

# Are you for real?!

An experimental study on the effects of emotional deception in online negotiations

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#### **Abstract**

This study aimed to examine the effects of displaying and revealing emotional deception in a negotiation, in order to achieve a better understanding of the consequences and what negative emotion may be more beneficial when it comes to strategy in negotiations. It examined the impact of anger and sadness in negotiations, as well as the effect of the validity (real or fake) of the displayed emotion. Negotiation outcome was measured through three concepts, namely the level of empathy, the relational outcome and the willingness to come to an agreement. These concepts were measured in two moments during the experiment, which were – depending on the condition – both before and after the revelation of deception. Results showed that the level of empathy was higher when people were facing a counterpart expressing sadness in the negotiation, rather than anger. People also rated the relational outcome of the negotiation higher when facing a counterpart expressing sadness, as compared to anger. Empathy levels were also higher for people who experienced real emotions rather than fake emotions, whereas people rated the relational outcome equal regardless of the validity of the emotion. Consequently, when looking at both the levels of empathy and the relational outcome, there were no differences between real and fake sadness, nor between real or fake anger. Additionally, people were not more likely to decline agreements when they were exposed to a counterpart who expressed anger than to one who expressed sadness. In conclusion, this study shows that it is more favorable to express sadness as opposed to anger, but only when the validity of the emotion is completely excluded. Theoretical as well as practical implications of the study are discussed.

*Keywords:* Emotions, sadness, anger, negotiation, emotional deception, deception revelation, level of empathy, relational outcome

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#### Introduction

Imagine you are belated to a major meeting. You may already be feeling embarrassed, or even stressed out, depending on the reason that caused you to be late. Upon arriving, you notice that your colleague is annoyed about your detainment. One the one hand, this may result in you feeling sorry for your behavior, his anger motivating you to be on time in the future. On the other hand, your colleague expressing anger may result in you feeling sad and upset, making you feel averted towards that colleague. But what if the colleague was not really angry? What if he only portrayed that anger with a premeditated effect, to generate a willingness to not arrive belated again? How would that make you feel once you discovered the anger was simulated?

In the recent years, people have become more aware of the crucial role emotions can play in their daily life. We all feel emotions, but as established by Reis and Collins (2004), not only do we feel emotions, we also express them. When emotions are expressed, other people can observe them (van Kleef, 2016), derive meaning from those emotions, and be influenced by them (Keltner & Ekman, 2000). For negotiations, the use of emotions is of major importance. Some researchers state that negotiations should not only be analyzed from a cognitive or economic perspective, as the emotional perspective may possibly affect negotiators' thoughts and actions even more (Thomas, 1990). Other studies have shown that negotiators use emotions to "initiate relationships, make demands, seek cooperation, and seal commitments" (Morris & Keltner, 2000).

Additionally, the deceptive use of emotions is another crucial part of negotiations. Elangovan and Shapiro (1998) established that negotiators are willing to recur to deception in order to receive better personal outcomes. The use of deception increases when negotiators perceive their counterpart as less trustworthy, or when they are concerned about the other party's motivations (Olekalns & Smith, 2009). In addition, most negotiators do not have the

expertise to detect a lying counterpart (Bond & DePaulo, 2006), resulting in negotiators being tempted to use deception (Schweitzer & Croson, 1999).

Previous research done by Adler, Rosen and Silverstein (1998) has provided evidence that people are inclined to strategically adapt certain displayed characteristics of themselves in social interactions. Emotions may very well be one of those displayed characteristics, as the expression of extreme emotions can cause extreme, sometimes even unreasonable behavior (Adler, Rosen & Silverstein, 1998). People are convinced that their emotional expression will have an effect on others' decisions. This can lead them to stimulate their emotions in an attempt to improve their negotiation outcomes (Andrade & Ho, 2009). However, research on the consequences of the use of deception is limited, mainly because deception oftentimes goes undetected (Gasper & Schweitzer, 2013).

Therefore, this study will examine the different effects of genuine and deceptive emotions in negotiations, resulting in the following research question: What are the effects of displaying fake emotions in an online negotiation?

In the following chapter, relevant findings in relation to general emotional expressions in negotiations will be discussed. These findings will serve as a starting point for the present study. Additionally, a more in-depth overview of the emotions that will be used in the current study will be provided, explaining both their advantages and their disadvantages. Lastly, these emotions will also be described in terms of their deceptive use, with their corresponding benefits and downsides.

## **Theoretical Framework**

#### **Use of emotions**

There are different effects emotions can have on other individuals, which can be considered through two different views. Firstly, there are *intrapersonal effects*, referring to the effects an individual's emotions can have on his or her own behavior. Secondly, *interpersonal effects* refer to the effects an individual's emotions can have on other people's behavior (Van Kleef, De Dreu & Manstead, 2004a). The present study focuses on the latter, and focus will therefore lie on the relationship between emotions and interpersonal effects they may have.

Several mechanisms through which emotions can function have been identified through earlier research that focused on emotional expressions. Firstly, the expression of emotions provides crucial information that can help others get to know the other party (Morris & Keltner, 2000). Emotional expression can provide information about someone's current emotions (Ekman, 1993), someone's objective in general (Fridlund, 1992), and someone's objective towards the relationship between both parties (Knutson, 1996). Therefore, emotional expression contribute to both parties knowing each other's feelings and beliefs (Morris & Keltner, 2000).

Secondly, emotional expressions can evoke similar emotions in the addressee. When being exposed to emotional expressions, people tend to respond in a similar matter. This occurs despite the fact that they may have been only exposed to those emotions for a short amount of time, and even when people cannot recall exactly what they have experienced (Dimberg & Ohman, 1996). Lastly, emotional expressions can serve as motivation to stimulate specific behavior that is desired from another individual. In the example, the colleague may have expressed anger to stimulate the other person to be on time in the future. Therefore, anger or other negative expressions may help to discipline unwanted behavior, whereas positive expressions may help to reward desirable behavior (Morris & Keltner, 2000).

The use of emotions has been mostly studied in more personal and relational settings. People in relationships are mostly obliged to take each other's wishes, concerns, abilities and emotional expressions into account, resulting in both parties reacting to each other's behaviors and altering their own (Reis & Collins, 2004). Despite emotions being a focal point when it comes to personality, especially when the growth of a person's development results in a conflict (Keltner & Ekman, 2000), the effects of emotions in other domains, such as conflicts and negotiations, have only recently started receiving more attention.

## **Emotions in negotiations**

Previous research has established emotions as an important factor in negotiations when it comes to strategy (van Kleef, de Dreu & Manstead, 2004b). Emotions can determine the direction the negotiation is heading (Morris & Keltner, 2000), as well as help to create or change the tone during a negotiation (Hine, Murphy, Weber, & Kersten, 2009). In addition, negotiators use emotions to "initiate relationships, make demands, seek cooperation, and seal commitments" (Morris & Keltner, 2000).

