

**Communication Error Management in Crisis Negotiations:
The Effectiveness of Recovery Strategies after Communication Errors**

Caroline Lennecke

S1477218

Bachelor thesis

June 2016

University of Twente

Faculty of Behavioural, Management,
and Social Sciences

Psychology of Conflict, Risk and Safety

Supervision:

1st Supervisor: M.S.D. Oostinga, MSc.

2nd Supervisor: Prof. Dr. E. Giebels

Abstract

Communication errors may play a role in crisis negotiations, because in crisis negotiations the stakes are high. To choose an adequate recovery strategy in order to recover from those communication errors in a crisis negotiation, it is essential to know which possible negative effect the making of an error can have on different interpersonal factors. In order to research communication error management in the setting of a crisis negotiation, 165 students enrolled in a scenario. Here they were asked to imagine to be in a barricaded crisis negotiation after a theft and were questioned by a police officer. The questioning was online and in reality pre-programmed so that they could be randomly assigned to one condition in a 2 (communication error: factual, judgement) x 3 (recovery strategy: apology, contradict, accept) between subject design with a control condition in which no communication error occurred. The effect of the communication error management was measured in regard to different interpersonal factors (affective trust/cognitive trust, rapport/hostility, and the willingness to provide information). The current study showed that communication errors had no significant effect on these interpersonal factors. Furthermore, it was found that apologizing leads to more affective trust and rapport than contradict or accept, which were equally valued. The results offer implications for choosing a proper strategy to recover from a communication error.

Dutch Abstract

Communicatiefouten zouden een rol kunnen spelen in crisis onderhandelingen, omdat de belangen binnen een crisis onderhandeling hoog zijn. Om een adequate herstelstrategie te kunnen kiezen en daarmee de communicatiefouten in een crisis onderhandeling te kunnen herstellen, is het belangrijk om te weten welke negatieve effecten het maken van een fout op verschillende interpersoonlijke factoren kan hebben. Om het management van communicatiefouten in het setting van crisis onderhandelingen te onderzoeken, hebben 165 studenten zich aangemeld voor een scenario. In dit scenario werd hen gevraagd om zich in een gebarricadeerd crisis onderhandeling na een diefstal in te beelden. Hierbij werden zij ondervraagd door een politieagent. Het ondervragen was online en in werkelijkheid pre-programmeerd, zodat de studenten willekeurig aan een conditie van een 2 (communicatiefout: feitelijk, inschatting) x 3 (herstelstrategie: excuses, tegenspreken en accepteren) tussen subjecten design met een controle conditie waar geen communicatiefout optrad werden toegewezen. Het effect van het communicatiefouten management werd gemeten met betrekking tot verschillende interpersoonlijke factoren (affectief vertrouwen/cognitief vertrouwen, rapport/vijandigheid en de bereidheid om informatie te geven). De huidige studie laat zien dat de communicatiefouten geen significant effect op de interpersoonlijke factoren hadden. Verder leidt het aanbieden van een excuus tot meer affectief vertrouwen en rapport dan tegenspreken en accepteren, waarbij de laatst genoemde reacties gelijkwaardig zijn. De resultaten geven implicaties voor het gebruik van een passende strategie om een communicatiefout te herstellen.

Introduction

Imagine a scenario, where a man has barricaded himself in his house. His wife and son are with him, captivated and gagged. That is how the American movie “Hostage” begins. The negotiator, played by Bruce Willis, negotiates with the perpetrator for 16 hours already and tries to convince him to give up. The negotiator knows that every word can decide over life and death. Therefore, he chooses his words thoroughly and tries to sustain and strengthen the build-up relationship with the perpetrator. But then what happens if there is said something wrong by the negotiator? How does this affect the perpetrator?

In crisis negotiations a good relationship between the perpetrator and the negotiator is needed to come to a peaceful resolution (Dolnik, 2004). Therefore, factors, which facilitate to build up a relationship, play an important role (Dolnik, 2004; Noesner, 1999). Other factors, which disturb the composition of a good relationship between the perpetrator and the negotiator, are rather negatively valued. One example of those negative factors may be communication errors, which are made during a crisis intervention. Communication errors may have a negative impact on different interpersonal aspects between the communication partners. This negative impact may be noticeable on interpersonal factors such as trust, rapport, the willingness to provide information, and hostility. In crisis negotiations, trust and rapport are the two main factors, which especially play critical roles in building up a relationship (Noesner, 1999). On the one hand, trust “entails confidence in another’s behaviour” (Vignovic & Thompson, 2010, p.267), which encompasses the establishment of a relationship. If a communication error is made this trust in the other communication partner can be hampered. On the other hand, rapport can be defined as “a smooth positive [...] interaction” between the communication partners (Abbe & Brandon, 2014, p.208). Following the definition from Abbe and Brandon (2014), rapport closely coheres with the relationship of the two communication partners. Furthermore, rapport creates the basis for the negotiator to

be able to influence the perpetrator to change his behaviour towards a peaceful resolution (Dolnik, 2004). If a communication error occurs, the smooth interaction between the communication partners may be disturbed, thereby achieving a peaceful resolution may be complicated. Rapport also has an impact on the perpetrator's will to provide information (Collins, Lincoln, & Frank, 2002). If rapport is good between the communication partners, it can enhance the perpetrator's willingness to provide information. If a communication error occurs, the perpetrator's will to provide information can be diminished, which can impede the negotiator to direct the perpetrator towards a peaceful resolution. Another factor that rather has a negative and damaging effect on the relationship is hostility (Eckhardt, Norlander, & Deffenbacher, 2004). Therefore, hostility has to be kept low to strengthen the relationship of the communication partners. If a communication error occurs the hostility between the negotiator and the perpetrator may rise and the relationship between them may be negatively afflicted. Concluding, a communication error made during a crisis negotiation may impair the relationship between the negotiator and the perpetrator.

To restore the relationship of the communication partners after a communication error has been made, it would be conceivable to use a recovery strategy to reverse the possibly negative effects of the communication error. Ferrin, Kim, Cooper, and Dirks (2007) examined the effectiveness of different recovery strategies regarding trust violations of organizations. From their approach three recovery strategies emerge, which are apology, denial and reticence, also called acceptance. Because these strategies may also be useful to recover from communication errors in interpersonal contact, they will be regarded in the present study. Summarizing all this information, the question on which the current study is centred is: What impact do communication errors have on crisis negotiations and how are these impacts influenced by the recovery strategies apology, denial and acceptance?

To further provide an insight into the topic of the current study, we will first take a look at crisis negotiations itself. Following this, we will regard the interpersonal factors trust, rapport, the willingness to provide information and hostility. At least, we will regard the three recovery strategies, apology, denial, and accept.

Crisis Negotiation

Crisis negotiation can be defined as “a number of strategies that are utilized during a situation where a person or persons are in crisis, and where decision making has become irrational” (Ireland, 2010, p. 361). The term “crisis negotiation” comprises different verbal strategies, which are used from the negotiator to buy time by decreasing strong emotions and increasing rational thinking in the perpetrator (Dolnik, 2004). Over the last three decades crisis negotiation has become the primary used method to handle hostage situations in many parts of the world (Dolnik, 2004). A crisis negotiation “differs from other negotiations in that the stakes are extremely high, [because] the life of at least one person [is] in immediate danger” (Dolnik, 2004, p. 498). This elicits a high level of stress and tension for every party involved. Following the literature, many forms of crisis negotiations exist, but the crisis negotiation incidents, which occur the most are barricaded crisis negotiation (Van Hasselt et al., 2005). Furthermore, barricaded crisis negotiations are the most researched crisis negotiation incidents (Dolnik, 2004). Therefore, the situation of a barricaded crisis negotiation will be considered in the current study. Following the literature, barricaded crisis negotiation incidents can occur with victims as well as without victims (Dolnik, 2004). The present study is only centred on a barricaded crisis negotiation incident with one perpetrator and no victims.

A crisis negotiation is an extreme form of communication. The term communication denotes “a process in which an individual [or] a group of individuals transfers information about ideas, feelings and intentions to another person [or] another group of individuals” (Bierhoff, 2014, p.367). Compared to less extreme forms of communication, in crisis negotiations a strong mismatch between the two communication partners and their position of

power exists (Dolnik, 2004). In crisis negotiations, the perpetrator possess the power. By having this power, the perpetrator tries to enforce specific needs like money, a vehicle, to get away, or a free passage, which he would normally not be able to get (Dolnik, 2004). The negotiator, having no power at first, has the task to loosen up the extreme position of the perpetrator and the tactical assault team of the police (Dolnik, 2004). On the one hand it is the negotiator's task to minimize the demands from the perpetrator and on the other hand to retain the tactical team to directly "go in and 'take care of the hostage-taker'" (Dolnik, 2004, p. 503). The goal of the negotiator is to "facilitate a peaceful resolution of the incident" (Dolnik, 2004, p. 498).

