Error making in crisis negotiation: The effect of an (intentional) error and response strategies on rapport

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Abstract

This study investigated whether there is a link between different types of communication errors and experienced rapport in crisis negotiations. Students (*N*=64) were asked to participate in an online scenario with different conditions of errors and response strategies. Thus, a 2 (error on purpose, accidental error) x3 (apology, denial, deflection) factorial between-subjects design study with an additional control group in which no error was made was conducted, with rapport as a dependent variable. The relationship of the different types of error on rapport was tested, as well as the relationship of response strategies and rapport, including perceived guilt. The findings showed that there was no difference in experienced rapport when making an error on purpose, an accidental error, or no error. Further, apology as a response strategy did not lead to more experienced rapport after an error was made than denial or deflection. Also, guilt could not be considered as a mediator between the response strategies and experienced rapport. Several reasons for the findings were discussed and limitations considered so that this research can be seen as a starting point for further investigations on the role of rapport after an accidental or intentional error in crisis negotiations.

Error making in crisis negotiation: The effect of an (intentional) error and response strategies on rapport

In the internet article "I was a crisis negotiator for 23 years. Here's what it's like to talk down an armed hostage talker", Gary Noesner talks about his experiences and his career as a crisis negotiator. He says that listening to the suspect is the most important thing during a negotiation. Gary Noesner claims that besides listening to the suspect, building up a relationship is indispensable because the suspect needs to feel heard and understood. Therefore, one needs to demonstrate that he is hearing what the suspect has to tell by repeating or paraphrasing the statements of the suspect. When a suspect feels misunderstood it can lead to dangerous consequences. Thus, prudent actions of the negotiator are crucial (Shaw, 2016). In an internet article about failing hostage negotiations, the author explains a lack of understanding and lack of rapport as two of the main reasons for the failure of a crisis negotiation (Young, 2018).

Hence, it is crucial to investigate how rapport affects the negotiation relationship between a hostage negotiator and a suspect when misunderstandings and errors by the negotiator occur.

Negotiators, such as Gary Noesner, are increasingly brought into hostage negotiations to communicate with the suspect in order to end the situation peacefully. This kind of communication is called crisis negotiation. A crisis negotiation can be defined as the communication between a suspect and the negotiators or the police who are willing to end a situation by common agreement. Although, the actual outcome does not always have to be peaceful (Oostinga, Giebels, & Taylor, 2018b). In order to be able to communicate and act in an appropriate way towards and with the suspect, there are trainings available for crisis negotiators in which they are being prepared for such negotiation situations (Vecchi, Van Hasselt, & Romano, 2005).

Crisis situations in which people barricaded themselves are always urgent because this person, but also other involved people, can be in great danger. The negotiator must adjust to the suspect and the situation within seconds and it might happen that the negotiator fails, and an error occurs. Apart from the negotiation trainings, errors in crisis communication can happen because errors are inevitable and human (Mitropoulos, Abdelhamid, & Howell, 2005). Greenstone (2007), in his article about the most serious errors made by police hostage and crisis negotiators, states that an impeccable negotiator does probably not exist and that all negotiators make errors some time. Cirgularov et al. (2010) argue that especially in stressful and complex situations like crisis negotiations errors are unavoidable.

Some research about errors in crisis negotiation can be found and it is important to further investigate it because this topic is of high relevance. Negotiation situations are dangerous, and it is always aimed for a peaceful ending. Researchers found that error making leads suspects to share more information and to have a higher satisfaction because of the 'recovery paradox' (Oostinga, Giebels, & Taylor, 2018a). When a person feels that the response to an error is appropriate, the satisfaction is higher than when no error was made. It is a very interesting phenomenon, which needs more attention in research about crisis negotiations. This 'recovery paradox' could be an interesting aspect when looking at strategies for crisis negotiations to increase satisfaction in the suspects.

To further investigate the topic of error making, in this research, error making on purpose, accidental errors, and making no errors and the impact on rapport is researched by using error manipulations and responding with either apology, denial, or deflection.

Communication errors and rapport in crisis negotiations

While errors can be harmful for certain situations, they can also give a good opportunity for learning and improving (Van Dyck, Frese, Baer, & Sonnentag, 2005). Errors, in general, are seen as bad because they lead to unintended changes from former plans and aims (Book "Webster's seventh new collegiate dictionary", as cited in Cigularov, Chen, & Rosecrance, 2010). This can impair the relationship between the two parties and can lead to a negative result like embarrassment, incompetence, physical or mental pressure, and damages or accidents.

