

**Communication Errors in Suspect Interviews: The Effects on the  
Relationship between Suspect and Interviewer**

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### **Abstract**

Prior studies show that a communication error does influence rapport negatively, especially if it is a judgment error (Oostinga et al., 2018). However, research did not identify yet the effect of multiple errors. This paper aims to fill this research gap and test if more errors affect rapport more negatively and how agreeableness might moderate this relationship. The study design included an experimental between-subject design with 36 participants. An in-person interview and a follow-up survey about rapport and the personality trait of agreeableness were conducted. The independent variable number of errors (zero errors, one error, five errors) and the dependent variable rapport were introduced. The personality trait of agreeableness worked as the moderator variable. Contrary to the expectations, the results showed that even though the three conditions differed in their perceived errors, the number of errors did not influence the level of rapport. Furthermore, agreeableness also did not moderate any effect of errors on rapport. Implications for further research are expanding the interview time and the revision of the choice of errors introduced in this study.

*Keywords:* Errors, Rapport, Personality Trait, Investigative Interviews, Crime

## Introduction

Solving crimes effectively relies on the right technique and approach. Crucially, this is done by investigative interviews to gather as much reliable and truthful information as possible. Investigative interviews can differ in their nature of approach and the most common distinction is made between the accusatory interview approach and the humanitarian approach (Meissner et al., 2012). The accusatory approach describes the systematic and intense interrogation of a suspect by using manipulation techniques and accusations. The humanitarian approach is a rapport-based method where a police officer or interviewer questions the suspect about the crime the person is accused of by using attentive listening skills. Vrij et al. (2014) emphasize that the humanitarian approach has been shown to be more effective compared to the accusatory approach because it uses exploratory and open questions which ensures more complete and factual correct responses of the suspects. Furthermore, the humanitarian interview style leads to fewer false confessions. Applying this interview style is important to secure a smooth investigation process and solve the crime. Many strategies introduced in the humanitarian approach, such as the right communication or the right setting, play an important role. According to Bull (2023) however, one of the most important is rapport.

Rapport-building describes establishing a relationship between two parties. It is an important factor that influences the outcome of an investigative interview (Bull, 2023). By establishing rapport, the suspect feels more secure and comfortable providing meaningful and accurate information. Furthermore, May et al. (2020) argue that it influences the decision-making process of providing truthful information. A correct application of rapport-building methods within investigative interviews is therefore important to ensure a good relationship between the suspect and the interviewer, but also for solving the crime successfully.

Establishing a connection with interviewees is not always easy, although certain personality traits of the interviewer like agreeableness can have a positive impact (Wang et al., 2009). Rapport-building techniques and agreeableness share the same characteristics of being cooperative and empathic. Medler-Liraz (2020) argues that individuals who are agreeable are more likely to build rapport, even in situations where interactions may be less polite. Though some interactions might occur fluently, some deal with errors. More specifically, errors like miscommunication, misunderstanding or wrong information can happen naturally. Rapport-building might be interrupted by those errors, and the question arises of how and to what extent it influences the relationship between two parties.

Studies on the impact of errors on rapport during interviews have been conducted, but they have not taken into account the impact of multiple errors or the potential moderating effects of participant personality. This study aims to dive deeper into the understanding of multiple errors in a suspect interview and how they influence the relationship between the suspect and the interviewer. Errors from the interviewer might inhibit the development of rapport, but this negative effect might be reduced when interviewees are high in agreeableness. Since rapport includes characteristics like cooperation and empathy, the research will include the personality trait agreeableness and its effects as a moderator variable between the number of errors and rapport. The research question arises: *How do multiple errors in investigative interviews affect rapport, and to what extent does the personality trait of the suspect moderate this relationship?* In the following part, rapport is being introduced and the connection with investigative interviews is made. Based on relevant literature, errors in the context of investigative interviews and their relation to rapport are discussed. Lastly, agreeableness and the connection with rapport is evaluated and possible hypotheses are considered.

### **Investigative Interviews and Rapport**

Rapport-building is one of the most important techniques when it comes to investigative interviewing (Bull, 2023). The most popular theoretical model is attributable to Tickle-Degnen and Rosenthal (1990), who conceptualize rapport as being a fluid framework of shared attention, positivity, and coordination. *Attention*, which describes the focus on the communication partner, builds the fundament of an interaction. With that, it also builds the fundament of having a relationship with the conversation partner. *Positivity* describes the positive atmosphere within that discourse, also by feeling understood and secure. Lastly, *coordination* ensures that both parties are balanced in means of equal share of speech and feeling synchronized with each other.

Building rapport is a process that happens in everyday life and is changeable throughout time, evolving both over the course of the relationship and within specific interactions (Tickle-Degnen & Rosenthal, 1990). Why rapport-building is so effective in investigative interviews lies in the reason that through rapport the suspect is more likely to disclose beneficial information to the interviewer (Gabbert et al., 2021). The warm and welcoming presence of the interviewer elicits communication flow and collaboration. Moreover, Gabbert et al. (2021) argue that this can be achieved primarily through the right framework and systematic approach.