Following the communication theory of Watzlawick, Beavin, and Jackson (2011) "each communication has an aspect of content and an aspect of relationship". Relating to both of these aspects named by Watzlawick et al. (2011) communication errors can be made; relating to the aspect of content a factual error can be made and relating to the aspect of relationship a judgement error can be made. These two categories can be also found in the current literature (Bohus & Rudnicky, 2005; Halverson et al., 2011; Lingard et al., 2004; Skantze, 2005; Vignovic & Thompson, 2010). The first type of communication error, which is made relating to the content of the communication, can be called factual error. These errors occur, because sufficient information is not given by one of the communication partners or wrong information is transferred to a communication partner. An example of a factual error is when the negotiator is calling the perpetrator by the wrong name. The second type of communication error comprises judgement errors. Judgement errors are misunderstanding in the relationship of the communication partners (Bohus & Rudnicky, 2005; Skantze, 2005). An example of a judgement error is an error, which occurs, because the wrong kind of etiquette was used to address a communication partner (Vignovic & Thompson, 2010).

Trust

Trust is one of the two major factors, which plays a significant role in building a relationship (Royce, 2005). In their article, Parasuraman and Miller (2004) state that a person is rather inclined to trust another person, who behaves similar to other individuals, who were experienced as trustworthy. Furthermore, a person is more inclined to trust another person with whom interacting is enjoyed (Parasuraman & Miller, 2004). Following Parasuraman and Miller (2004, p.52) etiquette is closely related to trust, because etiquette “encodes the set of behaviours that mark individuals as members of trustworthy groups or behaviours as pleasing according to cultural norms”. Trust can be gained by the use of active listening, thus by “demonstrating understanding of and concern for [the other one]” (Noesner, 1999, p.8). Active listening within crisis negotiation is defined by Lanceley (as cited in Royce, 2005, p.10) as “the ability to see a circumstance from another’s perspective and to let the other person know that the negotiator understands his perspective”. The negotiator needs to build-up trust and to maintain this trust, so that he is able to steer the perpetrator in the direction of a peaceful resolution (Noesner, 1999). It is proposed by the literature to differentiate between different components of trust. Following McAllister (1995) trust can be subdivided into affective and cognitive trust. Affective trust comprises “interpersonal care and concern” (Vignovic & Thompson, 2010, p.267). In contrast, cognitive trust comprises “rational decision” (Vignovic & Thompson, 2010, p.267). Thereby, the rational decision is based on previous experiences. Especially experiences with other persons’ competence, reliability and responsibility are influencing the rational decision of cognitive trust. Making a communication error may lead to a depreciation of affective trust. This may result in the feeling of the perpetrator that the negotiator does not really care and concern for him. Furthermore, making a communication error may lead to a depreciation of cognitive trust. This may result in the fact that the perpetrator perceives the negotiator as less reliable. Because of its interpersonal character, it might be possible that affective trust is more affected

by judgement errors than by factual errors. Furthermore, it might be possible that cognitive trust is more affected by factual errors than by judgement errors, because of its rational character.

H1a: The making of a judgement error in a crisis negotiation will lead to less affective trust in comparison to when a factual or no error is made.

H1b: The making of a factual error in a crisis negotiation will lead to less affective trust in comparison to when no error is made.

H2a: The making of a factual error in a crisis negotiation will lead to less cognitive trust in comparison to when a judgement or no error is made.

H2b: The making of a judgement error in a crisis negotiation will lead to less cognitive trust in comparison to when no error is made.

Rapport

Rapport is the other one of the two major factors, which play a significant role in building a relationship (Royce, 2005). As trust, rapport can be build up by the use of active listening (Noesner, 1999). Regarding rapport, active listening is used to “thoughtfully communicate with the [perpetrator], defuse the conflict, and work toward establishing a level of rapport” (Noesner, 1999, p.8). On the basis of the build-up rapport options to solve the problem are explored, which contribute toward a non-violent resolution (Noesner, 1999). After the establishment of rapport the negotiator “earned the right [...] to influence the subject by suggesting resolution options” (Noesner, 1999, p.10). Concluding, it can be said that rapport heavily influences the relational aspect of communication. Making a communication error may disturb the rapport between the perpetrator and the negotiator in a crisis negotiation. This disturbance may lead to a resistance of the perpetrator, who may refuse to listen to the negotiator’s resolution options. Eventually, this may lead to a non-peaceful resolution of the crisis negotiation. Taking all the information together, rapport is closely linked to the

relationship of the perpetrator and the negotiator. Therefore, it can be expected that a judgement error, which especially affects the relational level of a message, may affect rapport more negative than a factual error.

H3a: The making of a judgement error in a crisis negotiation will lead to less rapport in comparison to when a factual or no error is made.

H3b: The making of a factual error in a crisis negotiation will lead to less rapport in comparison to when no error is made.

Willingness to Provide Information

Closely related to rapport is the willingness to provide information (Collins et al. 2002). Collins et al. (2002) examined the effect of rapport on eyewitnesses and their recall of a videotaped event. They found that participants, with whom the interviewer had built up rapport, provided more correct fractions of information than participants, with whom no rapport was created. Notably, although the amount of correct information increased, the amount of incorrect information did not increase (Collins et al., 2002). Furthermore, it was remarkable that the participants in the rapport building condition were staying longer with the interviewer and were more inclined to “thoroughly search their memories for correct information to assist the interviewer” (Collins et al. 2002, p.12). As an explanation for this Collins et al. (2002, p.12) cite their participants, which stated that the kind interviewer motivated them “to try harder” to remember more information. The study of Collins et al. (2002) shows that rapport increases the quantity and the quality of the provided information. If a communication error is made in a crisis negotiation, the rapport between the negotiator and the perpetrator may be disturbed. As mentioned above this can result in a reluctant attitude of the perpetrator against the negotiator. This reluctant attitude may be uttered in a diminished willingness of the perpetrator to provide information. If less or no information is given by the perpetrator, the negotiator barely has a chance to get in contact with the perpetrator. As no contact can be made the negotiator may be not to be able guide the

perpetrator towards a peaceful resolution. Due to the fact that rapport applies to the relationship of the communication partners and the willingness to provide information is dependent on rapport, it can also be expected that judgement errors have a more negative impact on the willingness of a person to provide information than factual errors.

H4a: The making of a judgement error in a crisis negotiation will lead to less willingness to provide information in comparison to when a factual or no error is made.

H4b: The making of a factual error in a crisis negotiation will lead to less willingness to provide information in comparison to when no error is made.

Hostility

Hostility can be defined as “a negative attitude toward one or more people that is reflected in a decidedly unfavourable judgement of the target” (Berkowitz as cited in Eckhardt et al. 2004, p.19). Following this definition, hostility does not enhance the development of a relationship, it rather diminishes the formation of a relationship. Another definition from Spielberger (as cited in Eckhardt et al., 2004, p.19) denotes hostility as “a complex set of feelings and attitudes that motivate aggressive and often vindictive behaviour”. Regarding Spielberger’s definition it appears that hostility is closely related to strong negative emotions. These strong negative emotions can manifest itself in offensive behaviour. Taking the two definitions together, it occurs that hostility is rather based on feelings than on rational logic. In a crisis negotiation the making of a communication error may enhance the hostility of the perpetrator against the negotiator. This hostility may manifest itself in aggressive behaviour of the perpetrator against the negotiator, which may impede the negotiator to direct the negotiator towards a non-violent resolution. Taking all the information together, it can be expected that judgement errors affect hostility more than factual errors, because they appeal to the relational aspect of communication.

H5a: The making of a judgement error in a crisis negotiation will lead to more hostility in comparison to when a factual or no error is made.

H5b: The making of a factual error in a crisis negotiation will lead to more hostility in comparison to when no error is made.

Recovery Strategies

Following the approach of Ferrin et al. (2007), the recovery strategies apology, denial and acceptance will be considered within the current study. Apology can be defined as “a statement that acknowledges both responsibility and regret for a trust violation” (Kim, Ferrin, Cooper, & Dirks, 2004, p.7). Therefore, an apology comprises a confession of guilt as well as redemption. In contrast, denial can be defined as “a statement whereby an allegation is explicitly declared to be untrue” (Kim et al., 2004, p.7). By denying an accusation no responsibility is taken, therefore no regret is shown. Following this, it can be said that denial only comprises a negation of the mistake and no confession of guilt. In comparison to apology and denial, acceptance, which Ferrin et al. (2007, p.893) call reticence in their study, is defined as “a statement in which the accused party explains that he or she cannot or will not confirm or disconfirm the veracity of an allegation”. Therefore, acceptance comprises neither a denial nor a confession of guilt. Acceptance leaves everything open to the perceiver.

Following the fact that only apology comprises a confession of guilt as well as redemption, it can be concluded that only apology comprises the promise that the occurred error will not reoccur again. Hereupon, it can be expected that apology will be more effective in reversing the negative effect of the communication error than denial and acceptance. For denial and accept, it is expected that both recovery strategies are equally non-effective in recovering from communication errors, because no noticeable distinction of the recovering effect of denial and accept can be found within literature (Dutta & Pullig, 2011; Ferrin et al., 2007).