Studies that involve emotions often used the basic distinction between positive – particularly, happy – and negative – particularly, angry – emotions, often with the display of neutral emotion as a control condition (Kopelman, Rosette & Thompson, 2006; van Kleef, de Dreu & Manstead, 2004a; van Kleef, de Dreu & Manstead, 2004b). The present study aims to steer away from this distinction, by looking at the differences between anger and sadness, with the expression of neutral emotion as a control group. While anger and sadness are both considered as negative emotions, their expression may lead to different results, as negative emotions can create impressions of the counterpart that are neither entirely negative nor positive (Tiedens, 2001). More specifically, people expressing sadness cause the perception that they are in need of help, submissive or even incompetent, but also create the feeling of being likable and warm. However, people expressing anger are perceived as dominant, smart

and competent, but are also considered unfriendly and bitter (Tiedens, 2001). Additionally, people expressing anger create a feeling of individual justice with the receiver, whereas with sadness, it often creates sympathy and concern, or even weakness (Rozin, Lowery, Imada, & Haidt, 1999). Therefore, studying these two emotions combined in one study may provide new insights into what impact negative emotions may have on social behavior (Dehgani, Carnevale & Gratch, 2014). To further state the differences between the use of anger and sadness in negotiations, the following sections will provide further details on the current literature on both anger and sadness in negotiations.

#### **Anger in negotiations**

Of all interpersonal emotions in negotiations, anger has received the most attention (e.g. van Dijk, van Kleef, Steinel & van Beests, 2008; Barry & Oliver, 1996; Dehgani, Carnevale & Gratch, 2014). Intense emotions often trigger intense and, at times, irrational behavior, and anger is considered to be one of those emotions (Adler, Rosen & Silverstein, 1998). In negotiations, there are several things that can trigger angry behavior. Daly (1991) found that, in negotiations, people result to anger when a counterpart makes an excessive demand, or when he/she emphasized unimportant information. Barry and Oliver (1996) found that anger arises when negotiators are dealing with time pressure or when the negotiation is perceived as a win-lose situation with both parties having varying goals.

There are different benefits, as well as downsides when negotiators express anger. People who express anger are seen as dominant, which in turn evokes fear from their counterpart, leading to a higher willingness to cooperate, and larger concessions to a negotiators' advantage (Côté, Hideg & van Kleef, 2013). Another study found that participants made larger concessions to counterparts who expressed anger, as they believed the opponent had more aspiring objectives (Van Kleef, de Dreu & Manstead, 2004b). However, expressing anger may also come with consequences, as Dehgani, Carnevale and

Gratch (2014) found that anger resulted in lower concessions. Van Dijk, van Kleef, Steinel and van Beest (2008) suggest that if the negotiation allows for the exchange of information, negotiators may result to deception when they are presented with an angry counterpart.

### Sadness in negotiations

While anger is an emotion that is increasingly becoming a focal point in research on emotions, not many studies focused on the effect of sadness in negotiations. This is unfortunate, as sadness is another emotion that naturally arises in conflicts (Dehgani, Carnevale & Gratch, 2014), for instance when negotiators face a loss or when high personal stakes are involved that cannot be reached (Sinaceur, Kopelman, Vasiljevic & Haag, 2015). Negotiators expressing sadness may affect their counterpart's feelings, by evoking feelings of empathy and compassion, which may result in concessions from their opponent (Horstmann, 2003). Dehgani, Carnevale and Gratch (2014) found support for this idea, as results showed that expressions of sadness increased concessions as well as result in higher concessions in comparison to expressions of anger. Sinaceur, Kopelman, Vasiljevic and Haag (2015) found that expressions of sadness signals appraisals of helplessness, whereas expressions of anger signals aggression. Results from this study also showed that participants made more concessions to sad counterparts when they had to pursue an additional negotiation in the future with them, in comparison to when the negotiation was a one-time event. However, sadness may also signal weakness, causing the other party in the negotiation to strengthen their position (Dehgani, Carnevale & Gratch, 2014). Additionally, when the sad counterpart is perceived as having more power, negotiators feel less empathy and do not feel the need to their counterpart (Sinaceur, Kopelman, Vasiljevic & Haag, 2015).

## **Emotional deception in negotiations**

Several studies have examined the effects of emotional deception in negotiations.

Emotional deception, or gaming emotions, can be defined as strategically modifying the

expression of a current emotional state, intended to mislead a counterpart (Andrade & Ho, 2009). People may deliberately choose to game emotions if they believe the deception will result in higher personal outcomes (van Dijk, van Kleef, Steinel & van Beests, 2008), even more so when the advantages outweigh the consequences (Andrade & Ho, 2009). Another explanation why people use emotional deception is that they want to avoid being taken advantage off, which is why they decide using emotional deception themselves (Andrade & Ho, 2009). Nonetheless, the study by Gasper and Schweitzer (2013) stresses the need for more research on the use of deception in negotiations, more specifically emotional deception.

However, in terms of the revelation of emotional deception during a negotiation, only little is known. Research done by Côté, Hideg and van Kleef (2013) found that people were unhappy with their counterpart when they found out the anger the counterpart expressed was fake, which resulted in low levels of trust. Additionally, Kopelman, Rosette and Thompson (2006) found that counterparts who negotiated with an angry counterpart became angry themselves, resulting in less interest in future negotiations with the same counterpart. This effect is caused by emotional contagion, which entails that an individual's emotional display impacts the recipient in such a way that they portray the same emotional reaction (Campagna, Mislin, Kong & Bottom, 2016).

In terms of faking sadness, no prior research on this topic was found. However,

Andrade and Ho (2009) suggest that when it comes to faking emotions, people might want to
consider faking sadness instead of anger. Reason being that sadness induces sympathy (Rozin,
Lowery, Imada & Haidt, 1999), and it is therefore expected that the outcomes for faking
sadness will be less damaging than for faking anger.

## **Hypotheses**

Concluding from the literature mentioned above, it can be assumed that the expression of different emotions can result in different outcomes of negotiations. As discussed, the current

literature does not compare the effects of anger and sadness directly against each other. When comparing the two emotions, the assumption can be made that the expression of sadness may result in better outcomes than the expression of anger. As mentioned in previous sections, sadness would be more favorable than anger because it induces empathy (Rozin, Lowery, Imada & Haidt, 1999). Research also showed that expressions of sadness is favorable when future negotiations were expected (Dehgani, Carnevale & Gratch, 2014), whereas expressions of anger lowered the chances of having future negotiations (Côté, Hideg & van Kleef, 2013). Differences between emotions in this study will therefore be investigated on those two outcomes.

Based on the results from previously conducted studies, it may be assumed that expressing fake anger may result in worse outcomes than expressing real anger. Another expectation is that fake sadness may also result in worse outcomes when compared to real sadness. As a result, the following hypotheses were established:

**H1a**: People who experience *sad* emotions will perceive the relational outcome of the negotiation higher than people who experience *angry* emotions.

**H1b**: People who experience *real* emotions will perceive the relational outcome of the negotiation higher than people who experience *fake* emotions.

**H1c:** People who experience *fake sad* emotions will perceive the relational outcome of the negotiation lower than people who experience *real sad* emotions.

**H1d**: People who experience *fake angry* emotions will perceive the relational outcome of the negotiation lower than people who experience *real angry* emotions.

**H2a**: People who experience *sad* emotions will feel <u>more empathy</u> towards their counterpart than people who experience *angry* emotions.

**H2b**: People who experience *real* emotions will feel <u>more empathy</u> towards their counterpart than people who experience *fake* emotions.

**H2c:** People who experience *fake sad* emotions will feel <u>less empathy</u> towards their counterpart than people who experience *real sad* emotions.

**H2d**: People who experience *fake angry* emotions will feel <u>less empathy</u> towards their counterpart than people who experience *real angry* emotions.

**H3:** People are more likely to decline agreements when exposed to a counterpart who expresses *angry* emotions than counterparts who express *sad* emotions.