The ability of rapport-building is a common strategy in investigative interviews used around the world, but the first interview method that rejected the accusatory approach is the PEACE model. The PEACE model depicts Planning and Preparation, Engaging and explaining, Accounting, Closure, and Evaluation (Bull, 2023). Not only in the UK but also across Europe, the effectiveness of this model has been taught. The Netherlands and Germany use similar approaches that are highly related to the PEACE model (van Beek & Bull, 2023; Clemens et. al., 2019). Within these models, police officers or interviewers are specifically asked to follow a set of skilled activities. When correctly applied, rapport-building techniques can help to decrease the likelihood of wrong information or erroneous recall of events (Vallano & Compo, 2011). Unfortunately, police officers are not always acting towards the proposed strategies, and even some do not believe in the importance of rapport. According to Bull (2023), police officers ranked rapport on the 7th place when they were being asked what skills are most effective when it comes to investigative interviews. Incorrect or ineffective interrogation techniques can develop, and errors are more likely to occur.

### **Errors in Suspect Interviews**

Regarding negotiations, Oostinga et al. (2018) identified the classification of an error into three categories. A *factual* error is an error that contains wrong information, for instance, addressing the suspect with the wrong name. A *judgment* error describes the inability of the interviewer to recognize the feelings or emotions of the suspect correctly and attribute a judgmental fact. Attributing a lack of trustworthiness to the suspect would be an example of a *judgment* error. Lastly, a *contextual* error describes failed practices of the police department for example using inappropriate jargon. These error types were not only recognised in negotiations but also in interviews (Oostinga et al., 2018). Oostinga et al. (2018) identified that a judgment error has a more detrimental effect than a factual error since people believe that a factual error is accidental and perceive a judgment error more as an attack on the feelings of a suspect. The perceived intention of the error might have an influence on the effect the error produces. However, these negative consequences can not be foreseen nor controlled.

The negative effects on the suspect might be more harmful and may influence the following procedure of the interview. Kebbell et al. (2006) identified that 52.6% of the interviewed suspects had not decided yet if they wanted to confess or deny the crime. More specifically, the perception of the interview can influence their decision to confess or deny (May et al., 2020). Humanitarian interviews with an open mind encourage suspects to provide

truthful and accurate information (May et al., 2020). Therefore, the handling of errors is a crucial and important part of establishing or keeping rapport, in order to successfully conduct interviews.

The type of error not only determines its impact on rapport but also dictates how police officers choose to handle it once it has occurred irreversibly. If the interviewer notices an error during the interview, they might try to minimize its impact by diverting attention to another topic before the suspect notices (Oostinga et al., 2018). Nevertheless, some suspects still notice that an error occurred. Research by Alison et al. (2013) indicated that the ignorance of the error by the police officer can harm rapport when the suspect notices the error. Similarly to the research of Oostinga et al. (2018), Alison et al (2013) focus on the effect of one error. The question arises as to how multiple errors would influence the perception of a suspect in an investigative interview and if it would have more detrimental effects on rapport than one error.

However, yet research only established evidence for a single error, and not what effect multiple errors have on rapport. It is expected that rapport will significantly decrease when the number of errors are increased. More errors could elicit suspicion and decrease trust in the interview setting. The suspects could question their expertise and inhibit building a relationship with the police officer. This paper will establish a deeper understanding of this shortcoming with the following hypothesis:

*H1: In an investigative interview, making errors will negatively impact rapport. Moreover, multiple errors will negatively impact rapport more than one error.*

### **Personality and Rapport**

People differ in their actions based on their personality (Kumar, 2021). These individual differences in personality traits can be assessed through various questionnaires, but the most popular one used is the Big Five questionnaire (Hee, 2014). It describes the diversity of personality in five main character traits: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. For instance, agreeableness depicts a person based on their level of politeness, obedience, and compassion, which promotes peaceful interactions (Caprara et al., 2010). Moreover, it takes the form of sociality, which promotes cooperative behaviour in social situations, and empathy, which enables people to comprehend and relate to the feelings of others.

Hudson et al. (2018) argue that different personality characteristics interact differently with other conversation partners. More precisely, levels of agreeableness from both parties could either collide or get along very well. People who score high on agreeableness tend to

seek and maintain peaceful and positively fulfilling relationships with others (Sukenik et al., 2018). Furthermore, Medler-Liraz (2020) argue that rapport-building is easier for people who score high in agreeableness and are subsequently searching for more positivity in encounters. Importantly, DeLisi and Vaughn (2015) demonstrated that people that score low in agreeableness are more likely to commit a crime. While research has not directly identified how the suspect's personality affects rapport, previous studies suggest that personality traits like agreeableness could influence the relationship between rapport and the number of errors made. This paper will address this gap with the following hypothesis:

*H2: The personality trait "Agreeableness" moderates the relationship between the number of errors and rapport by mitigating their negative effects. More specifically, I expect that people scoring high on Agreeableness will have a less negative impact on rapport than people scoring low on Agreeableness, in the five errors condition compared to the zero errors condition. This suggests that agreeableness acts as a buffer, reducing the negative effects of mistakes on rapport and so promoting more peaceful interactions between people.*

## Methods

### Design

The study included an experimental between-subject design to investigate the effect of errors on rapport. It was hosted on Qualtrics. Furthermore, agreeableness was introduced as a moderator variable between the independent variable number of errors (in the three conditions zero errors, one error, five errors) and the dependent variable rapport. Participants were randomly assigned to one of the three conditions. The study entailed a vignette that described a minor crime and a following video in which the participant had to imagine themselves in. An interview proceeded and the study was finished with a survey. Other researchers in this study focused on other dependent variables, for example, *willingness to provide information* or *trust*, and for that the interview part was introduced. For the purpose of this paper, the focus lies on the dependent variable rapport, which was investigated in the survey after the interview. The study was approved by the BMS Ethics Committee with the reference number 240514.