H6: The use of the recovery strategy apology after a communication error (judgement or factual) is made in a crisis negotiation will lead to (a) more affective trust, (b) more cognitive trust, (c) more rapport, (d) more willingness to provide information, and (e) less hostility in comparison to when acceptance or denial are used, whereby acceptance and denial are equally valued.

Current Study

In the current study, we explore the impact of the two communication errors (i.e. judgement and factual) alongside a control condition, where no communication error is made. Across the two error conditions the three kinds of recovery strategies (i.e. apology, denial and acceptance) are distributed. All conditions are manipulated by a written scenario and a predesigned video, which create together the fictional crisis negotiation situation, in which the negotiator contacts the perpetrator via an online chat session.

Method

Design

The experiment employed a 2 (communication error: factual vs. error) x 3 (recovery strategy: apology vs. acceptance vs. denial) between subject design with a control group, within which no error was made. Participants were randomly assigned to one of the seven conditions.

Participants

Table 1 shows how many participants per condition were removed from the original dataset ($N=212$), because they did not recognize the communication error in the appropriate error condition. The original dataset was evaluated by two independent coders to identify invalid cases. Between the two coders an interrater reliability of 78.12% prevailed. The main reason for differences in their coding were cases of counter questions. After discussing this point with each other, the coders finally decided to consider counter question of the participants as a sign of empathising with the scenario. Therefore, it was decided to retain

them in the dataset. The missing error recognition was nearly equally distributed across the two error conditions (judgement error condition = 47.0%, factual error condition = 53.0%).

From the 47 participants, who fell out, 41 were German and 6 were Dutch.

The final dataset ($N=165$) consisted of a convenient sample of students from the University of Twente. Of the participants 104 were women ($M=20.40$, $SD=2.05$) and 61 were men ($M=20.92$, $SD=2.20$). Of the participants 62.40% were Dutch, 37.0% were German and 0.6% were Italian. Furthermore, 66% of the participants were studying Psychology, 27.9% Communication Sciences, 5.5% of the participants were following other technical degree programs and one participant (0.6%) did not mention his degree program at all. All participants spoke fluently Dutch and were signed-up students from the University of Twente. The number of assigned participants per condition ranged between 16 and 32 (see Table 1).

Table 1

Number of Participants and Number of Fallout per Condition

Condition	Frequency per Condition	Frequency of Fall Out per Condition
Factual-Contradict	22	8
Factual _ Apology	23	7
Factual – Accept	21	10
Judgement – Contradict	16	13
Judgement – Apology	28	2
Judgement - Accept	23	7
Control	32	-
Total	165	47

Procedure

The study was part of the dissertation of the first supervisor. Therefore, only an excerpt from the gathered data was used within the present study. Most of the participants, who were psychology and communication students, were advertised via SONA-systems to participate in the current study. For their participation, they gained 0.25 course credits. Other students, who studied something different from psychology and communication, were advertised via social media to take part in the current study. They could participate via an

external link, which was not linked to SONA-systems. Therefore, the participants, who took part via the external link, had no incentive to participate.

The task of the participants was to put their selves into the following written scenario: *You are a second-year student from the University of Twente and you are living in a difficult family situation. Your father is violent and your mother is an alcoholic. Since two years, you are financing your study on your own and you have stolen smaller things every now and then. Because the tuition fee was due to pay, you have no more money left to buy the required study books. This morning you have found a weapon in your mother's night stand and you are afraid that your mother will harm herself. Therefore, you take the weapon, put it into your schoolbag and go to school.* The written scenario was followed by a video to make it easier for the participants to imagine the given scenario. The video contained no sound and was recorded from the first-person perspective, so that the participants had the feeling to be the person who acts within the video. The video comprised a duration of 29 seconds and showed the following scene: *In the heat of the moment you steal the cash box of a student association, which is noticed by another person. Therefore, you flee into an empty, nearby room, where you barricade yourself. You remember your mother's weapon in your schoolbag and shout in panic that you have a weapon and that you will shoot anyone, who will try to enter the room.* Furthermore, the participants got informed that the police was called and would try to get in contact with them. Afterwards a virtual chat session was opened with the annotation that unfortunately no video contact could be made with the police. This annotation was made to make it more authentic that the participant was chatting with another real person. The virtual chat session consisted out of six questions from the police negotiator Anne. Hereupon, the participants had to give answers. Anne first asked four questions about the participants and their current situation (Hey Anne from the police here, who am I talking to?; I heard that you have barricaded yourself in a room?; And how about the theft?; Can you tell me more about

it?). In the error manipulation, Anne randomly sent one of the following chat messages to the participants: (1) “Ok. So, you are for the first time here on campus.” (factual error), (2) “Ok. So, you stole out of boredom.” (judgement error) or (3) “Ok. So, you are studying here at the UT”. (no error). In the following recovery strategy manipulation, Anne randomly sent one of the following three chat messages: (1) “I did not get it wrong.” (denial), (2) “I got it wrong, sorry.” (apology) or (3) “I have noted everything.” (acceptance). Only after the no error condition the recovery strategy acceptance was always used. Following the manipulation, Anne furthermore asked two more questions about the current situation of the participants (Are you alone in the room?; What are your plans?). After the participants had answered all questions, a message appeared on the screen that the internet connection had been broken. After a while the participants were asked if they wanted to get in contact with Anne again. Hereafter, the participants were asked to fill in questions regarding the dependent variables. Furthermore, some demographic data (age, gender, nationality, study and academic year) was gathered. After answering all parts of the questionnaire the participants had completed their participation. The whole procedure can be found in Appendix 1.

Dependent Variables

Affective trust.

Affective trust was measured using three out of five items from a questionnaire of Colquitt, LePine, Piccolo, Zapata, and Rich (2012). Two items of the questionnaire were not used, because they were not suitable for the context of the crisis negotiation scenario. The items were formulated as statements, e.g., “Anne and I would both share our ideas and feelings with each other”. The statement could be evaluated on a five-point Likert-scale, which ranged from “fully disagree” to “fully agree”. The three items regarding affective trust had an alpha coefficient from 0.81.

Cognitive trust.

Cognitive trust was measured using five out of six items from the questionnaire of Colquitt et al. (2012). Only one item was discarded as it did not match the crisis negotiation scenario, but focused on a job relationship. The five items regarding cognitive trust were also formulated as statements, e.g. “Anne approaches his/her job with dedication.” The statement could also be evaluated on a five-point Likert-scale, which ranged from “fully disagree” to “fully agree”. The items regarding cognitive trust had an alpha coefficient from 0.74.

Rapport.

Rapport was measured by using the five items of the questionnaire from Drolet and Morris (2000). The items were formulated as questions. One question was for example “Did you have had the feeling that you understood what the other wanted to say?”. The questions could be answered on a seven-point Likert-scale. The scale ranged from “not at all” to “to a great extent”. The questions were stated relating to the negotiator. These five items had an alpha coefficient of 0.80.

Willingness to provide information.

To measure the willingness to provide information three items from Beune, Giebels, Adair, Fennis, and Van der Zee (2011) were used. The items were formulated as statements. One statement was for example “I would tell Anne everything”. The items could be answered on a five-point Likert-scale, which ranged from “fully disagree” to “fully agree”. The three items had an alpha coefficient of 0.87.

Hostility.

Hostility was measured with six items relating to negative affect of the PANAS-X-NA scale from Watson (1994). The items were formulated as statements. One item was for example: “During the conversation ... I felt angry”. The statements could be evaluated on a

five-point Likert-scale, which ranged from “not at all” to “a lot”. The six items had an alpha coefficient of 0.74.

Results

Table 2 shows the means, standard deviations and correlations of the dependent variables. The means itself ranged from 2.40 to 3.40 with standard deviations ranging from 0.10 to 1.09. Furthermore, Table 2 shows that most of the dependent variables strongly correlated with each other. Four of the variables correlated in a positive manner with each other and each of the four variables correlated negatively with hostility. This negative correlation was expected, because hostility is negatively valued due to the building and maintaining of a relationship, while trust (affective and cognitive), rapport and the willingness to provide information are positively valued.

Table 2

Means, Standard Deviations and Correlations of the Dependent Variables

Dependent Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Affective Trust	2.40	0.10		0.54**	0.62**	0.68**	-0.08
2. Cognitive Trust	3.09	0.68			0.57**	0.48**	-0.25**
3. Rapport	3.40	1.04				0.47**	-0.18*
4. Information Provision	2.47	1.09					-0.15
5. Hostility	2.71	0.72					

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

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

Hypothesis Testing

Error conditions,

Table 3 shows the means of the dependent variables per error condition. They ranged from 2.24 to 3.56 with standard deviations ranging from 0.63 to 1.15.