#### Method

During this experiment, participants negotiated in a fictional online negotiation. Participants took the role of seller in a buyer-seller negotiation, whereas the (fictional) counterpart was the potential buyer. Messages that were sent by the (fictional) counterpart were prefabricated, and portrayed a sad, angry, or neutral tone of voice. At the end of the negotiation, the relational outcome and other-concern were measured.

For the data collection, an experiment was created. This experiment contained both this studies' conditions and measurements, as well as those of another co-applicant of the main researcher<sup>1</sup>. After data collection was completed, the data was adjusted to fit this design, and to perform the analyses.

## **Participants**

In total, 293 participants took part in this study, 140 male and 153 female, with an average age of 26.10 years (SD = 8.56). In total, participants with 46 different nationalities took part in this study. The majority of participants had a Dutch nationality (51.2%), followed by German (8.2%) and British (3.4%). The survey was spread using the Human Subject Pool provided by Tilburg University, as well as through personal channels of both the co-applicants.

#### **Design**

The experiment consists of a 3 x 2 between-subjects design. The independent variables are the displayed emotion (anger vs. sadness vs. neutral) and the validity of the emotion (real vs. fake). The control condition, neutral, had no condition where deception is integrated. The dependent variables were the level of empathy (other-concern) and the relational outcome. Each experimental condition consisted of over 50 participants.

<sup>&</sup>lt;sup>1</sup> Research was performed in collaboration with Eline Niessen. Data collection was carried out jointly, after which the datafile was shared and adapted to fit the required conditions and measurements of the current study.

#### **Materials**

In all conditions, participants were introduced to a buyer-seller negotiation, taking place online. Participants would always be assigned the role of seller, and were instructed that they were selling their used iPhone 8 on an online selling forum called Marktplaats. Initially, the iPhone of subject in the study was an iPhone 7, which was chosen due to the fact that they are still quite recently released smartphones. However, after the pretest it appeared that people had lost interest in purchasing secondhand iPhone 7's, which was concluded based on the low price they would be willing to pay (€323,33). Therefore, an iPhone 8 was chosen for the main study. Participants were presented with an advertisement, containing all the information about the smartphone they were selling. The advertisement was retrieved from Marktplaats, and was slightly altered to fit the specifications of the study, such as the price of the iPhone.

In addition to the advertisement, instructions were written. The instructions contained an indicative price for which the participant was advised to sell their iPhone for. They were instructed that although it was up to them to determine the eventual selling price, the price that was set, which was  $\in$ 400,-, was a good indicative price. The lowest price participants could offer was set to  $\in$ 200,- ,which was set so that participants would not ask unrealistic asking prices such as  $\in$ 1,-. The highest price participants could ask for was  $\in$ 400, which was established after researching the average price secondhand iPhone 8's sell for on Marktplaats. The full advertisement and scenario can be found in Appendix C.

In every round of the negotiation, participants received a message from their counterpart. The first message participants received from their counterpart was equal across all conditions. Message two, three, and four displayed the emotion corresponding to the condition the participant was assigned to. The counterpart – who was a fictitious buyer – ,in the "anger" conditions, displayed expressions of anger, whereas in the "sad" conditions, the counterpart displayed signals of sadness. Research performed by van Kleef, van Doorn,

Heerdink and Koning (2011) indicated that for negative emotions, stronger reactions arise when the emotion is aimed at the counterpart personally. Therefore, all emotions displayed by the counterpart in the messages were directed towards the participant.

The messages were self-written, after which emoticons were added to enhance the emotion portrayed in the message. All messages were pretested and were adjusted based on those results. All factors contributing to the messages, such as the direction of the emotions, the number of words per message and the number of emoticons, were kept equal across all conditions. This was done to ensure that the messages would not end up confounding the results. An overview of the materials as used in the pretest as well as their adjusted versions for the main study can be found in Appendix A.

#### **Pretest**

Prior to the main study, a pre-test was conducted to measure if the messages portrayed by the (fictional) counterpart were perceived as the corresponding emotion. For this test, a short questionnaire was developed focusing on a negotiation between a buyer (man) and a seller (woman). First, an advertisement was shown, of which participants were first asked to indicate to what extent they believed this advertisement to be real. Secondly, they were asked if they believed the asking price for the phone that is being advertised was reasonable. Both questions were assessed on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Participants were then asked to indicate which price they would be willing to pay for the advertised iPhone. Lastly, participants were asked if they would consider this advertisement, if they were in the market for an iPhone 7.

Next, participants were instructed that they would receive three different conversations, about which they had to react on corresponding statements. Items were equal across all three conversations. The first statement read as follows: "During the conversation,

the buyer (Peter) appeared to be [angry/sad/not showing any emotions/happy/disappointed].", and was measured using a scale adapted from the study by van Kleef and de Dreu (2010). The items were measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The second statements read as follows: "During the conversation, the emotions of the buyer (Peter) were directed towards...", with answer options being Anne personally, or the offers Anne made. The third question read: "How did Peter express his emotions?". Participants had to indicate to what extent they thought it was through his choice of words, his use of emoticons, or a combination of both. They could do so by selecting their preferred answer option on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The final question was related to the conversation as a whole, where participants were requested to indicate whether they believed this chat-conversation could actually happen in real life (yes or no).

In the final block of the pretest, participants were asked if they recognized the emotions used in the conversation. If participants indicated that they did not recognize the emotions, they were asked to state which conversation they had difficulties with. In addition, participants were asked to give their opinion of whether the buyer (Peter) could have expressed his emotions in any other way. Finally, participants could leave comments or concerns they might have had after reading all three conversations, as well as leave their contact information for the researchers to obtain additional feedback on the entire pretest. Participants who participated in the pre-test were excluded from the main study.

conversation was perceived as sad (M = 4.47, SD = .74), the angry conversation as angry (M = 4.47, SD = 1.06), and the neutral conversation as neutral (M = 4.00, SD = 1.13). Participants indicated that in both the angry (M = 4.73, SD = .59) and the sad conversation (M = 4.87, SD = .35), the buyer expressed his emotions mostly through both his choice of words and his use of emoticons. However, in the neutral conversation, the buyer expressed his emotions through his use of words (M = 3.80, SD = 1.32), which can be explained through the lack of emoticons in that conversation.

When looking at the direction of the emotions displayed by the buyer, 80% of all participants indicated that the sad buyer expressed his emotions towards the offers the seller made, where 93.3% indicated the same for the neutral buyer. For the angry buyer, however, 60% indicated that the buyer was expressing his emotions towards the seller personally, which was contradictory in comparison to the sad and neutral emotions. In terms of credibility, participants indicated that both the sad conversation (66.7%), as the angry (80%) and the neutral conversation (93.3%) were realistic. Based on the results displayed above and the additional feedback that was received, adjustments were made to the messages displayed by the (fictional) counterpart.

#### **Measures**

Three different measurements were part of the current study. Firstly, the relational outcome of the negotiation was measured using five items adapted from the study performed by Kleef et al. (2004) as used by Coté, Hideg and van Kleef (2013). The five items are:

- 1. "I am satisfied with the course of the negotiation."
- 2. "I would like to do business with the same buyer in the future."
- 3. "I have a good feeling about the negotiation."
- 4. "I would like to avoid future negotiations with the same buyer."
- 5. "I am pleased with this negotiation."

The items were measured on a 7-point Likert scale, with response categories ranging from 1 (strongly disagree) to 7 (strongly agree). These items proved to have a good reliability ( $\alpha = .876$ ).