However, sometimes errors are made on purpose. A related concept to making errors on purpose is lying because lying can be defined as misleading someone intentionally which is also the case when making errors on purpose (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). Researchers stated that lying is correlated with untrustworthiness, less openness, and that it harms trust and the relationship between the involved people (Levine & Schweitzer, 2015; Tyler & Feldman, 2004). In their paper about the Interpersonal Deception Theory, Buller and Burgoon (1996) defined deception as "a message knowingly transmitted by a sender to foster a false belief or conclusion by the receiver" (p. 205). They explicitly mention that this rules out accidental mistakes or errors. So, deception can also be making errors on purpose. They state that when it comes to responses of the receiver while being exposed to the deceptive message, they feel unpleasant. The foundation of a good relationship between two people is trust and rapport, which is achieved through honest communication.

There are different opinions on the effectiveness of making errors on purpose during crisis negotiation situations. Oostinga et al. (2018b) stated in another article that making errors

on purpose can enhance the relationship because it may incite the suspect to share information. Also, Levine and Schweitzer (2015) found out that lying not always harms the trust in the relationship.

However, most research found that making errors on purpose can have a negative effect because the relationship and cooperation between the negotiator and the suspect suffers (Oostinga et al., 2018a). They suggested that the relationship between a law enforcement officer and the suspect suffers when the law enforcement officer makes an error because it impacts the suspect's willingness to interact with the officer. As a good interaction largely depends on the relationship between the negotiator and the suspect, rapport is an important concept that needs to be considered when it comes to crisis negotiation.

According to Newberry & Stubbs (as cited in Collins, Lincoln, & Frank, 2002), rapport can be defined as the harmonious, empathetic, or sympathetic relation to another person. In a crisis negotiation, the relationship between the negotiator and the suspect is very important to build a trustful base that in the end again is crucial for the communication and a positive agreement (Drolet & Morris, as cited in Bronstein, Nelson, Livnat, & Ben-Ari, 2012; Nadler, 2004). Also, Oostinga (2018a) found that errors have a negative impact on the suspect's trust in the negotiator and have a negative influence on rapport. Because rapport was found to be an interesting key variable in negotiation situations and because of its effect on the outcome of the negotiations, it is an interesting topic for research.

These information about communication errors and rapport leads to the assumption that making an error on purpose leads to less rapport in the negotiation than making no error or making an accidental error. Also, it can be assumed that an accidental error in a crisis negotiation leads to less experienced rapport of the suspect than making no error.

H1: Making an error on purpose in crisis negotiations leads to less experienced rapport of the suspect than making no error or making an accidental error.

H2: Making an accidental error in crisis negotiations leads to less experienced rapport of the suspect than making no error.

Response strategies

After an error is made, the negotiation continues, and the negotiator has to respond to the confrontation of the suspect. There is some research available about how to react when a

communication error happens in crisis negotiation. Most research focuses on the effects of apologizing and denial as response to a communication error in crisis negotiation.

Many researchers stated that an apology, defined as a declaration which shows responsibility and regret for the error, is an effective response strategy because it shows the suspect that the causer feels remorse (Book "Mea Culpa: A Sociology of Apology and Reconciliation", as cited in Robbennolt, 2009).

In several experimental studies on students, researchers found that after an apology, victims are more willing to rebuild the relationship with the offenders (Nazareth & Kanekar, 1986; Tomlinson, Dineen, & Lewicki, 2004) and that an apology can decrease anger and blame of the suspect while it restores and increases trust and rapport (Takaku, 2001). An apology is also a main aspect of revelation. Apologizing is an important and effective strategy to recover an error, as shown in a pre-programmed online experiment on a sample of students (Oostinga et al., 2018a). A laboratory experiment, using a student sample, of Kim, Ferrin, Cooper, and Dirks (2004), showed that repairing the relationship between mistrusted parties is better when apologizing after an error that is related to competence but that an error related to integrity is better repaired by denial. Smith and Forster (2000) concluded that errors should be followed by an apology insofar there are no grave reasons to do it differently.

Contrary, Ferrin, Kim, Cooper, and Dirks (2007), in their laboratory experiment on a student sample, found that apologizing is an ineffective strategy because it shows that the offender feels guilty for the harm done and this could make the consequences of the error even worse. While they found that apologizing is not an effective strategy, they ascertained that a denial of an error has a positive effect on trust because it disputes the negotiator's guilt.

Denial, according to the Benoit's Image Repair Theory, is the assert that the error did not occur, the statement that the person did not make the error, or that the error created no harm (Len-Ríos & Benoit, 2004). It is operating as a statement and account for the behaviour in order to handle the past and future events (Mizrahi, 1984). Kim et al. (2004), stated that denying does not show either guilt or redemption, which indicated that it is no ideal response strategy. Since contradiction fends off the responsibility for an error, it also is a form of denial (Oostinga, 2018a). The research of Oostinga (2018a) found that contradiction led to less trust and rapport compared to a control condition and an apology condition. Smith and Forster (2000) stated that when known mistakes are denied and discounted by a professional, the other person's ability to trust the professional is impaired. Truth is essential for an effective relationship because the relationship suffers from untruth. In their questionnaire research on students about friends and

deflecting questions, Donovan-Kicken, McGlynn, and Damron (2012) found that for a functioning relationship authentic conversations are good.