Table 3

Means of the Dependent Variables per Error Condition

Dependent Variables	Mean Values					
	Judgement (<i>n</i> = 67)		Factual (<i>n</i> = 66)		Control (<i>n</i> = 32)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Affective Trust	2.24	0.96	2.57	1.04	2.40	0.96
Cognitive Trust	2.98	0.63	3.20	0.69	3.09	0.75
Rapport	3.29	0.96	3.43	1.10	3.56	1.10
Information Provision	2.50	1.07	2.48	1.15	2.40	1.02
Hostility	2.77	0.71	2.56	0.68	2.90	0.76

The hypotheses were tested each with a one-way ANOVA and if applicable were followed by independent sample t-tests. Hypothesis 1a implied that making a judgement error will lead to less affective trust in comparison to when a factual error or no error is made. Furthermore, from hypothesis 1b it was expected that making a factual error will lead to less affective trust in comparison to when no error is made. No significant difference in scores was found between the three conditions, $F(2,164)=1.75$, $MSE=0.99$, $p=0.18$, $\eta^2=0.02$. Therefore, H1a and H1b are not supported. Looking at the means itself, it can be said that making a judgement error ($M=2.24$, $SD=0.96$) led to less affective trust than either making a factual error ($M=2.57$, $SD=1.04$) or no error ($M=2.40$, $SD=0.96$). This is in line with hypothesis 1a. However, contrary to hypothesis 1b, the means indicate that making a factual error led to similar levels or even less trust compared to making no error. It is noticeable that the mean value of the control condition is lying between the mean value of the judgement and the factual error condition.

Hypothesis 2a stated that making a factual error will lead to less cognitive trust in comparison to when a factual or no error is made. Furthermore, hypothesis 2b implied that making a judgement error will lead to less cognitive trust in comparison to when no error is made. No significant difference in scores was found between the three conditions, $F(2,164)=1.66$, $MSE=0.46$, $p=0.20$, $\eta^2=0.02$. Therefore, H2a and H2b are not supported. Contrary to hypothesis 2a, a factual error ($M=3.20$, $SD=0.69$) led to more cognitive trust compared to a judgement error ($M=2.98$, $SD=0.63$) or no error ($M=3.09$, $SD=0.75$). In line

with hypothesis 2b is that making a judgement error led to less cognitive trust compared to making no error. It is noticeable that the mean value of the control condition is lying between the mean value of the judgement and the factual error condition.

Hypothesis 3a implied that making a judgement error will lead to less rapport in comparison to when a factual or no error is made. Hypothesis 3b stated that making a factual error will lead to less rapport in comparison to when no error is made. No significant difference in scores was found between the three conditions, $F(2,164)=0.74$, $MSE=1.09$, $p=0.48$, $\eta^2=0.01$. Therefore, H3a and H3b are not supported. In line with hypothesis 3a is that making a judgement error ($M=3.29$, $SD=0.96$) led to less rapport compared to making a factual error ($M=3.43$, $SD=0.63$) or no error ($M=3.56$, $SD=1.10$). Furthermore, in line with hypothesis 3b is that making a factual error led to less cognitive trust compared to making no error. It is noticeable that the mean value of the control condition is lying above the mean value of the judgement and the factual error condition.

Hypothesis 4a indicated that making a judgement error will lead to less willingness to provide information compared to when a factual error or no error is made. Hypothesis 4b stated that making a factual error will lead to less willingness to provide information compared to when no error is made. No significant difference in scores was found between the three conditions, $F(2,164)=0.11$, $MSE=1.20$, $p=0.90$, $\eta^2=0.001$. Therefore, H4a and H4b are not supported. Contrary to the expectations of hypothesis 4a, making a judgement error ($M=2.50$, $SD=1.07$) led to more willingness to provide information compared to the making of a factual error ($M=2.48$, $SD=1.15$) or no error ($M=2.40$, $SD=1.02$). Furthermore, contrary to the expectations of hypothesis 4b, making a factual error also led to more willingness to provide information compared to the no error condition. The mean value of the control condition is lying beneath the mean value of the judgement and the factual error condition.

Hypothesis 5a implied that making a judgement error will lead to more hostility in comparison to when a factual or no error is made. Hypothesis 5b indicated that making a factual error will lead to more hostility compared to when no error is made. No significant difference in scores was found between the three conditions, $F(2,164)=2.75$, $MSE=0.50$, $p=0.067$, $\eta^2 =0.03$. Therefore, H5a and H5b are not supported. Looking at the means, it can be said that making a judgement error ($M=2.77$, $SD=0.71$) led to more hostility compared to the making of a factual error ($M=2.56$, $SD=0.68$) but not compared to making no error ($M=2.90$, $SD=0.76$). This finding is only partially line with the expectations of hypothesis 5a and against the expectations of hypothesis 5b. It is noticeable that the mean value of the control condition is lying above the mean value of the judgement and the factual error condition.

Recovery strategies.

Table 4 shows the means of the dependent variables per recovery strategy. The means ranged from 2.12 to 3.82 with standard deviations ranging from 0.62 to 1.21.

Table 4
Means of the Dependent Variables per Recovery Strategy

Dependent Variables	Recovery Strategy					
	Apology (n = 51)		Contradict (n = 38)		Accept (n = 44)	
	M	SD	M	SD	M	SD
Affective Trust	2.72 ^{b,c}	1.04	2.12 ^a	0.91	2.28 ^a	0.98
Cognitive Trust	3.14	0.62	2.98	0.74	3.13	0.67
Rapport	3.82 ^{b,c}	0.87	3.04 ^a	0.98	3.10 ^a	1.07
Information Provision	2.61	1.21	2.42	1.01	2.42	1.08
Hostility	2.51	0.62	2.77	0.66	2.76	0.81

Note. ^a Differs significantly from Apology, $p < .05$
^b Differs significantly from Contradict, $p < .05$
^c Differs significantly from Accept, $p < .05$

Hypothesis 6 implicated that the use of the recovery strategy apology after a communication error (judgement or factual) is made will lead to (a) more affective trust, (b) more cognitive trust, (c) more rapport, (d) more willingness to provide information, and (e) less hostility in comparison to when acceptance or denial are used as recovery strategies, whereby acceptance and denial are equally valued. To test this hypothesis every sub-item (a-e) was separately considered.

Affective trust.

A significant difference in scores was found between the three conditions, $F(2,130)=4.37$, $MSE=0.97$, $p=0.01$, $\eta^2=0.06$. Further analysis showed that the scores significantly differed between the recovery strategy apology and contradict ($t(87)=-2.83$, $p=0.01$), indicating that the use of the recovery strategy apology ($M=2.72$, $SD=1.04$) led to more affective trust compared to when contradict ($M=2.12$, $SD=0.91$) was used as a recovery strategy. Furthermore, also a significant difference in scores was found between apology and accept ($t(93)=2.12$, $p=0.04$), indicating that apology ($M=2.72$, $SD=1.04$) as a recovery strategy led to more affective trust compared to the recovery strategy accept ($M=2.82$, $SD=0.98$). As it was expected from the literature, no significant difference in affective trust was found between the two recovery strategies accept and contradict ($t(80)=-0.75$, $p=0.46$), indicating that it made no difference if accept ($M=2.82$, $SD=0.98$) or contradict ($M=2.12$, $SD=0.91$) was used as a recovery strategy. Therefore, hypothesis 6a is supported. It is noticeable that the mean value of the recovery strategy accept is lying between the mean values of the recovery strategy apology and contradict.

Cognitive trust.

No significant difference in scores was found between the three conditions, $F(2,130)=0.71$, $MSE=0.46$, $p=0.49$, $\eta^2=0.01$. Therefore, hypothesis 6b is not supported. In line with hypothesis 6b, using apology as a recovery strategy ($M=3.14$, $SD=0.62$) led to more cognitive trust compared to the use of contradict ($M=2.98$, $SD=0.74$) or accept ($M=3.13$, $SD=0.67$). Contrary to the expectations of hypothesis 6b, accept also led to more cognitive trust than contradict. It is noticeable that the mean value of the recovery strategy accept is lying between the mean values of the recovery strategy apology and contradict.

Rapport.

A significant difference in scores between the three conditions was found, $F(2,130)=9.36$, $MSE=0.94$, $p=0.001$, $\eta^2=0.13$. In a further analysis, a significant difference in scores was found between apology and contradict ($t(87)=-3.97$, $p=0.001$), indicating that apology ($M=3.82$, $SD=0.87$) as a recovery strategy led to more rapport compared to contradict ($M=3.04$, $SD=0.98$). Furthermore, a significant difference was found between apology and accept ($t(93)=3.62$, $p=0.001$), indicating that apology ($M=3.82$, $SD=0.87$) as a recovery strategy led to more rapport in comparison to accept ($M=3.10$, $SD=1.07$). As expected from the literature, no significant difference was found between the recovery strategy accept and contradict ($t(80)=-0.25$, $p=0.80$), indicating that it did not make a difference if accept or contradict was used as a recovery strategy. Therefore, hypothesis 6c is supported. It is noticeable that the mean value of the recovery strategy accept is lying between the mean values of the recovery strategy apology and contradict.

Willingness to provide information.