Participants' perceived level of empathy (other-concern) was measured using four items adapted from the study performed by Sinaceur, Kopelman, Vasiljevic and Haag (2015). The four items are:

- 1. "How much did you think that your counterpart was deserving compassion?"
- 2. "How much empathy did you feel for your counterpart?"
- 3. "How much did you think that your counterpart needed your help?"
- 4. "Did you feel socially responsible to help your counterpart?"

The items were measured on a 7-point scale, with response categories ranging from 1 (very little) to 7 (very much). These items proved to have a good reliability ( $\alpha = .859$ ).

In addition, participants' opinion on the use of emotions in negotiations was measured. These items were only included in the conditions corresponding to sadness and anger. For this measure, participants were asked to answer three items adapted from the study performed by Sinaceur, Kopelman, Vasiljevic and Haag (2015). The three items are:

- 1. "I can imagine a negotiation setting where it is appropriate to express [anger/sadness]"
- 2. "To elicit concessions from an opponent, one might consider expressing [anger/sadness]"
- 3. "In a negotiation, I could strategically express [anger/sadness]."

These items were presented to the participant in the second questionnaire (posttest) in the experiment. The items were measured on a 7-point scale, with response categories ranging from 1 (strongly disagree) to 7 (strongly agree). The items for both sadness ( $\alpha = .764$ ) and anger ( $\alpha = .845$ ) were reliable.

The agreement on the final offer will be measured by looking at the decision participants made after they received the fourth offer of their counterpart. Participants were asked if they agreed to the final offer of  $\in$ 300, which they could accept or decline. Responses were measured on a nominal scale, and could contain either yes (1) or no (2).

#### **Procedure**

The experiment took place between April 2019 and May 2019. Participants were invited through a Qualtrics link, which led participants to the experimental setting. Participants were presented with a short introduction and briefing about the experiment, after which they were asked to give their consent. Participants were informed that participation was completely voluntarily, and they could opt out of the experiment at any time, without consequences. Data was collected confidentially and will be used for scientific purposes only. The informed consent form can be found in Appendix B. Consent was given by clicking either "Yes, I agree." Or "No, I do not agree.". For participants who clicked "No, I do not agree.", the experiment ended immediately, and they were redirected to an alternative ending page. After the informed consent, participants received a short questionnaire. Because the negotiation setting requires same-gender dyads, a question to establish the participant's gender was included to determine the condition the participant was assigned to. In addition, questions about the participants' age and nationality were asked in this block.

After this questionnaire, participants were directed to an instruction page. This page contained an explanation of the scenario, as well as the advertisement that was posted by the participant. Participants were made aware of their initial asking price, and were instructed that although the price was negotiable, the price they initially set was a good indicative price. The full instruction page and advertisement can be found in Appendix C. After participants indicated that they had read the full instruction, the negotiation started.

There were four rounds in which offers and counteroffers could be made. Participants were first presented with a message they received from their (fictional) counterpart, after which they indicated their counteroffer. Participants also had the option to respond to their counterpart, using the provided text block in which they could write a message. In round two, three and four, participants were also presented with the history of the counteroffers they had made to their counterpart.

After having made two counteroffers, participants were requested to fill out a short questionnaire. In this questionnaire, the items related to the relational outcome and other-concern were included. These results served as a pre-test, and were compared to the results from the same questions that will be asked at the end of the negotiation. After this questionnaire, participants were informed that the negotiation would continue. Participants could make one more counteroffer before receiving the option to agree to their counterparts offer in the final round. If they agreed, they received a message from their counterpart which stated that they had reached an agreement, and that he/she would come to pick up the phone as soon as possible. If they did not wish to agree, they could make one more counteroffer, after which they received a message from their counterpart that they did not reach an agreement. A full overview of the complete negotiation can be found in Appendix D.

Depending on the condition, participants were then made aware of the emotional deception. Participants in a deception condition received a message that they had been emotionally deceived by their counterpart, who used these fake emotions to generate a better outcome for him-/herself. Then they were asked to indicate whether they had come to an agreement or not. When indicated that there was no agreement, participants were asked if they would like to change their final offer, given the fact that they now knew that they had been emotionally deceived, and what that offer would be. If both parties had reached an agreement, participants were asked if they, if possible, would like to alter their final offer. If participants

answered this question with "Yes", they received another text box in which they could indicate their offer. After these questions, participants received the posttest questionnaire. Participants who were in the no-deception condition received the posttest questionnaire immediately after the agreement/no agreement message from their counterpart. This questionnaire addressed the same measurements as in the pretest questionnaire, with additional items measuring their opinion on emotions in negotiations in general.

Incomplete disclosure (deception) was part of the study. Participants were – depending on the conditions they are assigned to - made aware of this on purpose during the experiment, after which the experiment continued. All participants were debriefed after completing the experiment, in which it was stated that they had been exposed to deception by the other party in the negotiation, and that this was indeed part of the experiment. The full debriefing can be viewed in Appendix E. At the end of the debriefing, participants were instructed to click the "next" button, after which they were told that this was the end of the experiment, and they were thanked for their time and contribution.

#### Results

## **Manipulation check**

To test if the manipulation of the messages was successful, a one-way ANOVA was conducted. (N = 293). The types of emotions (anger vs. sadness vs. neutral) were used as independent variables. The dependent variable that was used portrayed the mean score of participants on three items that read as follows: "During the conversation, the buyer (Peter/Anne) appeared to be [angry/sad/not showing any emotions].", The descriptives of the manipulation check for the different messages in each condition are displayed in Table 1.

Table 1

Manipulation check messages

		Anger-conditions		Sadness-c	conditions	Neutral-condition		
		M	SD	M	SD	M	SD	
Messages	Angry	6.10	1.08	3.56	1.78	3.69	1.36	
perceived	<u>Sad</u>	3.47	1.74	5.85	1.23	3.56	1.36	
as	<u>Neutral</u>	1.85	1.21	1.92	1.41	4.00	1.66	

Note: Significant manipulations are bolded.

The ANOVA showed significant effects for the angry messages (F(2, 146.78) = 124.54, p < .001), the sad messages (F(2, 163.25) = 98.10, p < .001), as well as the neutral messages (F(2, 146.39) = 43.51, p < .001). The contrast analyses showed that the messages in the angry condition were perceived as angry, more so than neutral or sad (t(274.84) = 15.81, p < .001). The messages in the sad condition were perceived as sad more so than angry or neutral (t(242.76) = 13.96, p < .001). The messages in the neutral condition were perceived as neutral, more so than angry or sad (t(83.02) = 9.26, p < .001). These results indicate that messages were interpreted in a way that corresponded to the condition, and it can thus be concluded that the manipulation checks were successful.

## **Opinion on expressing emotions**

In all conditions (with the exception of the neutral condition), after completing the negotiation, participants were asked to indicate their opinion on expressing emotions in negotiations. The results can be found in Table 2. A higher score means that participants could imagine expressing that emotion in a negotiation.

Table 2

Participants' opinion on expressing emotions in negotiations

	Real er	notions		Fake emotions			
<u>An</u>	<u>ger</u>	Sadı	<u>ness</u>	<u>An</u>	<u>ger</u>	Sad	<u>ness</u>
M	SD	M	SD	М	SD	М	SD
3.55	1.61	3.60	1.31	3.55	1.49	3.37	1.48

To test if people perceive different emotions as more appropriate to display in a negotiation, two independent t-tests were performed. In the sadness conditions, participants were asked to indicate their opinion on the appropriateness to use sadness in a negotiation (N = 105), whereas in the anger-conditions, the appropriateness to use anger was measured (N = 126). The different validity conditions (real vs. fake) were used as independent variables. The dependent variable consisted of the mean score of participants' opinion on the appropriateness to use anger of sadness in negotiations.