Another response strategy a negotiator could use to react to the confrontation is deflection, which is little studied. Deflecting can be defined as shifting the blame and identifying the "actual" perpetrator and assigning the responsibility to another person (Len-Ríos & Benoit, 2004). Blaming a superior for medical mistakes leads to serious consequences for the patient care as well as for the relationships of the staff (Book "Interns", as cited in Mizrahi, 1984). It can be assumed that this also accounts for the relationship between the negotiator and the suspect.

Based on the information above, it can be seen that there are contrasting views about using response strategies after an error. Still, most literature found that an apology is the most effective response strategy. Due to this and due to the fact that the study of Oostinga et al. (2018a) found that an apology is the most effective strategy it is assumed that apologizing after an error is made in crisis negotiation leads to more experienced rapport than deflecting or denying the error.

H3: Apologizing after an error is made in crisis negotiations leads to more rapport than deflecting and denying.

Guilt

Apologizing, denying or deflecting after an error can have different effects on the continuation of the negotiation and the relationship between the two parties. The concept of shown and perceived guilt can play a crucial role in a negotiation situation. Kugler and Jones (1992) defined guilt as "the dysphoric feeling associated with the recognition that one has violated a personally relevant moral or social standard" (p.318). Stearns and Parrott (2012) researched shame, guilt, and a person's perception using an autobiographical vignette in which the author did something wrong. When the writer apologized and reported to feel guilty for the deed the reader of the vignette got more positive impressions than when there was no apology and no feelings of guilt. The writer who expressed these emotions was rated higher on characteristics like moral motivation and social attunement. The writer who did not express guilt and worthlessness was rated lower on those attributes.

The most important effect of guilt is that it has a positive influence on interpersonal relationships because it is linked to empathy and perspective-taking (Leith & Baumeister, 2008). In their research on guilt as an interpersonal approach, Baumeister, Stillwell, and

Heatherton (1994) stated that guilt has several functions that enhance rapport. These are for instance avoiding transgressions and reorganizing emotional distress. Kim et al. (2004), found that when there is evidence for guilt, an apology is better for repairing the trust relationship between two parties. In a paper about crisis negotiation strategies and its issues, researchers stated that the suspect is more likely to listen and accept what the negotiator has to say when rapport has been developed (Book "National crisis negotiation course", as cited in Vecchi et al. 2005).

As apologizing shows guilt and not apologizing does not show guilt and impairs the relationship it can be assumed that showing guilt mediates the relationship between the response strategy (apology, denial, deflection) and rapport during the crisis negotiation.

H4: The extent to which the suspect experiences the negotiator to express guilt mediates the effect of the response strategies on rapport.

Methods

Design

The design that was used in the study was a 2 (error on purpose, accidental error) x3 (apology, denial, deflection) factorial between-subjects design. Additionally, a control group with no error was added. The dependent variable in this research was rapport. The study was part of a larger study in cooperation with other researchers, but only the variables relevant to this study are described.

Participants

The study comprised a total sample of 134 students. The selection criteria for the inclusion in the study were being a student and having sufficient English skills. Thirty-five students of the University of Twente participated, and 99 students of other universities participated. In total, 70 participants were excluded from the analysis. Exclusion of participants was discussed with other researchers to make sure no mistakes were made. Of the 70 excluded participants, 42 opened the study but did not take part. In addition, 12 participants who did not finish the study were excluded, and 14 participants were excluded because they did not recognize the error. Also, two participants needed to be excluded because they did not answer the questions in a serious manner.

After excluding, the sample comprised *N* = 64 participants whose mean age was 22.22 years old (*SD* = 1.90). Twenty-four of the participants were male (37.5%), 40 participants were female (62.5%). Fifty-six participants were German (87.5%), four participants were Dutch (6.3%), and four participants (6.3%) were other than German or Dutch.

The students of the University of Twente participated for course credits and the other students were aggregated from personal contacts and they were asked for voluntary participation.

The distribution of the participants, who were randomly assigned to one of the different conditions, can be seen in Figure 1.