No significant difference in scores between the three conditions was found, $F(2,130)=0.44$, $MSE=1.24$, $p=0.65$, $\eta^2=0.01$. Therefore, H6d is not supported. In line with hypothesis 6d, using apology as a recovery strategy ($M=2.61$, $SD=1.21$) led to more cognitive trust compared to using contradict ($M=2.42$, $SD=1.01$) or accept ($M=2.42$, $SD=1.08$), which appeared to be equally valued. It is noticeable that the mean values of the recovery strategies contradict and accept are lying underneath the mean value of the recovery strategy apology.

Hostility.

No significant difference in scores between the three conditions was found, $F(2, 130)=2.11$, $MSE=0.48$, $p=0.13$, $\eta^2=0.03$. Therefore, H6e is not supported. In line with hypothesis 6e, making use of apology ($M=2.51$, $SD=0.62$) as a recovery strategy led to less hostility compared to the use of contradict ($M=2.77$, $SD=0.66$) or accept ($M=2.76$, $SD=0.81$),

which appeared to be equally valued. It is noticeable that the mean values of the recovery strategies contradict and accept are lying above the mean value of the recovery strategy apology.

Discussion

Looking at the literature of communication error management and bringing it into the context of crisis negotiations, it can be expected that judgement errors made by the negotiator weigh more heavily in destructing the relationship to the perpetrator compared to factual errors or making no error. To analyse the effect of communication errors and possible recovery strategies onto the relationship of a perpetrator and a negotiator in a crisis negotiation five different outcome variables were considered in detail. These variables were affective trust, cognitive trust, rapport, the willingness to provide information and hostility. Looking at the results with regard to the made error (judgement and factual) onto these dependent variables, it is striking that making a communication error seems to have no significant effect on any of these variables. While the effect of the communication errors on hostility were almost significant, the effects on the other four variables were explicitly not significant. A reason for the missing effect of the communication errors in the current study may be related to language problems of non-native speakers. Although all participants spoke Dutch fluently, 37.06% of the participants were non-native speakers and especially the non-native speakers were the ones, who did not recognize the communication errors. Of the participants, who did not recognized the communication error, 87% were non-native speakers. One possible conclusion is that speaking a language fluently as a non-native speaker does not necessarily imply that the language is handled in the way a native-speaker would do. Because the non-error recognition was nearly equally distributed across the two error recognitions (judgement error condition = 47.0%, factual error condition = 53.0%), it seems likely that the missing error recognition can be explained by a possible unclear wording of both errors for

the non-native participants. A possible implication for future research would therefore be to only include native-speakers. Another possible implication for future research would be to provide also an English and maybe also a German version of the study. Thereby, the participants can probably choose the language, which they can handle on the level of a native-speaker. Another explanation for the missing error recognition might be that the participants in question were more distracted than the other participants. The participants, who did not recognize the error, were mainly surrounded by music, television or other persons, who distracted them. A possible implication for future research regarding the problem of distraction, might be to remind the participants in the beginning of the study to choose a calm and quiet surrounding for their participation, so that they avoid distraction as much as possible.

Furthermore, it is noticeable that the mean values of the control condition mostly lie between the mean values of the judgement and the factual error condition. Regarding the dependent variables hostility and rapport, it is especially striking that the mean value is highest for the control condition compared to the two error conditions. Therefore, the assumption is likely that the control condition is not the neutral counterpart to the experimental conditions as it was planned to be. A possible explanation for the missing neutrality of the control condition might be that making a communication error is not as negatively valued as it was expected from the literature. Regarding the means, it can be seen that especially affective trust and cognitive trust were higher after a factual error was made, compared to when a judgement error or no error was made. Furthermore, information provision was higher after a judgement error was made compared to a factual error or no error. Further in line with this notion is that hostility was lower after a judgement or a factual error was made compared to when no error was made. It might be possible that making a communication error during a crisis negotiation is not as detrimental to the relationship of the

perpetrator and the negotiator as it was expected from the literature. A neutral, faultless conversation lead by the negotiator, as it was provided in the control condition, may give the feeling to the perpetrator to interact with an inapproachable counterpart. Thereby, the perpetrator may perceive the negotiator as more dominant. It may be that the making of a communication error and the usage of an adequate recovery strategy afterwards rather strengthen the relationship between the perpetrator and the negotiator in a crisis negotiation than diminish it. Because the interaction effects between the made communication error and the used recovery strategy were not considered in the current study, no detailed explanation can be given to this last proposition. Therefore, an implication for future research would be to take a look at these interaction effects and compare them to the effects of the control group, where no error is made. This would enlarge the informative value of the current study and it would enable to give a more precise explanation.

Looking at the recovery strategies only an effect on the dependent variables affective trust and rapport was found, while no effects were found for cognitive trust, the willingness to provide information and hostility. After a communication error, judgement as well as factual, an apology had an enhancing effect on affective trust compared to contradict and accept. Although no significant difference between accept and contradict could be found, the results indicate that accept leads also to more affective trust compared to contradict. Regarding rapport, using apology as recovery strategy leads to more rapport compared to contradict and accept. Although, no significant difference was found between contradict and accept, an indication is also given that accept leads to more rapport compared to contradict. The indication of the present, but not significant recovering effect of accept as a recovery strategy is in contrast to the findings of Ferrin et al. (2007). Within their study regarding trust violations of organizations they found that “[acceptance] is usually, if not always, suboptimal” (Ferrin et al., 2007, p. 904). These difference in findings, may lead to the

conclusion that recovery strategies may have different effects in different settings. The suggestion is likely that accept may be an acceptable recovery strategy within crisis negotiations but not within trust violations of organization. This difference in effectiveness might be, because a crisis negotiation is a more personal relationship, whereas organization-client relationships are mere impersonal, because no direct communication takes place. Nonetheless, future research is needed to confirm this found difference and to expand the knowledge about the effects of recovery strategies in other settings. Regarding denial the findings of the current study are in line with the findings of Dutta and Pullig (2011). They found out that “denial is an unacceptable response regardless of [brand] crisis type” (Dutta & Pullig, 2011, p.1286). Similar indications are given by the results of the current study, which reveal that denial is least effective in restoring affective trust and rapport. In their study, Dutta and Pullig (2011) combined apology with a corrective action, where the responsibility for the error was taken, remedial steps were exhibited and promises regarding the prevention of future brand crisis were given. Taking their approach of corrective action into account, it would be interesting for future research to compare the effect of a plain apology and an apology with corrective action with each other.

A further implication for future research is to use a more liberal statistical test to test the hypotheses, especially the b-hypotheses. In the current study it was chosen to conduct conservative analyses by executing ANOVAs. Only if the indication was given by the result of an ANOVA further t-tests were executed. It was chosen for this conservative style of analysis, because it was intended to keep the making of a Type 1 error as small as possible (Hilton & Armstrong, 2006). By keeping the level of Type 1 errors as small as possible, i.e. keeping the amount of false-positives lower than expected, the executed ANOVAs tended to be conservative but still valid (Friston, Penny, & Glaser, 2005). If it was chosen for a more

liberal test, the risk would have been present that the test gets invalid. Keeping this in mind, a less conservative test for future research has to be carefully chosen.

Another implication for future research is to use another, modified scenario. The current scenario was used, because it appeared to be effective and working in former studies. Based on this prior proof it was chosen to adopt this scenario in the current study as well. However, some of the participants complained that the scenario was not realistic enough and that the missing realism hindered their ability to imagine the scenario. Especially the circumstances of the protagonist were problematic for some of the participants. With a violent father and an alcoholic mother, the protagonist is a poor student, who is only concerned about how to pay for the study books. For some participants of the current study, this facts does not occurred realistic to them. An alternative, less dramatic scenario can be found in Appendix 2. This alternative scenario could be used within future research to enable the participants to identify more with the protagonist of the scenario.

A further suggestion for future research would be to get in contact with Anne in form of a telephone or video call. In the current study it was chosen to implement a chat session, because thereby the participants did not need any audio or camera device to take part. Therefore, it was ensured that the participants could easily take part from home. Another reason for using a chat session was that Anne had no distinct gender. At present, Anne can be a man as well as a woman, because Anne is a Dutch name, which is used for men as well as for women. Leaving the decision to talk to a man or a woman open to the participants gave the participants more freedom to handle the contact with Anne in their favoured way. However, an advantage of using a telephone or video call would be that the participants would probably be more personally involved into the study. It could be possible that the participants would be more inclined to identify with the scenario if a telephone or video call would be established. Another advantage of using a telephone or video call would be that the

intonation could be also taken into account during the study. On the one hand, this would enlarge the informative value of the statements given by the participants. On the other hand, taking the intonation into account would make the study more complex, because audio material has to be analysed with a distinct coding scheme. Another advantage of using video calls would be to be able to also analyse the mimic and gestures of the participants during the conversation. On the one hand, this would furthermore enlarge the informative value of the participants' statements. On the other hand, taking mimic and gestures into account would furthermore require additional coding schemes. This would furthermore complicate the study. Concluding, using a telephone or video call would definitely raise new practical problems of how to implement such an element into the study, but anyway it would also enable to analyse the conversation on more levels. Therefore, it could be a worthwhile suggestion for future research.

