

# Gender and the Propensity to Initiate Negotiations

## An Experimental Study from a Dyadic Perspective

### **Abstract**

Recent research shows that women are less likely than men to initiate negotiations. In this study we examine whether this result holds for Swedish university students. We also extend previous research by investigating the effect of the gender of the negotiation partner. The results reveal that women are less prone than men to initiate negotiations. This gender difference seems to be partly driven by the fact that men are more confident than women. However, the gender difference in the propensity to initiate negotiations is only significant when the negotiation partner is a woman. This finding points to the importance of taking the gender composition of the negotiation dyad into consideration when analyzing gender differences in negotiation.

**Key Words:** Gender Differences, Negotiation, Dyad Composition

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# 1 Introduction

Sweden is one of the most gender equal countries in the world (Hausmann, Tyson and Zahidi, 2008). Still, controlling for differences in age, education, working time and sector, Swedish women earn five percent less than Swedish men (The Swedish National Mediation Office, 2008). If employees who negotiate their wage earn more than their colleagues who accept the employer's initial offer, and if women are less likely than men to initiate negotiations, part of the unexplained gender wage gap could be accounted for by gender differences in the propensity to initiate negotiations. In this thesis we investigate gender differences in the propensity to initiate negotiations among Swedish university students. Performing this analysis on Swedish data is particularly interesting since one might expect that Sweden's high level of gender equality will be reflected in smaller gender differences in the propensity to initiate negotiations than suggested by studies from other countries. Moreover, during the last four decades, the Swedish wage setting system has been highly decentralized (Granqvist and Regnér, 2008). As a result, individual wage negotiation has a growing impact on Swedish wages (Granqvist and Regnér, 2004; Granqvist and Regnér, 2007), making the potential impact of gender differences in negotiation larger. Accordingly, from a Swedish perspective, an analysis of gender differences in the propensity to initiate negotiations is of increasing relevance.

Results from field studies (e.g. Babcock, Laschever, Gelfand and Small, 2003; Babcock, Gelfand, Small and Stayn, 2006) as well as from experimental studies (e.g. Bowles, Babcock and McGinn, 2005; Small, Gelfand, Babcock and Gettman, 2007) show that women are less likely than men to initiate negotiations. The magnitude of the gender difference does however vary across studies, suggesting that the context of the negotiation is an important determinant of gender differences in negotiation. As a result, several recent studies examine how different contextual variables, such as the degree of ambiguity and the framing of the situation, influence gender differences in negotiation. However, a contextual variable that has been largely left out in prior research is the gender of the negotiation partner (Kray and Thompson, 2005). Consequently, the effect of the interaction between the gender of the negotiator and the gender of his or her negotiation partner has not been much examined. In other words, it has not been fully explored how the gender composition of the negotiation dyad influences negotiation behavior.

The aim of this thesis is to contribute to the research on gender differences in the propensity to initiate negotiations, and to shed some light on the role of the gender composition of the negotiation dyad. We do this by conducting an experiment originally designed by Small et al. (2007), in which participants perform a word game in exchange for cash. The experiment is conducted under the supervision of a trained experimenter, and the participants are informed that their exact payment is negotiable. When the participants have completed the word game they are, regardless of their performance, offered the minimum payment possible. Then, it is assessed whether or not the participants initiate a negotiation for higher compensation by asking for more money than they are offered. Small et al. (2007) find that women are significantly less likely than men to initiate a negotiation. In order to test for the effect of the gender composition of the negotiation dyad, we modify Small et al.'s (2007) experimental design by employing several experimenters of each gender.

