drove to Mr Smith's mansion with your best friend. The mansion was situated on a large property with a huge garden. An employee took your invitations at the door and let you inside the mansion.

Mr Smith and his wife greeted you personally at the entrance to the villa. While you were talking to them, you could not stop looking at the shiny diamond necklace worn by Mrs Smith. It must be very valuable, you were sure that it might even cost so much that you could pay your debt with it.

The party itself was happening in the garden pavilion, where all the other visitors flaunted their wealth. As the evening progressed, you had a couple of superficial conversations with strangers but none of them were meaningful or memorable.

At 11 p.m., you wanted to go home but you could not find your friend anymore. While looking for him you went back to the entrance of the villa. Here, two men and one woman were having a conversation, but none of them paid you any attention. You went into the next room which seemed to be a private living room with a TV and a fireplace. Just as you wanted to turn around to leave the room, you saw a diamond necklace on the side table next to the door. The same one you were marvelling over at the beginning of the party.

You picked up the necklace and looked at it closer. Suddenly, the door behind you was opened and you let the necklace slip into your jacket/gown. Your best friend stood in the doorway, he had been looking for you as well. Together, you went through the entrance back into the garden. The two men that had been standing there were observing you carefully. One of them was tall and had black hair and the other one was a little shorter and bald. Both were wearing black suits and were still talking to a woman in a dark red gown. Then you were back in the pavilion and said goodbye to the host. Shortly after, you and your friend left the property while the necklace was still in your jacket/gown.

Two days later, the police knock on your door and arrest you on suspicion of theft. They take you to the police station and put you into a small room with a table and three chairs. Now, you are waiting for them to start interviewing you.

You decide that you will not confess to the crime.
Your task is to prepare for the interview. You will need to be able to provide plausible answers to the interviewer's questions. Just staying silent or saying no comment will not work. Try to come up with a cover story that will explain any evidence the police may have against you so you are able to answer questions they might ask.

Appendix B: *Introduction to the interviews*

Control condition:
Hello (Name of the participant),
My name is (Name of the interviewer). In this interview, I will ask you several questions. All these questions refer to a theft that we are sure you committed on the 15th of April, in the house of the building contractor Mr Smith. We know that you took the necklace so there is no use denying it.
I want you to answer my questions in as much as detail you can, additionally, I would recommend you to stick to the truth. If you think you have already answered one of my questions please answer anyway. We want to make sure that we really get all the information we need from you. Is everything clear right now?

Minimization condition:
Hello (Name of the participant),

My name is (Name of the interviewer). In this interview, I will ask you several questions referring to a theft that we are sure you committed on the 15th of April, in the house of the building contractor Mr Smith. We know that you took the necklace so there is no use denying it.

We also know that you have a lot of debt and the necklace could be enough to pay your debt. Everyone would understand that, I mean, we would all be tempted. Especially because Mrs Smith just left such a valuable necklace lying around. No one is angry with you because of this. It's not like the Smith's aren't so rich the loss of the necklace would matter to them financially.

I want you to answer my questions in as much as detail you can, additionally, I would recommend you to stick to the truth. If you think you have already answered one of my questions please answer anyway. We want to make sure that we really get all the information we need from you. Is everything clear right now?

Maximization condition:

Hello (participant),

My name is (interviewer). In this interview, I will ask you several questions referring to a theft that we are sure you committed on the 15th of April. We know that you took the necklace so there is no use denying it.

I hope you understand how serious this situation is for you. You have abused the trust of the host, disregarded the privacy of the victim and stolen something that means a lot to her. She is really upset by what you have done. Right now you are looking at a very severe punishment. So I need you to do the right thing and cooperate with me now.

I want you to answer my questions in as much as detail you can, additionally, I would recommend you to stick to the truth. If you think you have already answered one of my questions please answer anyway. We want to make sure that we really get all the information we need from you. Is everything clear right now?

Appendix C: *Interview Script*

1. Tell me everything that happened on the night of April 15th from your perspective.
2. Tell us how you know the Smiths and why you were at their party.
3. The Smiths tell us you were staring at Ms Smith's necklace at the start of the evening. Can you explain why that was?

4. Several of the guests say you barely interacted with anyone. Can you explain why you were at this party if you had no interest in talking to people?

5. Ms Smith says she was sure she left her necklace in her living room. We have witnesses saying they saw you walk into the living room alone. Can you explain why you entered this private room?

6. Tell me everything you did in the private living room, step by step.Is there anything else you would like to add for your defence?

Appendix D: *Informed consent*

Informed Consent to Participate in Research

University of Twente

Study title: Experiences during a police interview

Researchers: Hannah Olden and Ina Greiten

What is the purpose of this study?