Studying communication errors in the setting of crisis negotiations is important, because communication errors occur and the effect of communication errors onto interpersonal factors between a perpetrator and a negotiator is not known. The question arises: do communication errors impair relationships at all? Unfortunately the current study cannot give a clear answer to this question. Concluding it can be said that the current study indicates that communication errors seem to have an effect on interpersonal constructs as trust (affective and cognitive), rapport, the willingness to provide information and hostility. But no significant differences were found regarding these effects. Furthermore, it is important to know how to react after a communication error has been made. Here the question arises: which recovery strategy is the best to recover from a communication error? Concluding, the results of the current study indicate that apology compared to contradict and accept has a restoring effect on affective trust and rapport. Furthermore, the results seem to indicate a restoring effect onto interpersonal factors by using accept instead of contradict. But no

significant differences were found regarding this effect. The limitations named above offer a lot of possibilities for future research. More research is needed to be able to properly estimate the effect of communication errors in crisis negotiations and to give clear advises about which recovery strategies should be used after which kind of communication error.

References

- Abbe, A., & Brandon, S. E. (2014). Building and maintaining rapport in investigative interviews. *Police Practice and Research, 15*(3), 207-220. doi: 0.1080/15614263.2013.827835
- Beune, K., Giebels, E., Adair, W.L., Fennis, B.M., & Van der Zee, K.I. (2011). Strategic sequences in police interviews and the importance of order and cultural fit. *Criminal Justice and Behavior, 38*, 934-954. doi:10.1177/0093854811412170
- Bierhoff, H. (2014). Kommunikation. In M. A. Wirtz (Ed.), *Dorsch – Lexikon der Psychologie* (p. 526). Bern: Verlag Hans Huber.
- Bohus, D., & Rudnicky, A. I. (2005). Sorry, I didn't catch that. In L. Dybkjaer & W. Minker (Eds.). *Recent trends in discourse and dialogue* (pp. 123-154). Dordrecht, NL: Springer.
- Collins, R., Lincoln, R., & Frank, M. G. (2002). The effect of rapport in forensic interviewing. *Psychiatry, Psychology and Law, 9*(1), 69-78. doi:10.1375/pplt.2002.9.1.69
- Colquitt, J. A., LePine, J. A., Piccolo, R. F., Zapata, C. P., & Rich, B. L. (2012). Explaining the justice-performance relationship: Trust as exchange deepener or trust as uncertainty reducer? *Journal of Applied Psychology, 97*(1), 1-15. doi: 10.1037/a0025208
- Dolnik, A. (2004). Contrasting dynamics of crisis negotiations: barricade versus kidnapping incidents. *International Negotiation, 8*(3), 495-526. doi: 10.1163/1571806031310806
- Drolet, A. L., & Morris, M. W. (2000). Rapport in conflict resolution: Accounting for how face-to-face contact fosters mutual cooperation in mixed-motive conflicts. *Journal of Experimental Social Psychology, 36*(1), 26-50. 10.1006/jesp.1999.1395

- Dutta, S., & Pullig, C. (2011). Effectiveness of corporate responses to brand crises: The role of crisis type and response strategy. *Journal of Business Research*, 64(12), 1281-1287. doi:10.1016/j.jbusres.2011.01.013
- Eckhardt, C., Norlander, B., & Deffenbacher, J. (2004). The assessment of anger and hostility: A critical review. *Aggression and Violent Behavior*, 9(1), 17-43. doi:10.1016/S1359-1789(02)00116-7
- Ferrin, D. L., Kim, P. H., Cooper, C. D., & Dirks, K. T. (2007). Silence speaks volumes: the effectiveness of reticence in comparison to apology and denial for responding to integrity-and competence-based trust violations. *Journal of Applied Psychology*, 92(4), 893. doi:10.1037/0021-9010.92.4.893
- Friston, K. J., Penny, W. D., & Glaser, D. E. (2005). Conjunction revisited. *Neuroimage*, 25(3), 661-667. doi: 10.1016/j.neuroimage.2005.01.013
- Halverson, A. L., Casey, J. T., Andersson, J., Andersson, K., Park, C., Rademaker, A. W., & Moorman, D. (2011). Original communications. Communication failure in the operating room. *Surgery*, 149, 305-310. doi:10.1136/qshc.2003.008425
- Hilton, A., & Armstrong, R. (2006). Statnote 6: Post-hoc ANOVA tests. *Microbiologist*, 7(3), 34-36. doi:10.1002/9780470905173.ch7
- Ireland, C. A. (2010). Crisis Negotiation. In Brown, J. M., & Campbell, E. A. (Eds.), *The Cambridge handbook of forensic psychology* [DX Reader version]. Retrieved from <https://books.google.de/books>
- Kim, P. H., Ferrin, D. L., Cooper, C. D., & Dirks, K. T. (2004). Removing the shadow of suspicion: the effects of apology versus denial for repairing competence-versus integrity-based trust violations. *Journal of applied psychology*, 89(1), 104. doi:10.1037/0021-9010.89.1.104

- Lingard, L., Espin, S., Whyte, S., Regehr, G., Baker, G. R., Reznick, R., Bohnen, J., Orser, B., Doran, D., and Grober, E. (2004). Communication failures in the operating room: an observational classification of recurrent types and effects. *Quality Safety and Health Care*, 13, 330-334. doi:10.1016/j.surg.2010.07.051
- McAllister, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of management journal*, 38(1), 24-59. doi:10.2307/256727
- Noesner, G. W. (1999). Negotiation concepts for commanders. *FBI Law Enforcement Bulletin*, 68, 6-14. doi:10.1037/e313102004-002
- Parasuraman, R., & Miller, C. A. (2004). Trust and etiquette in high-criticality automated systems. *Communications of the ACM*, 47(4), 51-55. doi:10.1145/975817.975844
- Royce, T. (2005). The negotiator and the bomber: Analyzing the critical role of active listening in crisis negotiations. *Negotiation Journal*, 21(1), 5-27. doi:10.1111/j.1571-9979.2005.00045.x
- Skantze, G. (2005). Exploring human error recovery strategies: Implications for spoken dialogue systems. *Speech Communication*, 45(3), 325-341. doi:10.1016/j.specom.2004.11.005
- Van Hasselt, V. B., Baker, M. T., Romano, S. J., Sellers, A. H., Noesner, G. W., & Smith, S. (2005). Development and validation of a role-play test for assessing crisis (hostage) negotiation skills. *Criminal Justice and Behavior*, 32(3), 345-361. doi:10.1177/0093854804274374
- Vignovic, J. A., & Thompson, L. F. (2010). Computer-mediated cross-cultural collaboration: Attributing communication errors to the person versus the situation. *Journal of Applied Psychology*, 95(2), 265-276. doi:10.1037/a0018628

Watson, D., & Clark, L. A. (1994). The PANAS-X: Manual for the positive and negative affect schedule - Expanded form (revised 8/1999). Unpublished manuscript, University of Iowa.

Watzlawick, P., Beavin, J., & Jackson, D. (2011). Menschliche Kommunikation. Formen, Störungen, Paradoxien. Bern: Verlag Hans Huber.

Appendix 1 – The Questionnaire

Inhoud

Blok 1: Vooraf-Screen en Introductie

Blok 2: Informed Consent

Blok 3: Scenario

Blok 4: Deel 1 onderhandeling

Blok 5-11: Deel 2.1-2.7 manipulatie

Blok 12: Deel 3 onderhandeling

Blok 13: Vragen over gevoelens

Blok 14: Vragen over onderhandelaar

Blok 15: Demografische kenmerken

Blok 16: Check survey

Blok 17: Course edits

Blok 18: Debriefing

Blok 1: Vooraf-Screen en Introductie

1. Vragen vooraf (alleen niet SONA-participanten)

Ben je een student van de Universiteit Twente?

- Ja Nee

Spreek je vloeiend Nederlands?

- Ja Nee

2. Als een van de vragen met “Nee” beantwoord wordt, komt de volgende screen:

Helaas hoor je niet bij de doelgroep van de studie, omdat je niet aan de nodige voorwaarden voldoet. Voor ons onderzoek zijn we op zoek naar student van de Universiteit Twente, die vloeiend Nederlands praten. Desalniettemin, bedankt voor het meewerken!

3. Introductie

Fijn dat je mee wilt werken aan het onderzoek: *Afstand houden of ik schiet!* In dit onderzoek willen we je vragen je voor te stellen dat je - wegens omstandigheden en in een opwelling - een kistje geld hebt gestolen in de Cubicus. Helaas word je betrapt. Daarop ren je weg en sluit je je op in een ruimte.

In dit online onderzoek willen wij erachter komen hoe je om zult gaan met deze situatie en hoe jij zult reageren op pogingen van de politie om met je in contact te komen. Het is belangrijk dat je je zo goed mogelijk probeert in te leven in de situatie en zo natuurlijk mogelijk probeert te reageren. Om je goed te laten inleven, maken we gebruik van een filmpje. Met behulp van dat filmpje kijk je door de ogen van de diefstalpleger en eindig je in de gebarricadeerde ruimte. Daarna zal de politie (iemand van een speciale politie opleiding) daadwerkelijk contact met je zoeken en in gesprek gaan. Na afloop zullen we je wat algemene vragen over het gebeuren stellen.