### Participants

This study involved 36 participants (18 = female, 18 = male) between the age of 19 to 28 from the University of Twente. The mean age was 22.7 ( $SD = 2.4$ ) and most of the participants were of German nationality (8 = Dutch, 18 = German, 10 = other). The participation was voluntary, and the students received SONA points in return. The SONA system is an arrangement where students receive participation credits when they complete

studies from other researchers. These credits are needed to graduate from their study. Further recruitment has been done by advertising through various online platforms (WhatsApp and Instagram) and word-of-mouth. The participant needed to have sufficient English skills. If the participant completed the study and had no issues during or after the interview with understanding the instructions, we assumed a sufficient English level. This is important, because our study entails the interview part where the students needed to answer the questions verbally and the survey part in which they needed to understand the questions in written form. All participants in the final sample gave their consent in written form prior to the execution of the study.

## **Materials**

### ***The Vignette***

The vignette describes a mock crime that has happened in a clothing store in Enschede (see Appendix A). The information included the financial and living situation and the reason for the stealing. As part of the reason, we described that the person in the scenario met someone at a party and wanted to go out with them. Therefore, the person needs a new shirt. The person does not have a job anymore and the financial situation is unstable but the urge to go out with that someone from the party is so strong that the person decides to steal that shirt. With that, we tried to increase the intrinsic motivation and justify the stealing. Moreover, the instructions were given to deny the crime until they felt they have no reason anymore to do so. This was done to examine the impact of errors when dealing with suspects who are hesitant to admit to the crime, even though admission is not prohibited.

### ***The Video***

To make the scenario more imaginable for the participants, the study design includes a video in the point of view format (POV) that was shown to the participants right after the scenario. According to Mangiulli et al. (2018), POV enables the person to replicate memories better when they have watched a video, rather than reading it. Even more effective for the imagination is the POV perspective.

The video showed a person standing in a clothing shop, while wearing black gloves, jeans and a jacket. It was not identifiable if the person was female or male because our sample entailed participants of both genders. With that, we wanted both female and male participants to feel able to imagine themselves as the thief. The person in the video looked around the store and browsed through the shirts. After that, the person decided for a shirt and looked at the price tag. The perspective looked around like the person would look for

personnel. Making sure no one was there, the person opened the bag fast and put the shirt in it. Then the person walked towards the exit door.

### ***The Interview***

Three conditions were tested among the randomly assigned participants. The basic structure of the scripts included first the questions about their presence in the shop and about the crime that was committed (see Appendix B). Questions like “*Did you notice anything strange that day?*” or “*How did you come home?*” were asked to gain more insight. Based on the condition, the interview scripts were adjusted. For the zero errors condition, the script entailed no errors and asked correct questions in the interview. A correct question was for example: “*Did you steal it because you did not have enough money?*”. According to the scenario, this information is correct, and the suspect was indeed struggling with money and therefore stole the shirt. In the one error condition, a judgement error was introduced, namely: “*So you stole it because you were bored.*”. The interviewer made a judgement regarding the person's reason of stealing, which is not the correct one. For the five errors condition, three factual and two judgement errors were introduced (Table 1).

**Table 1**

*Overview about the Type of Errors, the Sentence, and the Error in the Five Errors Condition with the Correct Item.*

Type of error	Sentence	Error	Correct Item
Judgement Error	So, you stole it because you were bored.	Bored	Lack of Money
Judgement Error	Were you too lazy to do so?	Lazy	Ashamed
Factual Error	We were informed by the Appel en Ei of your presence during the last days.	Appel en Ei	ZiZay
Factual Error	We got informed by the shop about your presence on the day the jeans got stolen, could you tell/explain what happened?	Jeans	Shirt
Factual Error	Seems like you live with your parents?	Live with parents	Live on Campus

### ***Rapport Measurement***

The questionnaire used to measure the dependent variable rapport is the Rapport Scale for Investigative Interviews and Interrogations (RS3i) (Duke et al., 2018) (see Appendix C). This questionnaire was used because it specifically measures rapport in the context of investigative interviews. Other rapport questionnaires focus on rapport in daily interactions, which is not suitable for this study design. The RS3i consists of 21 items divided into 6 scales (Attentiveness, Trust/Respect, Expertise, Cultural Similarity, Connected Flow, Commitment to Communication) and answers can be given on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The overall rapport score including all scales will be measured to account for a thorough evaluation of rapport in the setting of an investigation interview. The score was calculated using the average of all items. Scoring high on the scale subsequently means perceiving a high level of rapport. From the sample obtained, Cronbach's Alpha for the Rapport questionnaire showed a good reliability of  $\alpha = .88$ .