This thesis adds to the previous research on gender differences in negotiation in two ways. First, we test for gender differences in the propensity to initiate negotiations by replicating the experiment performed by Small et al. (2007). This is the first experimental study testing for such gender differences on Swedish data. Second, we systematically test for gender composition effects on initiation of negotiation, which has never been done in this type of experimental paradigm before. By addressing the following two research questions, we hope to fill a gap in the experimental research on gender and initiation of negotiations:

- 1. Is there a gender difference in the propensity to initiate a negotiation?*
- 2. How does the propensity to initiate a negotiation vary with the gender composition of the negotiation dyad?*

Or, more specifically:

*2a) Given the gender of the participant, is he or she equally likely to initiate a negotiation with a male as with a female experimenter?*

*2b) Given the gender of the experimenter, are male and female participants equally likely to initiate a negotiation with him or her?*

We also hope that our study can add to the debate on how to counteract the unexplained gender wage gap. Our contribution to the evaluation of different policy measures lies especially in the fact that we investigate effects of the gender of the negotiation partner. This aspect is for example of interest when discussing affirmative action. Supporters of gender quotas sometimes argue that the promotion of women to senior positions has a positive “snowball effect”, since these women hire, promote and create better career opportunities for other women. This argument for gender quotas is strengthened if women are more likely to initiate negotiations with a female negotiation partner than with a male negotiation partner.

This thesis is organized as follows. Section 2 describes previous research on gender differences in negotiation and our research hypotheses. Section 3 presents the experimental design and the statistical methods, and section 4 presents the results. Section 5 offers a discussion of the results and some concluding remarks.

## 2 Previous research

### 2.1 Gender differences in negotiation

Gender differences in negotiation have been an interest of negotiation researchers for a long time, and numerous studies have been published during the past decades.<sup>1</sup> During recent years, academic interest in the area has increased substantially (Bohnet and Bowles, 2008). When investigating gender differences in negotiation, researchers have used a variety of different empirical methods and measures of negotiation performance (Kray and Thompson, 2005). Many researchers have used controlled experiments in which participants are instructed to negotiate with a counterpart and try to achieve as much value as possible for themselves in the negotiation. In addition, the area has been examined through different types of surveys and field studies. The dependent measures in previous studies have varied considerably. Gender differences in negotiation performance have been measured for instance in terms of negotiation styles, negotiation strategies, differences in monetary outcomes, time to reach an agreement and negotiator goals or expectations (Small et al., 2007).

#### 2.1.1 Individual-differences perspective

##### *Gender differences in negotiation performance*

The first generation of research on gender and negotiation approaches the issue from an individual-differences perspective. This means that researchers investigate whether the gender<sup>2</sup> of a negotiator is a stable predictor of his or her behavior and performance in a negotiation (Bowles et al., 2005). According to Kray and Thompson's (2005) literature survey, the most robust finding from the first generation of research on gender and negotiation is that men achieve a better economic outcome than women. In a meta-analysis of 21 studies, Stuhlmacher and Walters (1999) confirm this result.

It is also evident from previous research that men and women view themselves differently at the bargaining table. Compared to women, men set higher goals, are less anxious over negotiating, are more comfortable being paid more than others and expect to perform better in the negotiation (Kray and Thompson, 2005). In addition, previous studies suggest that women expect to be paid less than men do in a negotiation, and feel less entitled to rewards and compensations. For instance, when getting the opportunity to determine their own compensation or dividing compensation between themselves and others, women tend to allocate less resources to themselves than men do (Stuhlmacher and Walters, 1999; Babcock et al., 2006; Kaman and Hartel, 1994).

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<sup>1</sup> For overviews of the research, see for instance Kray and Thompson, 2005; Stuhlmacher and Walters, 1999; Walters, Stuhlmacher and Meyer, 1998.

<sup>2</sup> In line with Bowles, Babcock and Lai (2007), we use the term "gender" and not "sex" since the latter term connotes stable individual differences whereas we are studying the influence of social situations on men's and women's behavior.

Furthermore, experiments have revealed differences in negotiating behavior and tactics between men and women. Women make less use of threats and positional commitments, speak less and display more self-doubt than men when negotiating (Stuhlmacher and Walters, 1999). Moreover, according to Walters, Stuhlmacher and Meyer's (1998) meta-analysis of 62 research reports, women negotiate more cooperatively than men.