We want to gain a better understanding of the interaction between police interviewers and suspects.

Therefore, we are inviting you to read a script that describes a theft. You will be asked to imagine that you were the person that steals this item. Afterwards, you take part in a mock investigative interview where your task is to try to convince the interviewer that you are not guilty of the crime. Lastly, we ask you to fill out a questionnaire for our research. This research is completely voluntary. If you do not feel comfortable with proceeding in this study, you can always let us know that you would like to drop out.

Compensation: 1 Sona credit if you are a student of the University of Twente

Possible risks: You will be interviewed as though you were the suspect of a crime. This may be stressful. If you find this too stressful you can withdraw, even in the middle of the interview, and you will not be asked to explain why.

How long will it take?

The study will take about 40 minutes in total. This includes the reading of the crime script, taking part in the interview and answering the questionnaire. The interview takes about 10 minutes. Filling out the questionnaire can be done in approximately 15 minutes.

Confidentiality and Data Security

You will be assigned a code number that will protect your identity. All data will be kept in secured files. The only identifying information we will gather for purposes of communication is your email address, which will not be linked to the questionnaire. Over this channel, you will receive your participant number and links to the questionnaire.

The interviews will be recorded and transcribed. We will use those transcripts and the coded data in order to analyse them. Results of this analysis will be shared in the Bachelor theses of the researchers and may be presented in academic publications or at academic conferences. The anonymised transcripts and coded questionnaire data will be kept on the servers for the online survey software (Qualtrics) and the secured student OneDrive accounts of the researchers (GDPR compliant) for the duration of the study. After that, they will be stored on the password protected university drive of the supervisor. Anonymous data may be made available to the scientific community by being hosted on the open science framework (https://osf.io/), however, we reiterate that you will not in any way be personally identifiable. The raw research data will be kept for at least 10 years as required by the Netherlands Code of Conduct for Scientific Practice. The videos themselves will also be stored for auditing purposes, but will not be made public without your explicit permission. We will ask you at the end of the study if you are happy for us to use your video to present this research. You are completely free to refuse this permission, and then your video will never be made public.

The researchers will have access to the coded questionnaire data with only your participant number. Furthermore, we will have access to the recordings and the transcribed interviews. Our supervisor will have access to all data and transcripts in order to inspect our study and store it securely.

You can ask for rectification or erasure of your personal data from our study so long as you provide your participant number because this is the only way the researchers will be able to identify your data. If this should be the case, please let us know before the 16th of May. This research is approved by the BMS Ethics Committee of the University of Twente.

Questions about the research, complaints, or problems

If there are any issues or questions at any point during the study, or you would like to withdraw from your participation, please contact either

h.olden@student.utwente.nl

or i.greiten@student.utwente.nl

or our supervisor **s.j.watson@utwente.nl**

If you would like to file a complaint, please contact ethicscommittee-bms@utwente.nl

Agreement to Participate

Your participation is completely voluntary, and you can withdraw at any time.

You can take part in this research if you:
• are at least 18 years old
• are able to speak English or German
• think you are not distressed by taking the place of a suspect in an investigative interview

If you meet these criteria and would like to keep taking part in this research, you are asked to agree before the interview. By clicking below, you agree to the conditions explained above and give permission for the use of your data.

Appendix E: *Debriefing*

Debriefing

Thank you for taking part in this study. The type of interview we held with you today was guilt-presumptive, which means that the interviewer acted as though you were guilty from the beginning. This type of interview is generally considered coercive and is therefore illegal in most western European countries. Nevertheless, in some other countries, especially in North America, accusatory interviews are still commonly used. In this study, we wanted to better

understand two specific coercive tactics used in interrogations, which are minimization and maximization.

The minimization tactic includes the interviewer showing understanding for the suspect and giving them moral excuses, in some of our interviews the interviewer said "I understand that you would be tempted to take the necklace to get rid of your debt."

Maximization is used when the interviewer makes the suspect feel very guilty for harming the victim and the impact of the crime is exaggerated. For example, some of the interviewers said "You know what you did was inexcusable." There was also a neutral condition where no specific tactics were used.

In this study, we aimed to find out the influence of minimization and maximization on four different variables. We are looking at how much information the participants provided in each of the three conditions. Furthermore, the perceived risk and benefit of providing information to the interviewer was analysed, as well as the level of trust and rapport between suspect and interviewer. Therefore, we will analyse the recorded data as described in the beginning. If you are interested in the results, you can send an email to the addresses below to receive a summary of the overall project findings. Unfortunately, it is not possible to supply you with individual reports of your own performance during the interview or your scores on the scales.