Results showed that participants who experienced real sadness did not see sadness as more appropriate to display in a negotiation than fake sadness, t(103) = .851, p = .397. In addition, participants who experienced real anger did not see anger as more appropriate to display in a negotiation than participants who experienced fake anger t(124) = -.013, p = .989. These results indicate that participants see it as somewhat appropriate to portray either anger (M = 3.55) or sadness (M = 3.49) in a negotiation, regardless of the validity of that emotion.

#### Relational outcome and other-concern

For the relational outcome and other-concern of each condition, means and standard deviations were derived from the datafile, as measured in both the pretest and the posttest of the experiment, as well as the overall mean and standard deviation. These descriptives can be seen in Table 3.

Table 3

Means and standard deviations of the other-concern and relational outcome scales for all conditions

	Real emotions			Fake emotions						
	Anger		Sadness		<u>Anger</u>		<u>Sadness</u>		<u>Neutral</u>	
	M	SD	M	SD	M	SD	M	SD	M	SD
Pretest	2.57	1.11	3.10	1.29	2.52	1.09	2.66	1.03	2.97	1.14
Posttest	2.48	.98	3.09	1.40	2.20	.99	2.43	1.15	2.75	1.12
Overall	2.52	.98	3.09	1.17	2.36	.97	2.55	.99	2.86	1.04
Pretest	2.87	1.05	3.52	.87	3.22	1.11	3.39	1.09	3.57	1.19
Posttest	2.84	1.14	3.13	1.19	2.83	1.15	2.98	1.01	3.62	1.23
Overall	2.85	.99	3.33	.91	3.03	1.01	3.18	.95	3.60	1.11
	Posttest Overall Pretest Posttest	Pretest 2.57 Posttest 2.48 Overall 2.52 Pretest 2.87 Posttest 2.84	$\begin{array}{c cccc} & \underline{Anger} \\ M & SD \\ \hline \\ Pretest & 2.57 & 1.11 \\ Posttest & 2.48 & .98 \\ \hline \\ Overall & 2.52 & .98 \\ \hline \\ Pretest & 2.87 & 1.05 \\ \hline \\ Posttest & 2.84 & 1.14 \\ \hline \end{array}$	Anger     Sade       M     SD     M       Pretest     2.57     1.11     3.10       Posttest     2.48     .98     3.09       Overall     2.52     .98     3.09       Pretest     2.87     1.05     3.52       Posttest     2.84     1.14     3.13	Anger       Sadness $M$ $SD$ $M$ $SD$ Pretest       2.57       1.11       3.10       1.29         Posttest       2.48       .98       3.09       1.40         Overall       2.52       .98       3.09       1.17         Pretest       2.87       1.05       3.52       .87         Posttest       2.84       1.14       3.13       1.19	Anger         Sadness         Anger           M         SD         M         SD         M           Pretest         2.57         1.11         3.10         1.29         2.52           Posttest         2.48         .98         3.09         1.40         2.20           Overall         2.52         .98         3.09         1.17         2.36           Pretest         2.87         1.05         3.52         .87         3.22           Posttest         2.84         1.14         3.13         1.19         2.83	Anger         Sadness         Anger $M$ $SD$ $M$ $SD$ $M$ $SD$ Pretest $2.57$ $1.11$ $3.10$ $1.29$ $2.52$ $1.09$ Posttest $2.48$ $.98$ $3.09$ $1.40$ $2.20$ $.99$ Overall $2.52$ $.98$ $3.09$ $1.17$ $2.36$ $.97$ Pretest $2.87$ $1.05$ $3.52$ $.87$ $3.22$ $1.11$ Posttest $2.84$ $1.14$ $3.13$ $1.19$ $2.83$ $1.15$	Anger         Sadness         Anger         Sadress           M         SD         M         SD         M         SD         M           Pretest         2.57         1.11         3.10         1.29         2.52         1.09         2.66           Posttest         2.48         .98         3.09         1.40         2.20         .99         2.43           Overall         2.52         .98         3.09         1.17         2.36         .97         2.55           Pretest         2.87         1.05         3.52         .87         3.22         1.11         3.39           Posttest         2.84         1.14         3.13         1.19         2.83         1.15         2.98	Anger         Sadness         Anger         Sadness $M$ $SD$ $M$ $SD$ $M$ $SD$ $M$ $SD$ Pretest $2.57$ $1.11$ $3.10$ $1.29$ $2.52$ $1.09$ $2.66$ $1.03$ Posttest $2.48$ $.98$ $3.09$ $1.40$ $2.20$ $.99$ $2.43$ $1.15$ Overall $2.52$ $.98$ $3.09$ $1.17$ $2.36$ $.97$ $2.55$ $.99$ Pretest $2.87$ $1.05$ $3.52$ $.87$ $3.22$ $1.11$ $3.39$ $1.09$ Posttest $2.84$ $1.14$ $3.13$ $1.19$ $2.83$ $1.15$ $2.98$ $1.01$	Anger         Sadness         Anger         Sadness         Neumann           M         SD         M         SD         M         SD         M         SD         M           Pretest         2.57         1.11         3.10         1.29         2.52         1.09         2.66         1.03         2.97           Posttest         2.48         .98         3.09         1.40         2.20         .99         2.43         1.15         2.75           Overall         2.52         .98         3.09         1.17         2.36         .97         2.55         .99         2.86           Pretest         2.87         1.05         3.52         .87         3.22         1.11         3.39         1.09         3.57           Posttest         2.84         1.14         3.13         1.19         2.83         1.15         2.98         1.01         3.62

#### **Relational outcome**

To test hypotheses 1a through 1d, a two-way mixed ANOVA was performed with the relational outcome measured in the pretest and posttest as the within-subjects factor, and the type of emotion (anger vs. sadness) and the validity of the emotion (fake vs. real) as the between-subjects factors.

There was a significant main effect of the relational outcome in the process of the negotiation, F(1, 227) = 22.36, p < .001. Participants had a lower level of relational outcome after having completed the negotiation (M = 2.93, SD = 1.13) than after two rounds of negotiating (M = 3.23, SD = 1.06). There was a significant main effect of the type of emotion, F(1, 227) = 6.16, p = .014. Participants in the anger conditions had an overall lower level of relational outcome (M = 2.94, SD = 1.00) than participants in the sadness conditions (M = 3.26, SD = .93). Surprisingly, there was no main effect of the validity of the emotion, F(1, 227) = .015, p = .902.

There were no interaction effects between the type of emotion and the relational outcome (F(1, 227) = 2.26, p = .134), between the validity of the emotion and the relational outcome (F(1, 227) = 2.07, p = .152), nor between the type of emotion and the validity of the emotion (F(1, 227) = 1.52, p = .219). Lastly, there was no interaction effect of the type and validity of the emotion on the relational outcome (F(1, 227) = 1.67, p = .198).

In order to examine the effects of the type and the validity of the emotion in comparison to the neutral emotion on the relational outcome of a negotiation, a one-way ANOVA was performed. This action was taken due to the fact that the neutral-condition did not consist of both a real and fake condition, and could therefore not be included in the previous analysis. The overall perceived relational outcome served as the dependent variable, and the five conditions (real anger, fake anger, real sadness, fake sadness, neutral) as the independent variables.