### ***Personality Measurement***

Personality was measured using the Big Five Personality Questionnaire (BFPQ) to evaluate a person's personality qualities (John & Srivastava, 1999). More specifically, only the Agreeableness subscale of the BFPQ was the main focus for this investigation to address the second hypothesis if this specific personality trait moderates the relationship between number of errors and rapport (see Appendix D). With a Likert scale, participants indicate how much they agree or disagree with each statement (1 = strongly disagree to 5 = strongly agree) on 9 items. The score was calculated using the average on all items and a higher score indicated a higher level of agreeableness. Some statements, like "*I am sometimes rude to others*" are reversed scored. The validity assessments showed satisfactory results. Cronbach's Alpha for the Agreeableness questionnaire showed a reliability of  $\alpha = 0.5$ . Furthermore, the Extraversion subscale of the BFPQ was utilized as well, but it was not examined. This approach was used to make the study's emphasis on agreeableness less apparent to participants to lower the bias.

### ***Manipulation Check***

To check whether participants noticed the errors in the interview we introduced an open question where they could indicate how many errors they noticed. Ideally, according to the conditions, participants in the zero-error condition noticed no errors, in the one-error

condition one, and in the five-error condition five. We decided to question this at the end of the study purposely to not bias them beforehand, so the hypotheses are not revealed.

### **Procedure**

After entering the room, the participant received the informed consent form on the computer. This form entailed information about the study, the rights of the participants and the information that they can withdraw at any time. The true purpose of the study was hidden under the guise of using interview styles in investigative interviews, because we assume that errors should be noticed naturally, rather than biasing the participant who is then purposefully searching for those. The vignette of the scenario (see Appendix A) is presented on the screen with instructions for the participants to imagine themselves in the scenario. The participant was then able to proceed to the next screen, where the video was shown in which an unidentifiable person steals a t-shirt at a store. After the video a slide was shown which indicated that now the interview will start. In that, the interviewer asked questions to the participant (suspect). The experiment was guided by two researchers, one that gave the instruction and the laptop with the informed consent and survey questions to the participant, and one researcher acting as the interviewer. It was made sure that the interviewer did not know the participant beforehand to not bias the natural relationship. The questions entailed either zero, one, or five mistakes in the form of a judgement or a factual error and the participant got randomly assigned to one of these three conditions. If the participant agreed, the dialogue was audio recorded to measure the variable “actual information provision”. As before mentioned, this analysis and discussion of the outcome were performed by another researcher. The participants received the questionnaires in the order of first rapport, then agreeableness and then the manipulation check. The rapport questionnaire came first so the participant still has the memory of the interview in mind. In the manipulation check, the participant was asked how many errors they noticed in the investigative interview made by the police officer. Lastly, the participant was debriefed.

### **Data Analysis**

Before analysing the data, adjustments have been made. Missing values were not recorded since a response in Qualtrics was needed to proceed with the next questions. Moreover, the manipulation check was analysed. Participants who did not fill out the correct number of errors in the condition they had been assigned to, were analysed after analysing the manipulation check. If participants noticed five errors in the zero errors condition and zero errors in the five errors condition, they would have been excluded. Fortunately, this was not

the case, and no participant was excluded. Receiving the final dataset, the assumption tests of linearity, homoscedasticity, normality, and independence have not been violated.

To test the effect of the independent variable *number of errors* with the three conditions zero errors, one error, five errors on the dependent variable *rapport*, a one-way ANOVA was done. With this statistical method, it is possible to check whether they are significant differences in *rapport* across the error conditions. Post-hoc tests have been conducted to identify how and which groups differ from each other. The Tukey method was used to correct the value for multiple tests. Before the moderation analysis was done, the main effects of the variable condition and agreeableness were tested. After that, the moderation analysis followed with the same independent and dependent variable for the investigation of the moderator variable *agreeableness*, which is hypothesized to have an effect on the relationship between *number of errors* and *rapport*. Follow-up tests like simple slope comparisons were conducted as exploratory analyses.

## Results

### Descriptive Statistics

The mean score of *rapport* was 3.00 ( $SD = 0.65$ ) and of agreeableness was 3.80 ( $SD = 0.41$ ). Both variables were measured in a five-point Likert Scale and were normally distributed. The noticed errors from the manipulation check showed an average mean of noticed number of errors of 1.42 ( $SD = 1.20$ ). Unexpectedly, no correlation was found between *rapport* and agreeableness ( $r = -.04, p = .80$ ), as well as between *rapport* and noticed errors ( $r = .12, p = .50$ ) or agreeableness and noticed errors ( $r = -.22, p = .20$ ).

### Manipulation check

Before proceeding with the one-way ANOVA to check whether the independent variable number of errors have an effect on the dependent variable *rapport*, the assumptions have been tested. It revealed that the assumptions have been violated and the data of the noticed errors is not normally distributed. In this case, Kruskal-Wallis's test was needed to see the differences between the three conditions. A significant difference between the three groups of errors was found,  $\chi^2(2, N = 36) = 14.99, p = .001$ . The median of the zero errors condition is 1 (IQR = 0, 2), for the one error condition 1 (IQR = 0, 1) and for the five errors condition 3 (IQR = 2, 3). Surprisingly, participants in the zero errors condition reported more often an error than participants in the one error condition. It is clearly seen that the median of the three error conditions lies significantly above the zero errors and one error condition. A follow-up test, namely the Man-Whitney test with Bonferroni correction was applied to see where the significant difference lies. The zero errors condition showed no significant results

compared to the one error condition ( $p = 1$ ), whereas the comparison between the zero errors and the five errors condition ( $p = .009$ ) and the one error and five errors condition ( $p = .001$ ) was significant.