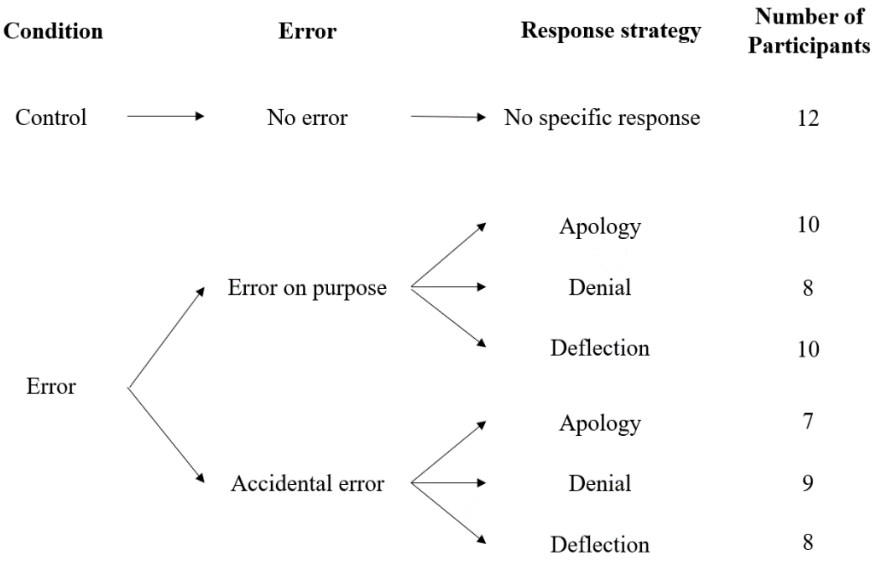

Figure 1. Different conditions, errors, response strategies, and number of participants per condition.

The participants acknowledged to participate voluntary by signing an informed consent (Appendix A). The study was approved by the Ethics Committee of the Behavioural Management and Sciences Faculty of the University of Twente.

Measures and Materials

Rapport. In the study, the rapport the participants experienced during the previous interaction with the negotiator was measured using the 9-item Interaction Questionnaire of Vallano & Compo (2011). On a five-point Likert scale from “not” to “extremely”, the participants were asked to rate to what extent they perceived the interaction such as “smooth”,

"bored", "satisfied" (Appendix B). The Cronbach's alpha of this scale was .70, which is acceptable.

Perceived guilt. In order to measure how much guilt the participant perceived in the negotiator after making the error, a bipolar scale from 1=not guilty to 7= extremely guilty was used (Dixon & Mahoney, 2004) (Appendix C).

Meta-questions and demographic questions. After completion of the general study, the participants were asked to answer two meta-questions that asked if the scenario and the questions were understandable. Also, demographic questions about age, gender, nationality, and study year were asked.

Qualtrics. The survey was conducted using "Qualtrics", which is an online survey tool. The survey was built there, and the responses were saved.

Procedure

The study was an online study in which the participants were asked to imagine a situation (Appendix D) that was depicted in a written scenario and supported by a video. This was followed by a pre-programmed online chat and a questionnaire.

The participants were asked to imagine that they are a 2nd- year student who has several personal problems. The student has issues with studying and has difficult family circumstances. After an argument with a friend, the student barricades himself/herself in a room. The participants were told that they have a gun with them and that they threaten to kill themselves if someone tries to enter the room (Appendix E).

By showing the participants a video from the first-person perspective, identification with the situation was supported. The lower body with the arm and the hand of the suspect could be seen. The video showed how the student is running into a room, locking the door, and putting the backpack on a chair. When the backpack is put on the chair, the participant can see a weapon in the backpack. The participant takes the gun and holds it in the hand. Then, the video stops.

The participants then had a pre-programmed online chat with a negotiator, named Anne. Such an online scenario has been used effectively in previous studies (Oostinga et al., 2018a). In the online chat, the participants had an interaction with Anne, and they had to react to one of the conditions they were randomly assigned to.

For the condition "error on purpose", the participants got the scenario: *You hear the police talking in front of the door. You can hear that they are talking about you. While you overhear them, they say to each other, "Say something incorrect on purpose, the suspect might react to that".* So, during the online chat Anne, on purpose, made an error when she said:" Ok. So, you barricaded yourself because you lost your part-time job."

For the condition "accidental error", the participant was confronted with this scenario: *You hear the police talking in front of the door. You can hear that they are talking about you. They say, "The suspect studies at this university".* Since the error is supposed to be accidental, the police said something correct when standing in front of the door. Then, during the online chat Anne made the error when writing: "Ok. So, you barricaded yourself because you lost your part-time job."

For the condition "No error" the participant also is confronted with this scenario: *You hear the police talking in front of the door. You can hear that they are talking about you. They say, "The suspect studies at this university".* This again is correct. Also, during the online conversation, Anne made no mistake.

For the responses in the conditions "error on purpose" and "accidental error", the negotiator used different response strategies. These were apology ('I did it wrong, I am sorry.), denial ('I did not get it wrong. You misunderstood me.') and deflection ('My colleague gave me the wrong information.').

After the interaction, the participant was asked to answer questionnaires, in order to measure rapport, perceived guilt, and descriptive variables.

Data analysis

The responses of the survey were saved in "Qualtrics". To analyse the data, IBM SPSS Statistics 26 for Windows- PC was used.