If you still have any questions or do not want your data to be used in this study, please email either

h.olden@student.utwente.nl or

i.greiten@student.utwente.nl

with your concern and your participant number.

If you are willing to allow us to use the recording of your interview to illustrate this research please click this box (OPTIONAL)

Appendix F: *Trust questionnaire*

To what extent to you agree/disagree with the following statements?

Ability

The interviewer seemed very capable of performing their job

I get the impression the interviewer would be successful at the things they try to do The

interviewer seemed to have much knowledge about how things should be done I feel very

confident about the interviewer's skills

The interviewer seemed to have specialized capabilities

The interviewer seemed to be well qualified

Benevolence

The interviewer seemed very concerned about my welfare

My needs and desires seemed very important to the interviewer

I got the impression the interviewer would not knowingly do anything to hurt me The

interviewer seemed to really look out for what is important to me

I got the impression the interviewer would go out of their way to help me

Integrity

The interviewer seemed to have a strong sense of justice

I didn't have to wonder whether the interviewer would stick to their word

The interviewer seemed to try hard to be fair in dealings with others

The interviewer's actions and behaviours were not very consistent

I like the interviewer's values

Sound principles seemed to guide the interviewer's behaviour

Appendix G: *Coding scheme*

Table 2

Coding scheme for information provision

Main Code	Sub code	Definition
Max	The friend Max	The suspect has a friend named Max.
Invitation	Max's Invitation	Max has invited the suspect.

	Call	Max has called the suspect.
	Morning invitation	Max has called and invited the suspect in the morning.
	Reason to go	The suspect just went to the party for the sake of their best friend Max.
Acquaintance	Max and Mr. Smith	Max knows the Smith (well).
	Participant and Mr. Smith	The suspect doesn't know the Smiths.
Building contractor	Building Contractor	Mr. Smith is a (successful) building contractor.
Bad Mood	Bad Mood	The suspect was not in the best mood
	Company success	The suspect's own company is not going well.
	Loans	The suspect has problems paying back the loans.
Drive to the party	Drive to the party	The suspect drive together with Max to Mr. Smith party
	Clothes	The suspect put on their best clothes.
Arrival	Personally greeting	Mr. Smith and his wife greet them personally.
	Entrance	They greet the suspect and Max at the entrance of the villa.
	The invitations	An employee had taken the invitations/ they had to show their invitations
Party	Place of the Party	The party took place in the garden/ garden pavilion
	Conversations	The suspect had a couple of superficial conversations with strangers.

Wish to go home	Plan to go home	At 11 pm/later the suspect wanted to go home.
	Friend disappeared	The suspect was not able to find his Friend anymore when he wanted to go home.
Back to the villa	Searching for his friend	The suspect has started to search for his friend.
	Walkthrough an unknown room	The suspect went back to the villa and walked into an unknown room.
Stranger Persons	Three persons	In the entrance hall were two men and one woman.
	Conversation of the persons	The three persons in the entrance hall talk with each other
	Men Nr. 1	One man was tall and had black hair.
	Men Nr.2	The second man was a little shorter and bald.
	Women	The woman wore a red dress.
Living room	Tv	In the living room was a TV
	Fireplace	In the living room was a Fireplace
Necklace	See the necklace	As the suspect wanted to leave the room they saw the necklace.
	Place of the necklace	The necklace was on a (small) table next to the door.
	Taken in hand	The suspect has taken the necklace in hand.
	Looking closely	The suspect has looked at the necklace more closely.
Max find the suspect	Door opens	The door behind the suspect was opened.

	Max find the suspect	Max/the Friend stand in the door. Max/the Friend has found the suspect.
Going home	Goodbye	The suspect has said goodbye to the host.
	Stealing the Necklace	The suspect had the necklace in his jacket/gown as he drove home.
	Driving home	The suspect drives home together with his friend.

Table 3

Coding scheme for incriminating information provision

Main Code	**Sub code**	**Definition**
Company success	Company success	The suspect's own company is not going well.
	Loans	The suspect has problems paying back the loans.
Back to the Villa	Walkthrough an unknown room	The suspect went back to the villa and walked into an unknown room.
Necklace	See the necklace	As the suspect wanted to leave the room they saw the necklace.
	Place of the necklace	The necklace was on a (small) table next to the door.
	Taken in hand	The suspect has taken the necklace in hand.
	Looking closely	The suspect has looked at the necklace more closely.

Stealing the Necklace	The suspect had the necklace in his jacket/gown as he drove home.