The ANOVA revealed a significant effect for the overall relational outcome between groups, F(4, 292) = 5.02, p = .001. Contrast analyses showed that there was a significant difference between the neutral condition and the remaining conditions (p = .001). A post hoc analysis showed that people in the real anger condition indicated an overall lower relational outcome of the negotiation (M = 2.85, SD = .99) than people in the neutral condition (M = 3.60, SD = 1.11) (p < .001). Additionally, people in the fake anger condition also indicated an overall lower relational outcome of the negotiation (M = 3.03, SD = 1.01) than people in the neutral condition (M = 3.60, SD = 1.11) (p = .015). No significant effects were found for the remaining comparisons.

## **Level of empathy (other-concern)**

To test hypotheses 2a through 2d, a two-way mixed ANOVA was performed with the other-concern measured in the pretest and posttest as the within-subjects factor, and the type of

emotion (anger vs. sadness) and the validity of the emotion (fake vs. real) as the betweensubjects factors.

There was a significant main effect of the process of the negotiation on other-concern, F(1, 227) = 6.76, p = .010. Participants' level of other-concern was lower after having completed the negotiation (M = 2.53, SD = 1.17) than after two rounds of negotiating (M = 2.70, SD = 1.14). There was a significant main effect of type of emotion, F(1, 227) = 7.81, p = .006. Participants in the anger conditions had an overall lower level of other-concern (M = 2.44, SD = .97) than participants in the sadness conditions (M = 2.82, SD = 1.11). Additionally, there was a significant main effect of validity of the emotion, F(1, 227) = 6.87, P = .009. Participants who experienced real emotions had an overall higher level of other-concern (M = 2.79, SD = 1.10) than participants who experienced fake emotions (M = 2.44, SD = .98).

There were no interaction effects of the type of the emotion on other-concern (F(1, 227) = .43, p = .515), the validity of the emotion on other-concern (F(1, 227) = 3.20, p = .075), nor between the type of emotion and the validity of the emotion (F(1, 227) = 2.05, p = .153). Additionally, there was no significant interaction effect of the type and validity of the emotion on other-concern (F(1, 227) = .000, p = .992).

To further explore the effects of the type and the validity of the emotion on the level of other-concern in a negotiation, a one-way ANOVA was performed. This action was taken due to the fact that the neutral-condition did not consist of both a real and fake condition, and could therefore not be included in the previous analysis. The overall level of other-concern served as the dependent variable, and the five conditions (real anger, fake anger, real sadness, fake sadness, neutral) as the independent variables.

The ANOVA revealed a significant effect for the overall level of empathy between groups, F(4, 292) = 4.76, p = .001. Contrast analyses showed that there was a significant difference between the real sadness condition and the remaining conditions (p = .001). A post hoc analysis showed that people in the real sadness condition indicated an overall higher level of other-concern (M = 3.09, SD = 1.17) than people in the real anger condition (M = 2.52, SD = .98) (p = .031). Additionally, people in the real sadness condition also indicated an overall higher level of other-concern (M = 3.09, SD = 1.17) than people in the fake anger condition (M = 2.36, SD = .97) (p = .001). No significant effects were found for the remaining comparisons.

## **Agreement final offer**

To test the third hypothesis that people are more likely to decline an agreement when exposed to an angry counterpart, a chi-square test was performed with the types of emotions as the independent variable and the acceptance of the final offer as the dependent variable.

Descriptives of the agreements for each condition are displayed in Table 4.

Table 4

Number of participants who reached an agreement in the online negotiation

	Anger	<u>Sadness</u>	<u>Neutral</u>	Total
Yes	37%	32%	31%	100%
	(N = 37)	(N = 32)	(N=31)	(N=100)
<u>No</u>	46.1%	37.8%	16.1%	100%
	(N = 89)	(N = 73)	(N = 31)	(N = 193)

There was no significant association between the type of emotion and the acceptance of the final offer,  $\chi 2(1) = .03$ , p = .854. These results do not support the hypothesis that people are more likely to decline agreements when exposed to a counterpart who expresses angry emotions than counterparts who express sad emotions.

In conclusion, people who experienced sad emotions expressed a higher level of relational outcome than people who experienced angry emotions, which supports hypothesis 1a. However, there were no differences between whether participants experienced real or fake emotions, therefore hypothesis 1b should be rejected. Additionally, there were no differences between real and fake sad emotions, as well as between real and fake angry emotions. Hypothesis 1c and 1d are rejected as well.

When looking at the level of empathy (other-concern) participants experienced, people who experienced sad emotions felt more empathy towards their counterpart than people who experienced angry emotions, which supports hypothesis 2a. As expected, people who experienced real emotions felt more empathy towards their counterpart than people who experienced fake emotions, which supports hypothesis 2b. Nonetheless, there were no differences between real and fake sad emotions, resulting in the rejection of hypothesis 2c. There were also no differences between real and fake angry emotions, therefore hypothesis 2d is also rejected.

Finally, participants did not decline more agreements when they were exposed to an angry counterpart than when they experienced a sad counterpart, which does not support hypothesis 3.

#### **Discussion**

The main goal of the current study was to examine the effects of displaying and revealing emotional deception in a negotiation, and whether the effects differ for anger and sadness. Effects were evaluated in terms of the level of empathy participants experienced towards their counterpart, as well as their perceived relational outcome. A third question addressed the extent to which participants agreed on the fourth and final offer of their counterpart was dependent on the type of emotion they were exposed to.

Previous studies found that when future negotiations were expected, sadness would be a preferred emotion to portray (Dehgani, Carnevale & Gratch, 2014) as opposed to anger (Côté, Hideg & van Kleef, 2013). The present study showed that people had a higher level of relational outcome when they were exposed to counterparts who expressed sadness as opposed to anger, which was in line with previous studies. However, for the relational outcome, it did not matter whether the emotion was real or fake. Additionally, no distinction was found in the expressed relational outcome between real and fake anger, nor between real or fake sadness. One of the items used to measure relational outcome asked participants if they would like to do business again in the future. An explanation for not finding any distinction between real and fake emotions could be that the negotiation scenario, the selling of a smartphone, did not invite for future negotiations. Participants may not have seen the value in negotiating again with their counterpart, regardless of whether they were emotionally deceived or not.

Furthermore, this study found that people felt more empathy towards a sad counterpart when compared to angry counterparts. Additionally, participants felt more empathy towards a real sad counterpart as opposed to a real angry counterpart. These results are in line with hypothesis 2a. In addition, the indicated level of empathy was higher for participants who experienced a counterpart that expressed a genuine emotion, as opposed to counterparts that expressed a fake emotion. Therefore, hypothesis 2b was supported as well. Nonetheless, this study did not reveal significant differences between real or fake sadness when looking at the level of empathy, nor between real or fake anger. The fact that no distinction was found between real and fake sadness nor between real or fake anger could be clarified by the possibility that participants did not feel a strong connection to their counterpart, nor to the product they were selling.

Lastly, results showed that people are not more likely to decline an offer when they are exposed to an angry counterpart, than when they experience a sad counterpart. A difference between real or fake emotions could not be established, as participants were not made aware of deception yet when they had to agree to the final offer. This might suggest that people did not bother much for the emotional deception, as they might have felt they were in charge of the entire negotiation as being the seller of the iPhone. Another suggestion is that participants may have wanted to opt out of the negotiation altogether, which was not possible in the experiment. For example, Gaspar and Schweitzer (2013) found that when deception is detected, trust is never fully restored, even if the deceiver apologizes, which adds to participant feeling the need to leave the negotiation. In retrospect, more insight should have been acquired on the underlying thoughts of participants when they are made aware of being emotionally deceived, for example what actions they preferable would want to take against their counterpart.