Het onderzoek zal ongeveer 20-30 minuten in beslag nemen. Het onderzoek is onderdeel van het promotieonderzoek van Miriam Oostinga. Zij wordt hierin begeleid door prof.dr. Ellen Giebels en prof.dr. Paul Taylor. Miriam Oostinga voert dit onderzoek uit in samenwerking met verschillende studenten van de politieacademie en bachelor studente Caroline Lennecke.

Blok 2: Informed Consent

1. Informed consent

‘Ik verklaar hierbij op voor mij duidelijke wijze te zijn ingelicht over de aard en methode van het onderzoek, zoals uiteengezet in de voorgaande uitleg. Mijn vragen zijn naar tevredenheid beantwoord. Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud daarbij het recht deze instemming weer in te trekken zonder dat ik daarvoor een reden hoef op te geven en besef dat ik op elk moment mag stoppen met het experiment. Indien mijn onderzoeks-resultaten gebruikt zullen worden in wetenschappelijke publicaties, dan wel op een andere manier openbaar worden gemaakt, zal dit volledig geanonimiseerd gebeuren. Mijn persoons-gegevens zullen niet door derden worden ingezien zonder mijn uitdrukkelijke toestemming. Als ik nog verdere informatie over het onderzoek zou willen krijgen, nu of in de toekomst, kan ik me wenden tot Miriam Oostinga, m.s.d.oostinga@utwente.nl.’

Voor eventuele klachten over dit onderzoek kun je je wenden tot de secretaris van de Commissie Ethiek van de faculteit Gedragwetenschappen van de Universiteit Twente, mevr. J. Rademaker (telefoon: 053-4894591; e-mail: j.rademaker@utwente.nl, Postbus 217, 7500 AE Enschede).

2. Handtekening student (kopieer onderstaande tekst):

.....

3. ‘Ik heb toelichting verstrekt op het onderzoek. Ik verklaar mij bereid nog opkomende vragen over het onderzoek naar vermogen te beantwoorden.’

Miriam Oostinga

Blok 3: Scenario

1. Scenario

We willen je vragen om je in te leven in de volgende situatie:

Je bent tweedejaars student aan de Universiteit Twente. Jouw familieomstandigheden zijn heel moeilijk. Je vader is gewelddadig en je moeder alcoholist. Gezien je thuissituatie vlucht je vaak van huis. Daardoor heb je meer tijd op straat doorgebracht dan thuis. Hier heb je een aantal kleine diefstallen gepleegd: een paar keer een fiets gestolen en wel eens geshopt zonder af te rekenen. Je studie moet je al twee jaar zelf betalen en daarom heb je ook vaak geldnood. Het collegejaar is net begonnen en je moest het collegegeld betalen. Nu heb je geen geld meer over voor je boeken.

Vanochtend heb je een wapen in het nachtkastje van je moeder gevonden. Je vreest dat ze zichzelf iets wil aandoen, omdat ze al vaker aangegeven heeft dat ze het niet meer ziet zitten. Je stopt het wapen in je tas om ergere situaties te voorkomen en fietst naar de UT.

Als je na jouw college door de Cubicus loopt zie je een kraampje staan. Een studievereniging heeft geld ingezameld. De kraam is leeg en als je dichterbij komt zie je dat iemand vergeten is het geldkistje mee te nemen. Zonder erover na te denken grijp je het geldkistje en loop je weg. Ineens zie je studenten roepen dat je het geldkistje gestolen hebt. Je raakt in paniek en rent weg. Je ziet dat een kamer in de Cubicus open staat. Je loopt binnen en sluit jezelf op in de kamer.

Volgende pagina

2. Bekijk onderstaand filmpje om te kijken hoe het precies is gegaan. Het is vanuit de eerste persoon gefilmd. Beeld je dus in dat dit is wat je ziet.

Video: <https://www.youtube.com/watch?v=vUXabN9wKLY>

Volgende Pagina

3. Stel je het volgende vervolgsценario voor: Je hebt het geld van de studievereniging gestolen, je zit in die kamer in de Cubicus en je herinnert je het wapen in jouw tas. Je roept dat je een wapen bij je hebt en dat je gaat schieten als iemand bij de kamer in de buurt komt. Binnen korte tijd zijn alle mensen naar buiten gevlucht en is de politie ingeschakeld. Er wordt contact met je gezocht via de computer door iemand van de politie. Om de anonimiteit van de deelnemers te waarborgen, heeft iedereen een willekeurig nummer gekregen.

Jouw nummer is 150

Het kan enkele minuten duren voordat de politie reageert.

Plaatje draaiende cirkel.

Tijd gependend op deze pagina.

Blok 4: Deel 1 onderhandeling

1. Helaas is het niet gelukt om videocontact met de politie te maken. Daarom zullen jullie enkel via de chat met elkaar kunnen praten.

Anne stuurt je het volgende bericht:

Hoi Anne van de politie hier, met wie spreek ik?

2. Vul hieronder het antwoord in.

...

Volgende pagina:

3. Respondent 150 zei: *Kopie bericht student*

Tijd

4. Anne is nu aan het typen

5. *Tijd gespendeerd op deze pagina.*

Volgende pagina:

6. Anne heeft het volgende bericht gestuurd:

Ik heb gehoord dat je jezelf opgesloten hebt op een kamer?

Tijd

7. Vul hieronder het antwoord in.

...

Volgende pagina:

8. Respondent 150 zei: *Kopie bericht student*

Tijd

9. Anne is nu aan het typen

10. *Tijd gespendeerd op deze pagina.*

Volgende pagina:

11. Anne heeft het volgende bericht gestuurd:

En hoe zit het met de diefstal?

Tijd

12. Vul hieronder het antwoord in.

...

Volgende pagina:

13. Respondent 150 zei: *Kopie bericht student*

Tijd

14. Anne is nu aan het typen

15. *Tijd gespendeerd op deze pagina.*

Volgende pagina:

16. Anne heeft het volgende bericht gestuurd:

Kun je mij daar iets over vertellen?

Tijd

17. Vul hieronder het antwoord in.

...

Volgende pagina:

18. Respondent 150 zei: *Kopie bericht student*

Tijd

19. Anne is nu aan het typen

20. *Tijd gespendeerd op deze pagina.*

Blok 5-11: Deel 2.1-2.7 manipulatie

Volgende pagina:

1. Anne heeft het volgende bericht gestuurd:
Feitelijk: Ok. Dus je bent voor het eerst hier op de campus.
Inschattingsfout: Ok. Dus je hebt gestolen uit verveling.
Geen: Ok. Fus je studeert hier aan de UT.
Tijd
2. Vul hieronder het antwoord in.
...

Volgende pagina:

3. Respondent 150 zei: *Kopie bericht student*
Tijd
4. Anne is nu aan het typen
5. *Tijd gependeed op deze pagina.*

Volgende pagina:

6. Anne heeft het volgende bericht gestuurd:
Tegenspreken: Ik heb het niet verkeerd.
Excuses: Ik heb het verkeerd, excuus.
Accepteren: Ik heb alles genoteerd.
7. Vul hieronder het antwoord in.
...

Blok 12: Deel 3 onderhandeling

Volgende pagina:

1. Respondent 150 zei: *Kopie bericht student*
Tijd
2. Anne is nu aan het typen
3. *Tijd gespenseerd op deze pagina.*

Volgende pagina:

4. Anne heeft het volgende bericht gestuurd:
Ben je alleen in die kamer?
Tijd
5. Vul hieronder het antwoord in.
...

Volgende pagina:

6. Respondent 150 zei: *Kopie bericht student*
Tijd
7. Anne is nu aan het typen
8. *Tijd gespenseerd op deze pagina.*

Volgende pagina:

9. Anne heeft het volgende bericht gestuurd:
Wat ben je precies van plan?
Tijd
10. Vul hieronder het antwoord in.
...

Volgende pagina:

11. Respondent 150 zei: *Kopie bericht student*
Tijd
12. Anne is nu aan het typen
13. *Tijd gespenseerd op deze pagina*

Volgende pagina:

14. Plaatje:



15. *Tijd gespendeerd op deze pagina*

16. Anne zoekt opnieuw contact...

- Weigeren
- Accepteren

17. *Tijd gespendeerd op deze pagina*

18. Bericht van de onderzoeker:

Bedankt voor het beantwoorden van de vragen. Jullie gaan nu automatisch verder met het invullen van de vragenlijst.