After debriefing, some participants pointed out that they thought their perceived error was related to the police officer's knowledge of the suspect's financial situation (see Appendix B: Interviewer question: “So you stole it because you did not have enough money?”). People perceived some disruptions or assumptions as one error from the police officer. This could explain why people reported more errors in the zero errors condition than in the one error condition.

### **Effect of Errors on Rapport**

The first hypothesis addressed the question of whether five errors in suspect interviews have a more negative effect on rapport than one error. The means and standard deviations of each group can be found below in Table 2. Before the conduction of the one-way ANOVA, the assumptions were checked to see if the data was normally distributed and to ensure homogeneity of variance. No violation has been found and therefore, an ANOVA analysis of the independent variable number of errors and the dependent variable rapport has been made. The output showed a non-significant result,  $F(2,33) = 0.16, p = .86$ . Even though the result showed non-significance, a planned comparison as the posthoc test was carried out to see how the three different groups differed from each other. No significant effect was found and the output can be found in Appendix E (all  $F$ 's  $< 3$ , all  $p$ 's  $> .05$ ).

**Table 2**

*Means and Standard Deviations of the Three Conditions of the Independent Variable Number of Errors on the Dependent Variable Rapport.*

Number of Errors	<i>M</i>	<i>SD</i>
Zero errors	2.92	0.62
One error	3.06	0.62
Five errors	2.93	0.75

### **Moderation of Agreeableness**

The second hypothesis refers to the question of whether the personality trait “Agreeableness” moderates the relationship between the number of errors and rapport by mitigating their negative effects. First, a linear regression model was run to evaluate the

effects of the Number of Errors and agreeableness on rapport. The main effect of the independent variable Number of Errors was not significant,  $F(2,30) = 1.26, p = .30, b = 2.76, SE = 1.8$  as well as the main effect of agreeableness,  $F(1,30) = 0.49, p = .49, b = 0.04, SE = 0.46$ . Similarly, the interaction effect between condition and agreeableness was not significant,  $F(2,30) = 1.19, p = .32, b = 0.04, SE = 0.46$ . Still, a moderation analysis was run to see the different moderation effects per group, and the output can be found in Appendix E. No significant result was found for the personality trait agreeableness moderating the effect between the number of errors and rapport for the one error condition and for the five errors condition. The second hypothesis that five errors moderate more effectively than zero errors, can be rejected.

### Exploratory Analysis

As part of the moderation analysis conducted before, it was checked how the three conditions differ when comparing them to each other. The simple slope analysis was conducted and revealed the non-significance of agreeableness moderating the effect of each condition on rapport. Appendix E shows that no significance was found among the three conditions.

Further exploratory analyses have been done to check for other possible relationships. As the study was conducted with three other researchers with their dependent variable of interest, it was checked whether rapport correlated with one of the other variables. Table 3 shows that rapport correlated most with trust ( $p < .001$ ), followed by willingness to provide information ( $p < .01$ ). The correlation between agreeableness and willingness to provide information ( $p = .45$ ), trust ( $p = .74$ ), noticed errors ( $p = .50$ ) and rapport ( $p = .80$ ) was rather low.

**Table 3**

*Means, Standard Deviations, and Correlation Coefficients of the Variables Rapport, Trust, Willingness to Provide Information, Agreeableness, and Noticed Errors.*

	<i>M</i>	<i>SD</i>	Rapport	Trust	Willingness	Agreeableness
Rapport	2.97	0.65				
Trust	2.67	0.67	.88			
Willingness	2.32	0.86	.49	.45		
Agreeableness	3.80	0.41	-.04	-.06	.13	

Noticed Errors	1.42	1.20	.12	.02	.11	-.22
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### Discussion

The goal of the study was to assess whether multiple errors have a stronger negative effect on rapport and if agreeableness moderates the relationship between the number of errors and rapport. The hypotheses suggested that five errors in an investigative interview will have a more negative effect on rapport than one error. Moreover, it was hypothesised that agreeableness moderates the relationship between the number of errors and rapport in a way that they adverse to the negative impact of errors. This study revealed no significant difference between the number of communication errors and rapport. Furthermore, agreeableness does not seem to moderate the relationship between communication errors and rapport.

#### Effects of Errors on Rapport

Oostinga et al. (2018) found that one error, especially a judgement error does influence rapport negatively and threatens rapport building. Prior literature with one vs zero errors revealed a significant effect, therefore it was expected that at least one error would significantly impact rapport and even further, five errors would have a greater effect on rapport than one error. In this study, however, neither one, nor five errors could prove that errors seem to have an influence on rapport. The reason why these outcomes did not occur could lie in the reason that people could mostly not identify the errors in the one error condition and therefore also may not perceive them at all. Surprisingly, there was no difference in reported errors between the zero errors and one error group. Furthermore, people scored similarly on rapport across all three groups. The underlying cause may be attributed to the fact that the study design did not include an explanation of an error or what can be seen as an error in the context of investigative interviews. This was made on purpose, because we tried to control for the possible bias people may have when they start to search for errors instead of letting them occur naturally. The effect could have been manipulated.

However, further research can take this possibility into account and check for possible influences knowledge may have. More specifically, research could compare two groups. Group A receives an explanation of errors and/or an exercise where they have to identify errors before the initial interview. Group B would not receive information about errors,

similarly the same design as this study. With this method, the outcome will show if knowledge about errors would affect the noticing of errors and maybe as well affect rapport.