The first step was to clean the data, which means removing subjects who did not finish the study and removing subjects that did not recognize the error. Then, reversed items were recoded. After that, descriptive analysis was computed and Cronbach's alpha for the 9-item Interaction Questionnaire was calculated. A Pearson correlation was conducted in order to see if there were effects between the 9-item interaction scale and the perceived guilt measurement.

Shapiro-Wilk tests were conducted to check the normality of the data for H1, H2, and H3. To test hypothesis H1 and H3, a one-way ANOVA was conducted, and to test H2, an independent t-test was conducted. In order to test the mediation in H4, the SPSS add-on

PROCESS (Hayes, 2013) was used with a 95% Confidence Interval using 5000 bootstrap samples.

Results

Correlations

In Table 1, the means, standard deviations, and inter-correlations between age, gender, the dependent variable rapport, and the mediator perceived guilt can be found. As might be expected, results of the Pearson correlation showed that there was a positive significant correlation between rapport and perceived guilt.

Table 1

Means, standard deviations, and inter-correlations between age, gender (Male coded as 1, Female coded as 2), rapport (DV), and perceived guilt (mediator).

Variables	***M***	***SD***	***α***	**1**	**2**	**3**	**4**
1. Age	22.22	1.90					
2. Gender				-.38**			
3. Rapport	2.72	.55	.70	-.08	.009		
4. Perceived guilt	3.02	1.6		.04	-.11	.49**	

**. Correlation is significant at the .01 level (2-tailed).

Hypothesis testing

To test whether an error on purpose leads to less experienced rapport than making no error or making an accidental error (H1), a one-way ANOVA was conducted. Therefore, the independent variables were error on purpose, accidental error, and the control condition. The dependent variable was rapport.

The assumption of normality was evaluated using the Shapiro-Wilk test and found to be reasonable for the error on purpose, $W(28) = .95$, $p = .22$, accidental error, $W(24) = .95$, $p = .24$ and the control condition, $W(12) = .94$, $p = .50$.

The assumption of homogeneity of variance for the mean scores of error on purpose ($M = 2.73$, $SD = .48$), accidental error ($M = 2.59$, $SD = .60$), and the control condition ($M = 2.96$, $SD = .58$) was found to be non-significant using Levene's Test, $F(2,61)= 1.29$, $p = .28$. The ANOVA was also found to be non-significant, $F(2, 61) = 1.84$, $p = .17$. So, there is no

significant evidence to accept the hypothesis and to conclude that making an error on purpose leads to less experienced rapport than making an accidental error or making no error.

In order to find out whether making an accidental error leads to less experienced rapport than making no error (H2), an independent t-test was conducted. The independent variables were accidental error and the control condition, while the dependent variable was rapport.

The Shapiro-Wilk test showed no significant difference from a normal distribution for the accidental error, $W(24) = .95$, $p = .24$, and the control condition, $W(12) = .94$, $p = .50$.

The independent t-test indicated that the mean score of the control condition ($M = 2.96$, $SD = 5.77$) was not significantly higher than the mean score for the accidental error condition ($M = 2.59$, $SD = .60$), $t(22.94) = -1.79$, $p = .08$. Since the mean rapport for the control condition was higher than the mean for the accidental error condition, the results went into the expected direction that making an accidental error led to less experienced rapport than making no error. However, the results of the independent t-test showed that the hypothesis is not supported, and it cannot be concluded that making an accidental error leads to less experienced rapport than making no error.

In order to find out whether apologizing after an error leads to more rapport than deflecting or denying (H3), a one-way ANOVA was computed. The independent variables were apology, denial, and deflection and the dependent variable was rapport.

The Shapiro-Wilk test showed no significant difference from the normal distribution for the responses apology, $W(17) = .94$, $p = .32$, denial, $W(17) = .94$, $p = .28$), and deflection, $W(18) = .92$, $p = .15$.

There was no significant difference found in means for the assumption of variance in the Levene's statistic for apology ($M = 2.80$, $SD = .60$), denial ($M = 2.54$, $SD = .50$), and deflection ($M = 2.67$, $SD = .51$), $F(2,49) = .64$, $p = .53$. The ANOVA also showed a non-significant difference between the independent variables, $F(2, 49) = 1.00$, $p = .38$.

The results showed that the means were going into the expected direction which was that apologizing led to more rapport than deflecting or denying the error. Still, the differences are very small, they were not confirmed by the results of the ANOVA and there was no significant proof to accept the hypothesis and thus to conclude that apologizing after an error leads to more experienced rapport than deflecting or denying.

To test whether perceived guilt mediated the effect of the response strategies as independent variable on rapport as dependent variable (H4), a mediation analysis was computed. Therefore, model 4 of PROCESS was used with 5000 bootstrapping samples to derive a 95% Confidence Interval.