## Implications and future research

This study contributes to the existing literature about the use of emotions in negotiations, by directly comparing sadness and anger. The study performed by Rozin, Lowery, Imada and Haidt (1999) suggested that sadness would be more favorable to portray in a negotiation, which was confirmed by the findings of this study.

However, the present study has raised supplementary questions. For example, why did results not portray differences when looking at the validity of the experienced emotions? One crucial aspect of using deceptive measures is that deceiving is done with the aim of it staying undetected. As Gaspar and Schweitzer (2013) discussed, most negotiators are bad at uncovering lies, which means that most lies go unnoticed. However, to be able to investigate the effects of deception, it has to be revealed to the target. As a result, researchers are bound to result to the most common manner used to reveal deception, namely the use of an external

source. However, this measure can diminish the credibility of the deception (Gaspar & Schweitzer, 2013). Due to the difficulty in revealing deception in negotiations, very little is known about the effects of emotional deception. The present study aimed to provide more insight, but has ran into the similar limiting aspects as previous research. Therefore, broader investigation into deception is needed, exploring both undetected and detected deception, using repeated negotiations and investigating the long-term consequences.

Additionally, most negotiation studies involve dyadic, role-playing exercises. This way of research comes with multiple consequences, such as fewer opportunities for the target of deception to actually detect the deception (Gaspar & Schweitzer, 2013). Earlier research has established that facial expressions are an important sign to distinguish genuine or deceptive emotions (Bernstein, Young, Brown, Sacco & Claypool, 2008). Additionally, deceiving negotiators may suffer from *nonverbal leakage*, in portraying fear or guilt through their facial expressions, body language or vocal tone, which are incongruent with the lie the negotiator is trying to put up (Warren, Schertler & Bull, 2009). As the present study used an online negotiation setting, participants did not have those non-verbal cues to determine whether the emotion displayed was genuine or not, as the only cue that was available was the computer-generated message revealing the emotional deception. Having the counterpart in the negotiation come forward with the emotional deception him-/herself may have resulted in a higher level of awareness of emotional deception. It is recommended to further explore these aspects, for example by using a video conferencing tool via which a negotiation takes place, which allows for more visual cues.

However, it can also be suggested that participants may have felt that they were not negotiating with a real life person, but were more so responding to computer-generated messages. They may have felt an absence of a real-life counterpart in the negotiation, because they were not exposed to more cues that can enhance the feeling of social presence. This is

further supported by Lo (2009), who found that because computer-mediated communication lacks nonverbal cues, social presence is lower than in face-to-face communication. Lack of these cues also causes receivers to misunderstand the intent of the messages, resulting in conflicts that may arise (Lo, 2009). For that reason, future research should investigate the use of emotional deception in a face-to-face setting, or a setting that allows for more (visual) cues, to examine if similar results occur.

This study aimed to replicate a true to life negotiation setting, by implementing the differences stages of a negotiation into the experiment. However, there was no possibility for participants to agree to an offer in any earlier stage than the fourth round of the negotiation. This could have been of influence on the progress and participants' impression of the negotiation. In some cases, participants already proposed an offer that was relatively close to the offer of their counterpart. In a real-life negotiation, this would have resulted in an early agreement. In this experiment, however, participants could only agree with the fourth offer, and thus had to continue negotiating regardless.

Another implication is the same gender dyads that were used in the present study. Thompson (1990) established that in negotiations, men are more prone to winning the negotiation and maximizing their individual outcome. Women however are more concerned with the interpersonal aspect of the situation, and want to maintain a relationship with their counterpart (Thompson, 1990). This suggests that men and women may use different negotiation styles, which were not taken into account when composing the negotiation messages, and could have contributed to a possible lack of believability of the messages. This study did not look at differences based on gender, where previous research suggests that women are highly sensitive and may respond to fake emotions differently than men (Kray & Thompson, 2004). Future research may look into gender differences, as well as differences in negotiation partner.

Future research should also replicate the present study under different conditions. This study used an e-negotiation setting. Galin, Gross and Gosalker (2004) found that the negotiation media did not affect negotiation outcomes, as they were equal for both face-to-face negotiations as well as e-negotiations. However, Purdy and Nye (2000) found that participants who negotiated using richer media were more prone to seek a collaborative outcome than to initiate a distributive negotiation. The researchers also found that cooperative bargaining setting had a direct impact on the relational outcome of the negotiation (Purdy & Nye, 2000). Therefore, a recommendation for a follow-up study would be to establish whether a more distributive setting, with a more high-stake product or concept, effects the relational outcome, as well as participants' feelings of empathy.

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## Appendix A – Materials

Anger

Message	Original (pre-tested)	Adjusted	Word Count
Opening	Hello! I am interested in the iPhone you have for sale. I would be willing to pay €300 for it. Thank you.	Hello! I am interested in the iPhone you have for sale. I would be willing to pay €250 for it. Let me know what you think. Thank you.	28
2	I cannot believe you would think that I would pay that much for your iPhone!  ☑ ② I do not think that I should be doing this but I will slightly lower my offer and change it to €310, but I know it is not worth more than what I am offering you now. Do we have a deal?	I cannot believe you want me to pay that much, that's unacceptable! However, I'll raise my offer to €280. Do we have a deal?	24
3	Wow, I did not think you would actually make such an offer. ℍ Honestly, I want that iPhone more than anyone else and I know I will get it, but that price is making me furious. This is more what I had in mind: €325. Ѡ	This attitude is ridiculous, and honestly it's making me furious. want this iPhone more than anyone else, so can we agree on €290?	24
4	This offer is outrageous! ② ② I will not pay that amount of money for that phone. ② €330 seems like a more reasonable amount to me.	I can't believe you, this is outrageous! I will not pay that amount of money for the phone. I am really annoyed by the course of this impossible negotiation.   I have had enough. Can we agree on €300?	38
Agreement	Okay, I will accept your offer of €340. I am glad we have come to an agreement. I will come to pick it up as soon as possible!	Okay, although this negotiation has been difficult for me, I am glad that the two of us could come to an agreement. I will come to pick up the phone as soon as possible.	34
No agreement	I really hoped we could come to a deal. But unfortunately, this is the end for me. Good luck selling your iPhone!	I'm afraid this isn't going to work for me. The negotiation process has upset me very much, and I don't want to negotiate any further. Good luck selling your iPhone to someone else.	33

# Sadness

Message	Original (pre-tested)	Adjusted	Word Count
Opening	Hello! I am interested in the iPhone you have for sale. I would be willing to pay €300 for it. Thank you.	Hello! I am interested in the iPhone you have for sale. I would be willing to pay €250 for it. Let me know what you think. Thank you.	28
2	This offer makes me sad ② Can you drop your price a little, for example to €310? ② Do we have a deal?	You're making me feel awful ② Can you drop your price a little, for example to €280? Do we have a deal?	22
3	I am very much saddened by your offer. ② I simply cannot pay more than €325 for your phone, I hope you can understand that. ②	I'm really feeling down right now I simply cannot pay more than €290 for your phone, I really hope you can understand that. ②	24
4	This offer still really saddens me ② ② Can we agree on €330? ②	How could you do this to me?  I already have so much debt and so little money, and the phone is already two years old Please help me out here. Can we agree on €300?	37
Agreement	I am glad we have come to an agreement. I will come to pick it up as soon as possible!	Even though I am still feeling really low, I am glad we have come to an agreement. Thank you for understanding.    I will come to pick it up as soon as possible!	33
No Agreement	I really hoped we could come to a deal. But unfortunately, this is the end for me. Good luck selling your iPhone!	I am broken hearted that we haven't reached an agreement I really hoped we could come to a deal, but sadly this is the end for me. Good luck selling your iPhone.	33