We explored what undermines the aforementioned argument in a discussion after the study was conducted. We asked participants what errors they noticed. In the majority of the cases, people in the five errors condition could only identify the factual errors (clothing store, item, living situation). The judgment error in the one error condition was not perceived as such. Rarely people identified the judgment error in the one error condition and the five errors condition. Hence, the connection can be made to Oostinga et al. (2018) findings. When factual errors are perceived as being less damaging to rapport compared to judgment errors, the effect of the five errors condition might be reduced immensely if the judgment errors were not even noticed. This is further substantiated by the findings of Keith et al. (2020), who found that minor errors are not noticed or easily forgotten about when the severity of the error is low. Perhaps the errors introduced in this study were not perceived as severe enough to have an impact on rapport.

To test this idea, future research could lay their focus on identifying the severity of different errors. For example, multiple judgment errors that differ in their severity can be introduced to participants. The participants could indicate to what extent they perceive this error as detrimental. In the context of suspect interviews, different levels of errors can be introduced and their affect on rapport measured to see if a difference arises between the groups.

One factual error in the five errors condition was a wrong store name in the interview. According to Ingram et al. (2012), people recognize facts better when they are familiar with it. To illustrate it better, in the scenario the shop name was ZIZAY. If the shop had been called ZARA, more people would have recognized it better and the effect might have been greater. ZIZAY is not a commonly known brand like ZARA and therefore, ZIZAY might not be enough recognized by participants.

### **Agreeableness and Rapport**

Agreeableness is characterized as being compassionate and having benevolence (Caprara et al., 2010). Having this set of traits, it was hypothesized that the participants scoring high in agreeableness would experience a lesser negative effect of multiple errors compared to a single error. However, this was not demonstrated by this study. One possible explanation might be that people were still in the role of the suspect in the scenario. They were asked to deny the crime they had been accused of first, which did not facilitate cooperation and rapport. Lemenager et al. (2020) identified that people imagined themselves

as a virtual avatar led to a dislocated self-image. The imagination could have influenced the participant in such a way that their dismissive role still had an effect on their perceived agreeableness about themselves.

Even though some people indicated average to high agreeableness scores, no correlation could be found between agreeableness and willingness to provide information. As mentioned in the intro, the personality trait of agreeableness constitutes of characteristics such as cooperation and empathy. An interesting finding is therefore, that agreeableness and willingness did not correlate at all. Situational factors, such as role-play crime in the current study, do show to have an impact on immediate behaviour (Fleeson, 2004; Sherman et al., 2014). Personality traits alone do not determine immediate behaviour, whereas it has an impact over the long term (Fleeson, 2004). This supports the argument that participants still perceived themselves in the role of the suspect during the theft scenario. In this short-term study, situational factors likely had a greater influence on questionnaire outcomes compared to personality traits.

An implication could be that the personality characteristic is measured before the interview, to not bias the participants. One item of the agreeableness subscale of the BFPQ was *“I like to cooperate with others”* could have triggered the memory of the interview because it was one of the most recent events that happened. The participant was asked to specifically not confess until they felt there is no more point in doing so. This would describe someone who is acting the opposite of a person who is agreeable and cooperative. To substantiate this with further literature, DeLisi and Vaughn (2015) argue that individuals with low agreeableness scores are more prone to engaging in criminal behavior. The assumption here could be that the solely imagination of situation could lead to a lower agreeableness score, as individuals may have been more inclined to consider criminal acts in that present moment. That role-taking can influence personality is shown by Li et al. (2021) who argue that taking the role of a leader let the individual be more consciousness in his personality.

### **Exploratory Analyses**

Further analyses were conducted to see whether other variables correlated with the variable rapport and agreeableness. Trust and willingness to provide information were highly correlated with rapport. As mentioned at the beginning of this paper, research found evidence that a humanitarian interview style influences the suspect in their decision to cooperate and provide information (May et al., 2020). Moreover, rapport builds the fundament to elicit information provision even greater (Abbe & Brandon, 2013; Gabbert et al., 2020). The findings show that rapport does correlate with willingness to provide information.

As expected, rapport and trust gave the highest correlation. This is because the items in Mayers' Trust Scale are similar to the items in the rapport questionnaire (e.g. Trust = "*The interviewer is very capable of performing his/her job.*"; Rapport = "*The Interviewer did his/her job with skill during the interview.*"). Therefore, they might test the same concept and are not distinctive enough from each other. Neequaye (2023) criticises this missing united definition of rapport. Some authors define rapport regarding positive aspects and some lay their focus on trust (Neequaye, 2023). Ultimately, the lack of one defined concept leaves room for interpretations and questions its validity.

### **Limitations**

As already seen in the study design, this research involved 36 participants. This equals 12 participants per group. Because of this small sample size, it is hard to draw general conclusions about the population. The expected results cannot be estimated because the statistical power is not sufficient. According to Cohen (1992), the sample size should have been at least 94 to make use of the statistical power.

Moreover, the whole study procedure lasted 20-30 minutes. That means the interview part took approximately five minutes, in which rapport should have been built. This timeframe is very short and probably was not enough to elicit a stable relationship with the participant. Interestingly, prior studies have found that the level of rapport can be transferred from the first meeting to the second meeting (Weiher et al., 2023). Moreover, it is possible to reestablish rapport in the second meeting when rapport fails in the first meeting. For follow-up studies, it can be crucial to implement more meetings and multiple interviews to increase more shared time with the interviewer, as this elicits rapport (Weiher et al., 2023).