The total effect of the response strategy (IV) on rapport (DV), (path c) was found to be negative and non-significant (*b* = -.30, *SE* = .17, *p* = .10, 95%CI [-.65, .05]). The effect of the response strategy (IV) on the mediator perceived guilt (path a) showed similar results (*b* = -.90, *SD* = .52, *t*(1, 62) = -1.75, *p* = .08, 95%CI [-1.94, .13]). A positive significant association was found for the relationship between the mediator perceived guilt and the dependent variable rapport (path b), (*b* = .16, *SD* = .04, *t*(2, 61) = 4.05, *p* < .001, 95%CI [.08, .23]). The direct effect (path c') on the independent variable response strategy on the dependent variable rapport was found to be negative and non-significant (*b* = -.16, *SE* = .16, *p* = .34, 95%CI [-.48, .17]).

The indirect effect showed no significant effect of response strategy (IV) on rapport (DV) through the mediator perceived guilt (*b* = -.14, *SE* = .09, 95%CI [-.60, .01]). Thus, perceived guilt does not serve as mediator between response strategy and rapport and Hypothesis 4 cannot be accepted.

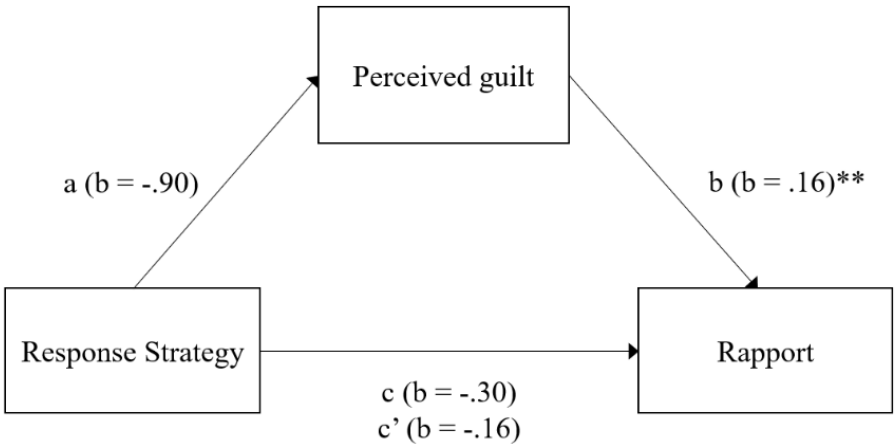

Figure 2. Mediation analysis with Response Strategy as IV, Perceived guilt as mediating variable and Rapport as DV. a = path a, b = path b, c = path c (total effect of Response Strategy on Rapport), c' = path c' (direct effect of Response Strategy on Rapport, mediated by Perceived guilt); b = unstandardized regression coefficient.

Discussion

The aim of the study was to find out whether there is a link between different types of errors on rapport, what response strategy is the best to use after an error is made, and to detect the role of guilt in relation to response strategy and rapport. It was found that there was no difference in experienced rapport when an error was made on purpose, when it was made accidental or when no error was made. Also, the response strategy apology did not lead to more experienced rapport after an error than denial or deflection. Further, guilt did not mediate the effect between response strategy and rapport.

Main Findings

The current study showed that making an error on purpose does not lead to less experienced rapport than making no error or making an accidental error. This is not in line with the first hypothesis (H1). Since previous studies found that telling the truth and having a honest conversation led to a better relationship and more rapport (Donovan-Kicken et al., 2012; Oostinga et al., 2018a), it was assumed that making an error on purpose is worse for the experienced rapport than making no error or an accidental error.

Furthermore, this study found that making an accidental error does not lead to less experienced rapport than making no error. This is also not in line with the hypothesis (H2). The hypothesis assumed that making an accidental error leads to less experienced rapport than making no error since several studies found that having a truthful and sincere conversation leads to more rapport between two parties studies (Donovan-Kicken et al., 2012; Kim et al., 2004; Oostinga et al., 2018a; Takaku, 2001). However, the results are found to be non-significant, the results slightly show that there is a difference in means and that making an accidental error can lead to less experienced rapport than making no error.

Considering the non-significant results of the analysis of Hypothesis 1 and Hypothesis 2, the ‘recovery paradox’ needs to be taken into consideration as an explanation. The ‘recovery paradox’ stresses that making an error encourages the suspect to share more information and to feel a higher satisfaction. The ‘recovery paradox’ reveals that when the response to an error is decent, the satisfaction of the harmed person is higher than when no error was made (Oostinga et al., 2018a), which might have been the case in this study. Furthermore, while the study about the effect of errors in law enforcement by Oostinga et al. (2018a) found a correlation using an online scenario to test rapport after an error, Drolet and Morris (2000) found that rapport is linked with non-verbal behaviour and expressions that are only available when seeing the other

person. It is assumed that without visual contact the effectiveness of a negotiation is limited (Nadler, 2004). So, due to no visual contact with the crisis negotiator during the chat, experienced rapport might have been impaired.