Tijd

19. *Tijd gespendeerd op deze pagina*

Blok 13: Vragen over gevoelens

1. De volgende vragen gaan over hoe jij je voelde tijdens het gesprek. Tijdens dit gesprek...
(PANAS-X-NA, Watson et al. 1994; NA = negative affect – hostility, Watson et al. 1994)

	Helemaal niet (1)	Niet (2)	Neutral (3)	Veel (4)	Erg veel (5)
(1) voelde ik me boos (NA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(2) was ik vijandelijk (NA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(3) was ik geïrriteerd (NA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(4) voelde ik me minachtig (NA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(5) voelde ik walging (NA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(6) voelde ik verafschuwing (NA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Volgende pagina:

2. De volgende uitspraken gaan over Anne. Geef aan in hoeverre jij het met de volgende uitspraken eens bent.
(Beune et al., 2011; IP = Information Provision, Colquitt et al., 2012; AT = Affective Trustworthiness, CT = Cognitive Trustworthiness)

	Helemaal mee oneens (1)	Beetje mee oneens (2)	Neutraal (3)	Beetje eens (4)	Helemaal mee eens (5)
(1) Aan Anne zou ik alles vertellen (IP1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(2) Aan Anne zou ik veel informatie geven (IP2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(3) Aan Anne zou ik geneigd zijn de waarheid te vertellen (IP3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(4) Anne en ik zouden beiden onze ideeën en gevoelens delen (AT1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(5) Ik zou vrij kunnen praten over mijn problemen met Anne (AT2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(6) Als ik mijn problemen met Anne zou delen, zou deze constructief en betrokken reageren (AT3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(7) Anne is betrokken bij de baan (CT1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(8) Ik zie geen reden waarom ik de competentie van Anne in twijfel moet trekken (CT2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(9) Als mensen meer van Anne zouden weten, zouden ze eerder geneigd zijn het functioneren in twijfel te trekken (CT3) (R)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(10) De meeste mensen respecteren Anne (CT4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(11) Mijn medestudenten zouden Anne als betrouwbaar beoordelen (CT5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Blok 15: Demografische kenmerken

1. Tot slot

Graag willen we je nog wat vragen over jezelf stellen.

Hoe oud ben je?

... jaar

2. Wat is je geslacht?

(1) Man

(2) Vrouw

3. Welke nationaliteit heb je?

(1) Nederlands

(2) Duits

(3) Ander, namelijk ...

4. Welke opleiding volg je?

...

5. Welk jaar van de opleiding zit je?

(1) Eerste bachelorjaar

(2) Tweede bachelorjaar

(3) Derde bachelorjaar

(4) Master

Blok 16: Check survey

- Ten slotte willen we je nog een aantal vragen stellen over de deelname aan deze studie. E verzoeken je om deze vragen zo eerlijk mogelijk te beantwoorden, omdat dit ons helpt de waarde van dit onderzoek beter in te schatten.

	Helemaal mee oneens (1)	Beetje mee oneens (2)	Neutral (3)	Beetje mee eens (4)	Helemaal mee eens (5)
(1) Ik kon me goed inleven in de diefstal en opsluiting die in dit onderzoek gepleegd werd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(2) Ik kan me voorstellen dat ik een vergelijkbare situatie op de Universiteit Twente zou meemaken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
(3) Ik denk niet dat de diefstal en opsluiting zou kunnen gebeuren in het echte leven	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Heb je het filmpje dat bij het scenario hoorde, bekeken?

- Ja
- Nee

- Hoe zorgvuldig het je de vragen gelezen?

Zeer onzorgvuldig

--	--	--	--	--	--	--	--	--	--	--	--	--

 Zeer zorgvuldig

- Hoeveel energie heb je in het inleven van het scenario gestopt?

Zeer weinig

--	--	--	--	--	--	--	--	--	--	--	--	--

 Zeer veel

- Werd je tijdens het invullen van deze vragenlijst afgeleid? Geef hieronder a.j.b. aan welke afleidingen van toepassing waren

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="radio"/> Geen afleiding <input type="radio"/> Het lezen van E-mail <input type="radio"/> Bezoek van een Sociale Media Website <input type="radio"/> Bezoek van een andere website <input type="radio"/> Telefoon gecheckt en/of beantwoord | <ul style="list-style-type: none"> <input type="radio"/> Televisie stond op het achtergrond aan <input type="radio"/> Muziek stond op de achtergrond aan <input type="radio"/> Gestoord door een ander persoon <input type="radio"/> Er was een andere afleiding die hier niet bijstaat <input type="radio"/> |
|---|--|

6. (Optioneel) We zouden het waarderen als je nog feedback hebt over deze studie. Als je een reactie wilt geven over het onderwerp van de studie, de studie zelf, of het scenario kun je dat hieronder doen.

...

Blok 17: Course credits

1. Credits (alleen SONA-participanten)

Hartelijk bedankt voor je deelname! Vergeet niet de onderstaande vraag nog even in te vullen om jouw credits te ontvangen.

2. Vul hieronder je SONA-registratienummer in. Anders kunnen we je geen punten geven voor het invullen van de vragenlijst! N.b. je proefpersoon nummer van SONA en dus niet je studentnummer.

...

Blok 18: Debriefing

1. Dank-Screen (alleen niet-SONA participanten)

Je bent nu aan het eind van het onderzoek. Bedankt voor het meewerken!

2. Debriefing

Je hebt alle vragen beantwoord. We willen benadrukken dat het ging om een fictief scenario, waarbij je dus niet echt in die kamer zat.

Vul hieronder je emailadres in zodat we je, zodra de dataverzameling is afgerond, een email kunnen sturen met extra informatie over het onderzoek. We zullen jouw emailadres alleen hiervoor gebruiken!

...

3. Aangezien de dataverzameling van dit onderzoek nog niet is afgerond willen we je vragen niet met andere studenten over dit onderzoek te praten.

4. Wanneer je op '>>' klikt worden alle antwoorden opgeslagen en is de vragenlijst afgerond.

Appendix 2 – Scenario 2

Je bent tweedejaars student aan de Universiteit Twente. Je bent opgegroeid in normale familieomstandigheden. Jouw familie was nooit rijk, maar jullie hadden altijd genoeg geld, om goed te kunnen leven. Derhalve konden jouw ouders tot nu toe altijd jouw collegegeld voor je betalen. Maar sinds drie maanden heeft zich de situatie in jouw familie verandert. Jouw vader is plotseling zijn baan kwijt geraakt en is nu werkloos. Hij probeert constant een nieuwe baan te verkrijgen, maar heeft de laatste tijd alleen maar afzeggingen verkregen. Om zijn verdriet te kunnen vergeten drinkt hij immer vaker alcohol. Aan sommige dagen is hij al 's middags dronken. Het is nu al enkele keren gebeurd dat je vader als hij dronken was handgemeen tegen je moeder is geworden. Tegen jou was hij nog niet handgemeen, maar je moeder heeft hij al sommige keren geslagen. Je moeder was al van tevoren eerder een triest persoon, maar met de werkloosheid van je vader is haar toestand nog erger geworden. Ze lijkt nu erg depressief te zijn en heeft al vaker aangegeven, dat ze het niet meer ziet zitten. Vanochtend heb je een wapen in de nachtkast van je moeder gevonden. Je herkent dat het een van de wapen van jouw vader is, die in een schutterij zit. Als je het wapen nu bij je moeder vind, vrees je dat ze zich iets wil aandoen. Om dat te vermijden, stop je het wapen in je tas.

Als je van thuis naar de universiteit voor je eerste college rijd, denk je over jouw verder problemen na: Het collegejaar heeft net begonnen en je moest het collegegeld betalen. Omdat de situatie in jouw familie momenteel zo erg is, ben je bang je ouders te vragen of ze het collegegeld voor jou kunnen betalen. Omdat je binnen de zomervakantie werken bent geweest, heb je net genoeg geld op je bankrekening zitten, om het collegegeld zelf te betalen. Helaas is jouw laptop laatste week kapot gegaan. Je bent met je laptop al bij de ICT-service van de UT geweest. De meneer van de ICT-service heeft je laptop geïnspecteerd en kwam tot de conclusie, dat je laptop niet meer kan worden gered en dat je een nieuwe laptop moet kopen. Bovendien moet je voor de actuele module ook nog boeken kopen. Omdat je al het collegegeld van je eigen rekening hebt betaald, heb je nu geen geld meer over om boeken of een nieuwe laptop te kopen. ... Je komt aan de UT aan, zet je fiets op slot en gaat naar de eerste college toe.

Als je na jouw college richting jouw fiets gaat zie je dat er een tent op het O&O plein staat. Een studievereniging heeft geld verzameld voor hun studiereis. De tent is leeg en als je dichterbij komt, zie je dat iemand vergeten is de kassa mee te nemen. Je moet aan je momentele moeilijke situatie denken en voordat je weet wat je wilt doen, grijp je de kassa en loop weg. Ineens hoor je achter je studenten roepen dat je de kassa gestolen hebt. Je raakt in paniek en rent weg. Je ziet dat de deur van het Cubicus open staat. Je loopt binnen en verschanst je in een kamer. Je herinnert het wapen in jouw tas en roept dat je een wapen hebt en dat je gaat schieten als iemand binnen komt. Binnen korte tijd zijn alle mensen naar buiten gevlucht en de politie is ingeschakeld.