One important implication is the reliability score of the agreeableness questionnaire. According to Tavakol and Dennick (2011), the Cronbach Alpha of the reliability testing should be above 0.6. This would mean that the items of the scale measure the same concept in question. However, in this study, the alpha was 0.5. It's possible that the study's agreeableness scale misrepresented the participant's actual agreeableness levels. Research could consider implementing other personality questionnaires with a higher alpha, to make better estimates about the sample.

Future research could dive more deeply into the effect of multiple errors on rapport when accounting for the implications in this study. It has raised empirical questions regarding the severity of the error and the correlations between rapport, agreeableness, trust, and willingness to provide information. Longer sessions with the interviewees, more personal

questions and giving the personality questionnaire before the interview could enhance the significance.

### **Conclusion**

In conclusion, this study investigated how multiple errors affect rapport and how agreeableness might moderate this relationship. Unexpectedly, it revealed that rapport was not associated with errors. Agreeableness was also not found as a moderator variable. Despite the insignificant findings, this study helps to raise more empirical research questions in the context of criminal psychology. Further research can explore how the severity of errors affects rapport, as this could explain why participants may not have noticed the errors. Moreover, it should consider the high correlations between rapport trust and willingness to provide information and the suggested follow-up studies. Researchers can further our understanding of how different severity types of errors affect rapport in investigative settings by addressing the limitations and utilizing more robust research designs. This will ultimately help to develop better techniques in crime solving.

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## Appendix A

### Scenario

You are a student and live in a student house on campus. To be able to pay your rent, food, clothes and go out you found work in a restaurant in Enschede. However, the restaurant had to close down because of financial issues after the COVID pandemic so one month ago you were fired. This month you already had to pay your rent and had to buy groceries and other things for the household. Unfortunately, you now are very low on your budget and you cannot spend a lot of money anymore or you will not be able to pay your rent this month.

You met someone at a house party which was organised by a few friends. You liked them a lot and you got along with them very well that evening. You asked this person out for a date. Since you've been single for a while you want this to work out. Therefore, you decide that you need new clothes for this date to give a good impression. However, you do not have the money to buy something nice. You have already borrowed some money from your friends at the last parties and you do not want to ask them because you are too ashamed of your situation. Nonetheless, you still go to the Zizay in Enschede first thing in the morning to see if they maybe have something which you could buy with the money you have left.

As you walk through the store you notice that the cashier is not focusing on you. Moreover, almost nobody is in the store since you went there shortly after the store had opened. You see a nice shirt that you like and want to wear for this date. Unfortunately, the price is more than you can afford but you remember that the cashier was not attentive to what was happening in the store. You take another look and see that they are still not giving attention to you. You also do not see any cameras which could film you and there seems to be no tag on the shirt. Quickly, you take the shirt and put it in your bag. Then you leave the store and cycle back to campus.

However, a few days later you get a letter from the local police station. They want to interview you about a shoplifting crime in which you are the suspect. You decide to go there, but you want to convince the police interviewer that you did not do this crime. However, you also decide that you might have to admit what you have done when there is no sense in denying it anymore.

## Appendix B

### Zero errors script:

Interviewer: Hello, what is your name?

S: ...

Interviewer. Welcome \* (correct) name, do you know why you're here?

S: ...

I: Yes, yes. We are just here to clarify a few details. We were informed by the store Zizay of your presence during the last days. Can you tell me what you were doing in the store?

S: ...

I: Did you have any interaction with the employees there?

S: ...

I: Did you hold any conversations with other customers in the shop?

S: ...

I: On that day, we received intel about a stolen shirt. We got informed by the shop about your presence on the day the shirt got stolen, could you tell/explain what happened?

S: ...

I: So, you stole it because you did not have enough money.

S: ...

I: Nonetheless, why did you not ask others for money? Were you too ashamed to do so?

S: ...

I: Did you notice anything strange that day?

S: ...

I: Were you aware of the cameras around the store?

S: ...

I: We have looked into your living situation. Seems like you live on campus?

S: ...

I: Ok, I have written it down.

S: ...

I: How did you get home?

S: ...

I: That would be enough for now. We'll be in touch regarding any further steps in the investigation. If you need to talk to a counsellor, the front desk can arrange a meeting for you. Thank you for your time.

One error script:

Interviewer: Hello, what is your name?

S: ...

Interviewer. Welcome \*(correct) name, do you know why you're here?

S: ...

I: Yes, yes. We are just here to clarify a few details. We were informed by the store Zizay of your presence during the last days. Can you tell me what you were doing?

S: ...

I: Did you have any interaction with the employees there?

S: ...

I: Did you hold any conversations with other customers in the shop?

S: ...

I: On that day, we received intel about a stolen shirt. We got informed by the shop about your presence on the day the shirt got stolen, could you tell/explain what happened?

S: ...

I: Did you notice anything strange that day?

S: ...

I: So, you stole it because you were bored. (*Judgment*)

S: ...

I: Nonetheless, why did you not ask others for money? Were you too ashamed to do so?

S: ...

I: Were you aware of the cameras around the store?

S: ...

I: We have looked into your living situation. Seems like you live on campus?

S: ...

I: Ok, I have written it down.

S: ...

I: How did you get home?