Additionally, the current study found that apologizing after an error was made in crisis negotiations does not lead to more rapport than deflecting or denying (H3). So, the participants did not feel more rapport towards the negotiator after apologizing than after deflecting or denying. Since researchers found that apologizing is an effective response after an error (Oostinga et al., 2018a; Tomlinson et al., 2004), it was assumed that apologizing, after an error was made in crisis negotiation, leads to more rapport than deflecting or denying the error. However, it is some research about apology available that is in line with the results found in this study. Ferrin et al. (2007) also argued that an apology is ineffective because of the fact that it shows guilt, and this could worsen the consequences of an error. At the same time contradiction of an error shows a positive effect on trust because it negates the guilt of the negotiator.

The current study found, that the effect between a response strategy and rapport is not mediated by guilt (H4). Previous studies found that especially apologizing led to the perception of guilt which then again led to a better relationship than not showing guilt (Kim et al., 2004; Stearns & Parrott, 2012). As already emphasized above, researchers found that rapport is better developed in personal conversations because of available non-verbal cues. Due to the online survey in this study, the effectiveness of the negotiation might have been limited (Drolet & Morris, 2000). Also, the 'recovery paradox' needs to be mentioned as a reason, because it might be that this phenomenon led to a higher satisfaction in the participants (Oostinga et al., 2018a).

Strength and Limitations

A strength of this study was the aspect of collecting the data through the online scenario that was followed by the questionnaires. Through the fact that the survey was pre-programmed, it was easier to compare the data because the participants in the same condition all got the same responses.

There are some limitations for this study that need to be mentioned. One limitation is the number of participants. The study comprised a sample of 64 participants which is too few for a study with seven different conditions. This can be seen as a systematic error and the results may therefore not be representative. There are some reasons that need to be mentioned in relation to the limited number of participants. One reason may be the time constant since there was a limited amount of time set for this research and the data collection needed to be closed at

a certain time. Another reason for too few participants may be the design of the scenario. Since it was written from the perspective of a student, there were no other people than students allowed to participate in the study. This also limited the number of possible participants tremendously.

To make the study more meaningful, it could be replicated and improved. Therefore, it would be important to maintain the strength and improve the limitations. It is suggested to design a scenario that is more general so that more groups of people can participate. Another suggestion for increasing the number of participants in future research is to design the study in more than one language, especially when it is promoted in a country with another native language than English. In this case, it would have been useful to design the study in English, Dutch, and possibly German but due to limited time, it was not possible.

Another limitation of the study is that many people did not recognize the error manipulation. In order to make it easy for the participants to identify with the scenario and to really feel like the suspect, much information was given to the participants. This might have been confusing and so, many participants did not get that the negotiator made an error.

Although the scenario was easy to understand, for future research it is suggested to have a simpler scenario with which the participants can still identify. One could leave out the fact that there are many family problems because this might have been confusing. Due to the fact that many different problems were discussed in the scenario, the participants might have forgotten what the problems were and so, they might have assumed that the loss of the job is one of the problems. Also, it was not emphasised that the problems were important for the scenario and so, the participants might just have read over the problems without paying special attention to them.

A further limitation that needs to be considered is the measurement of guilt. To assess the guilt the participants perceived in the negotiator after the error was made, a single bipolar scale was used. This might not have been the optimal approach to measure the perceived guilt because it just contained one single overall assessment. Kugler and Jones (1992) stressed that guilt is made of many different constructs and that other factors, like the state, the personality, and the moral standards and values also play a role. Therefore, the perceived guilt would have been assessed more accurately with more multifaced and personal items. A questionnaire with some more specific items and a Likert scale might have been more useful because the assessment would have more specific and accurate.

For future research, it is suggested to implement a questionnaire that has more suitable and specific items in order to assess the perceived guilt of the participants and other influencing factors more accurately and precisely.

Since there were non-significant results that could be explained by the phenomenon 'recovery paradox', this should be in focus of future research on the topic of crisis negotiations and errors. The 'recovery paradox' claims that due to a decently repaired error the satisfaction of the subject after the reparation is higher than when no error was made (Oostinga et al., 2018a).

Conclusion

This study aimed to show the relations between making an error on purpose, making an accidental error and making no error and experienced rapport. It also examined the relationship between response strategies and rapport and the role of guilt as a mediator. It was expected that making an error on purpose or making an accidental error leads to less rapport than making no error and that an apology is a better response to an error than denial or deflection. Also, it was expected that guilt serves as a mediator between the response strategies and experienced rapport.