## Neutral

Message	Original (pre-tested)	Adjusted	Word Count
Opening	Hello! I am interested in the iPhone you have for sale. I would be willing to pay €300 for it. Thank you.	Hello! I am interested in the iPhone you have for sale. I would be willing to pay €250 for it. Let me know what you think. Thank you.	28
2	I think that is too much. I would like to give you €280 for it. Do we have a deal?	I think that is too much. I would like to give you €280 for it. Do we have a deal?	20
3	I still think you're overestimating the worth of the phone you are selling. I think €290 is a fair price.	I still cannot agree on your offer. I think you can go lower than what you're offering now. What I can do, is offer you €290.	26
4	I still cannot agree on your offer. What I can do, is offer you €300.	I really think you're overestimating the worth of the phone you're selling. The phone is also two years old already, so I think you should sell it for less than that. Can we agree on €300?	36
Agreement	I am glad that we have come to an agreement. I will come to pick the phone up as soon as possible!	Okay, I will accept your offer. I think we have met halfway, and I am glad we have come to an agreement. I will come to pick it up as soon as possible!	33
No agreement	I really hoped we could come to a deal. But unfortunately, this is the end for me. Good luck selling your iPhone!	I don't think we can come to an agreement here. I really hoped we could come to a deal. But unfortunately, this is the end for me. Good luck selling your iPhone!	32

#### Appendix B – Informed Consent

Dear participant,

Thank you for your interest in our questionnaire. Please read the following before proceeding:

In this study we are interested in the process of negotiation in an online environment. First, you will be asked to answer a few questions about yourself. You will then be asked to negotiate about the price of a phone which you are selling via an online platform. After completing the task, you will be asked to answer a questionnaire about the negotiation. It will take approximately 15 minutes to participate.

Participation in this study is voluntary and you are free to stop your participation at any time. Your data is treated confidentially, and digital data is stored in secure computer files. You do not need to make a note of your name and any other identification data will be deleted from the files.

If you have any questions about this research project, please contact Iris van der Ster or Eline Niessen Tilburg University, The Netherlands.

I have had the opportunity to read the explanation about the research. I am prepared to participate in this study:

O Yes

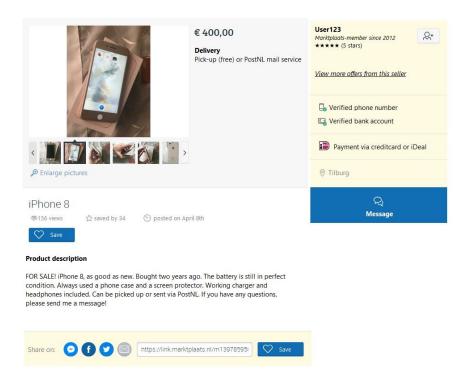
O No

### Appendix C – Instruction page & Advertisement

You have recently bought a new iPhone, the iPhone X to be precise, which means you now have a spare phone, which you have decided to sell. You always used a protective phone case, as well as a screen protector, to protect your iPhone 8. Because of this, your phone has no damage whatsoever. When you bought your iPhone 8, it cost around €1000,-. You decide you want to get a fair price for the phone, so you decide to set your asking price to €400,-.

You decide to sell your phone on Marktplaats, a selling platform which consumers and companies can use to sell products to other consumers. Marktplaats offers an app, which you can download on your smartphone. On Marktplaats, you can offer your products for a specific price, or offer consumers the option to place a bid on your product. You can than accept this offer, or you can make a counteroffer. Marktplaats has integrated a chat function, through which you can communicate with a possible buyer.

The advertisement you posted on Marktplaats to help you sell your phone is as follows:



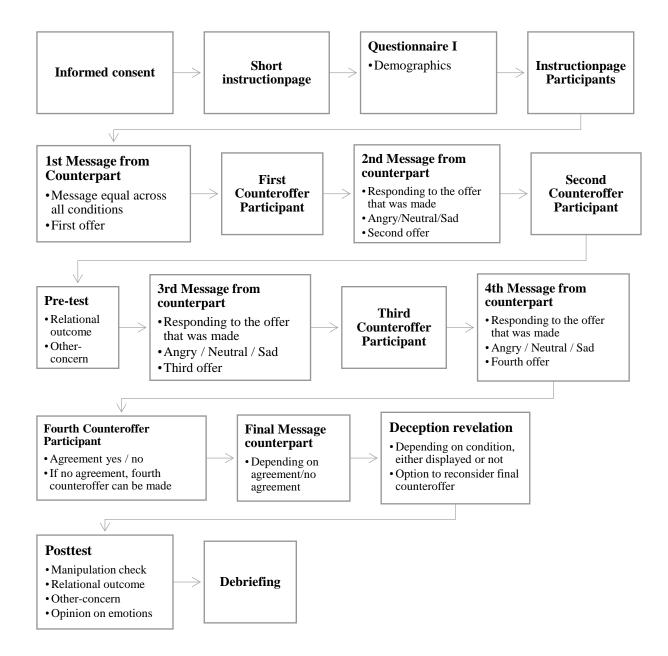
Someone has shown interest in your iPhone. You are going to negotiate with this counterpart to determine a price for the iPhone on which you can both agree. It is up to you to determine the actual price you sell your iPhone 8 for, however €400,- is a good indicative price.

However, you have done some investigating before you put the phone up for sale, and iPhone 7's normally don't sell for less than €200,- which is why you cannot give offers lower than that price. Because you set the price to €400,- in the advertisement on Marktplaats, you cannot ask for anything higher than that.

In every round, you have the option to make a counteroffer, and type a message back to your counterpart. You can make a total of four counteroffers to your counterpart.

If you have understand the instruction above, you can click next. The negotiation will start with the first message you received from the possible buyer of the iPhone 8, to which you can reply.

#### Appendix D – Negotiation Overview



#### Appendix E – Debriefing

You have now completed this experiment. Thank you for participating in this study.

We would now like to inform you about the true purpose of this study. It is often necessary to not tell participants about the true purpose of the study at the beginning. If participants are aware of the true nature of the experiment, it may affect how they respond to questions that are asked, or certain tasks they have to execute. Results may be affected or may even be considered invalid because of this. It was therefore decided not to inform you about the true meaning of this study.

The true purpose of this study was to examine how people respond in negotiations when their counterpart has expressed fake emotions to deceive the other party. Participants have been exposed to angry, sad or neutral emotions expressed by their counterpart. Not all participants have been made aware of this halfway through the experiment, but all participants have been exposed to fake emotions. The questionnaires halfway through and at the end of the experiment will serve to examine if deception through emotions has an effect on the outcome of negotiations.

It is therefore crucial that you, as a participant, understand that this negotiation was completely **fictional**. The deception that was part of this study is also completely **fictional**.

Because this study is still ongoing, we would like to ask you not to disclose this information to anyone in your surroundings that may be participating in this study. We would advise you to not disclose any other information than the information that was given at the beginning of this study. If future participants are made aware of the true nature of this study, this may affect the data that will result from this experiment.

If after this revelation, you have any questions regarding your participation or the study in general, please contact the applicants of this study:

We would like to thank you for your contribution to this study.