S: ...

I: That would be enough for now. We'll be in touch regarding any further steps in the investigation. If you need to talk to a counsellor, the front desk can arrange a meeting for you. Thank you for your time.

#### Five error script:

Interviewer: Hello, what is your name?

S: ...

Interviewer. Welcome, \* (correct) name do you know why you're here?

S: ...

I: Yes. We are just here to clarify a few details. We were informed by the Appel en Ei of your presence during the last days. Can you tell me what you were doing? (*factual – wrong store*)

S: ...

I: Did you have any interaction with the employees there?

S: ...

I: Did you hold any conversations with other customers in the shop?

S: ...

I: On that day, we received intel about stolen jeans. We got informed by the shop about your presence on the day the jeans got stolen, could you tell/explain what happened? (*factual – wrong item*)

S: ...

I: Did you notice anything strange that day?

S: ...

I: So, you stole it because you were bored. (*Judgment*)

S: ...

I: Nonetheless, why did you not ask others for money? Were you too lazy to do so? (*Judgment*)

S: ...

I: Were you aware of the cameras around the store?

S: ...

I: We have looked into your living situation. Seems like you live with your parents? (*factual – living situation*)

S: ... No I do not live with my parents, I live on campus

I: Oh, I am sorry that I got that wrong.

S: ...

I: How did you get home?

S: ...

I: That would be enough for now, thank you for your time \*right name. We'll be in touch regarding any further steps in the investigation. If you need to talk to a counsellor, the front desk can arrange a meeting for you. Thank you for your time.

## Appendix C

### Rapport Scales for Investigative Interviews and Interrogations (RS3i):

1. I think the interviewer is generally honest with me.
2. The interviewer did his/her job with skill during the interview.
3. The interviewer respects my knowledge.
4. The interviewer and I have our culture in common.
5. The interviewer performed expertly during the interview.
6. I think that the interviewer can generally be trusted to keep his/her word.
7. The interviewer and I probably share the same ethnicity.
8. The interviewer really listened to what I had to say.
9. I was motivated to perform well during the interview.
10. I feel I can trust the interviewer to keep his/her word to me.
11. The interviewer made an effort to do a good job.
12. The interviewer acted like a professional.
13. The interviewer paid careful attention to my opinion.
14. The interviewer and I got along well during the interview.
15. The interviewer and I worked well together as a team.
16. The interviewer probably shares my culture.
17. I wanted to do a good job during the interview.
18. The interviewer was attentive to me.
19. Communication went smoothly between the interviewer and me.
20. The interviewer was interested in my point of view.
21. I felt committed to accomplishing the goals of the interview.

→ Likert scale 1-5

## Appendix D

Big Five Personality Questionnaire (BFPQ), Subscale Agreeableness, R = Reverse Code

1. I am helpful and unselfish with others.
2. I tend to find fault with others.(R)
3. I tend to start quarrels with others.(R) → change quarrels to “arguments” (because I did not know what it meant and I think some non-native people might not as well)
4. I have a forgiving nature.
5. I am generally trusting.
6. I can be cold and isolated.(R)
7. I am considerate and kind to almost everyone.
8. I am sometimes rude to others.(R)
9. I like to cooperate with others.

→ Likert scale 1-5

## Appendix E

### E1

#### Additional Analyses

*Results of the Post-Hoc Test adjusting with Tukey's HSD*

Comparison	Mean Difference	Std. Error	t-value	p-value
Zero Errors vs Five Errors	0.003	0.27	0.01	0.99
One Error vs Five Errors	-0.13	0.28	-0.47	0.64
Zero Errors vs One Error	0.13	0.27	0.5	0.62

### E2

*Moderation Analysis with the Independent Variable Code, Dependent Variable Rapport, and Moderator Variable Agreeableness. The Reference Condition was Condition 1.*

	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Agreeableness	0.347	0.494	0.703	0.488
OneError:Agreeableness	-1.074	0.717	-1.498	0.144
FiveError:Agreeableness	-0.303	0.678	-0.447	0.658

*Note.* This table demonstrates unstandardized data.

### E3

*Simple Slope Analysis for the Moderation Effect of Agreeableness on the Relationship between the Independent Variable Condition with Three Levels (ZeroError, OneError, FiveError) and the Dependent Variable Rapport*

Outcome	Condition	<i>Simple slopes</i>			
		<i>B</i>	<i>SE</i>	<i>LowerCI</i>	<i>UpperCI</i>
<b>Rapport</b>	ZeroError	0.35	0.5	-0.67	1.36
	OneError	-0.73	0.52	-1.79	0.33
	FiveError	0.04	0.47	-0.9	0.99

*Note.* This table demonstrates unstandardized data.

To display the differences between the three conditions, a slope comparison was conducted. Zero errors and one error showed no significant difference from each other when being moderated by agreeableness ( $b = 1.07$ ,  $SE = 0.72$ ,  $t = 1.5$ ,  $p = 0.31$ ). This counts also for the comparison between the zero errors and five errors ( $b = 0.3$ ,  $SE = 0.68$ ,  $t = 0.45$ ,  $p = 0.9$ ) and the one error and five errors condition ( $b = -0.77$ ,  $SE = 0.7$ ,  $t = -1.12$ ,  $p = 0.52$ ). Even though the unstandardized beta weight shows a slight negative slope in the latter comparison, the p-value is still insignificant.