It was found that making an error either on purpose or accidental does not lead to less rapport than making no error. Also, it was found that the response strategy apology is not better than the response strategies denial or deflection to restore rapport between the negotiator and the suspect. A further finding was that guilt does not serve as mediator between the response strategies (apology, denial, deflection) and rapport.

This study can be considered important in that sense that it, in general, opens a path for further and more specified research on crisis negotiations and its issues. It can serve as starting point for research on crisis negotiations with the focus on accidental error making or making an error on purpose and rapport. This especially applies to the phenomenon of the 'recovery paradox', since it could be an effective strategy in crisis negotiations.

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Appendix A

Informed consent

“I hereby declare that I have been clearly informed about the nature and method of the study, as explained in the previous statement. I fully agree to participate in this research. I reserve the right to withdraw my agreement without having to give a reason and I recognize that I can stop the study at any time. If the study is completed all information will be anonymized and my identity will stay hidden, and I will stay anonymous throughout the research process and with the use of my data. Without my expressed consent, my personal data will not be accessed by third parties. If I want to get more information about the outcome of the research, I can contact Lars Meiländer, l.meilander@student.utwente.nl.

If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researchers, please contact the Secretary of the Ethics Committee of the Faculty of Behavioural, Management and Social Sciences at the University of Twente by ethicscomittee-bms@utwente.nl.

( ) “I have provided agreement and consent for the investigation. I declare that I am ready to answer the questions as realistic and truthfully as possible."

We have provided explanations for the investigation and declare ourselves ready to answer any further questions about this investigation, research and outcome.

Elias Berrada, Lars Meiländer, Tabea Platje and Adele Watford-Spence

Appendix B

9-item Interaction Questionnaire (Vallano & Compo, 2011)

Rate the interaction with the negotiator on the following characteristics:

1. Smooth

1	2	3	4	5
not smooth		somewhat smooth		extremely smooth

2. Bored

1	2	3	4	5
not bored		somewhat bored		extremely bored

3. Satisfied

1	2	3	4	5
not satisfied		somewhat satisfied		extremely satisfied

4. Awkward

1	2	**3**	4	5
not awkward		**somewhat awkward**		extremely awkward

5. Engrossed

1	2	3	4	5
not engrossed		somewhat engrossed		extremely engrossed

6. Involved

1	2	3	4	5
not involved		somewhat involved		extremely involved

7. Friendly

1	2	3	4	5
not friendly		somewhat friendly		extremely friendly

8. Active

1	2	3	4	5
not active		somewhat active		extremely active

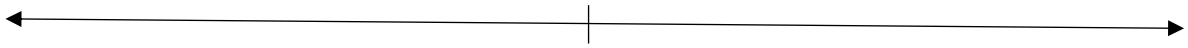
9. Positive

1	2	3	4	5
not positive		somewhat positive		extremely positive

Appendix C

Bipolar scale to assess perceived guilt (Dixon & Mahoney, 2004)

Rate on the scale how much guilt you perceived in the negotiator.



1	2	3	4	5	6	7
Not guilty						**Extremely guilty**

Appendix D

Introduction

Thank you for participating in this research project! Within this online study, we want to find out how you deal with the following situation: You will be asked to imagine that you barricaded yourself in a room and intend to kill yourself, because of several personal issues. Then the police will try to approach you and we will look into how you respond to their attempts to come into contact with you. It is important that you try to react as you would if the situation was real, try to react naturally. To help visualize the situation, we use a video. Within this video, you will see everything through the eyes and ears of someone who barricades him/herself in a room. The crisis negotiator (someone from the police with special police training) will try and get into contact with you and will start a conversation. After the conversation, we will continue by asking some general questions about what happened.

The study will take about 30 minutes. Information gathered is part of the research of some students from the police academy and for the bachelor thesis of the students Elias Berrada, Lars Meiländer, Tabea Platje and Adele Watford-Spence.

Appendix E

Scenario

Please imagine the following situation:
You are a 2nd-year student. Since you lack the motivation to study for exams and do the assignments, you always start to work just before the exam or the deadline. This has caused you trouble in the past semesters but still, you always managed to pass. Last semester you did not pass one component and have to do two resits while you also have to work for the current semester. Now, you have to study for two resits, one theory exam and you have to work on your research project. You feel more and more drained by the stress.

In addition to that, your family circumstances are difficult. Your father is violent and your mother is addicted to alcohol. This morning you found a gun in your mother's bedside cabinet. Because you are afraid that she wants to commit suicide, you put the gun into your backpack and drive to the university to meet your best friend, to talk and study together. After having a small conversation about the current situation your friend tells you that you are annoying and that you always talk about your family and university problems but never do anything against it. You are sad about this, because you expected your best friend to support you instead of blaming you. You get into an argument and you lose your temper. You run into a room and lock the door.