### ***Gender differences in the propensity to initiate negotiations***

Despite the numerous studies on gender and negotiation, few studies touch upon the actual initiation of negotiations. Compared to female job candidates, male candidates perceive a wider range between a job recruiter's most preferred outcome and resistance point, which indicates that men perceive more opportunities for negotiation than women do (Kaman and Hartel, 1994). Furthermore, a study of MBAs who had recently graduated from an American university finds that eight times as many men as women asked for higher salary when starting a new employment (Babcock et al., 2003). The finding that men initiate negotiations more often than women is confirmed in a large online survey asking participants about their most recent negotiation and expected future negotiations (Babcock et al., 2006; Babcock et al., 2003). Men recall having initiated negotiations much more recently than women. Men also predict that they will initiate a new negotiation much sooner than women do.

In most previous negotiation experiments, participants are explicitly instructed to negotiate. Naturally, instructions of this kind make it impossible to examine gender differences in the propensity to initiate negotiations. To our knowledge, only two experimental studies have estimated whether men and women are equally likely to initiate negotiations; Bowles, Babcock and Lai (2007) and Small et al. (2007). In Bowles et al.'s (2007) study, participants are instructed to prepare for an interview and are given information about the gender of the manager and the salary they will receive if they get the job. Then they are told to rate how likely they would be to ask the manager for higher compensation. The results suggest that women are more reluctant than men to initiate negotiations.

Small et al. (2007) perform a series of experiments in which participants play the word game Boggle in exchange for cash. All participants are then offered the minimum payment possible and the authors measure whether participants initiate a negotiation for more money. Consequently, Small et al.'s (2007) study differs from that of Bowles et al. (2007) in that participants have to decide whether to negotiate standing face-to-face with their negotiation partner. In addition, in Small et al.'s (2007) study participants' monetary payoffs depend on whether they initiate a negotiation or not, which is not the case in Bowles et al. (2007). Despite any gender difference in the performance on the word game, Small et al. (2007) find that men are much more likely than women to initiate negotiations.

In summary, the research done from an individual-differences perspective suggests that men, as compared to women, achieve better economic outcomes in negotiations, negotiate more competitively and initiate more negotiations. However, the magnitude of the gender differences varies considerably across studies. These inconsistencies have motivated a second generation of research with the starting point that the context of the negotiation influences the size of the gender differences (Bowles et al., 2005).

### **2.1.2 Gender-in-context perspective**

The second generation of research on gender differences in negotiation has made it clear that gender is not a stable predictor of negotiating behavior or performance. Instead, it is evident that gender differences depend on a variety of situational factors making gender more or less relevant in the negotiation (Bohnet and Bowles, 2008).

Bowles et al. (2005) perform several negotiation experiments in order to investigate how gender effects vary with the context of the negotiation. When investigating the effect of representation role, the authors find that women, but not men, generally perform better in negotiations when they negotiate on behalf of someone else rather than acting for themselves. Furthermore, when giving the participants more information regarding the negotiation, and thereby reducing the uncertainty of the situation, the gender difference in performance decreases. Additional studies and literature reviews verify the fact that weak situations with few clear behavioral cues are likely to induce more gender differences at the bargaining table than stronger, less uncertain situations (Kray and Thompson, 2005; Riley and Babcock, 2002; Riley and McGinn, 2002). For instance, Walters et al. (1998) find that gender differences in negotiator competitiveness are lessened when communication is restricted and negotiators are more constrained.

Kray, Galinsky and Thompson (2001) examine how the activation of gender stereotypes affects negotiation performance. They argue that the current gender stereotype favors men at the negotiating table in the sense that typical male traits are seen as valuable for being successful in a negotiation. Through several experiments in which participants are instructed to maximize their outcome in a negotiation task, the authors show that gender differences in negotiation performance depend on the way in which the gender stereotype is activated. When implicitly activating the gender stereotype by telling the participants that the task is diagnostic of their inherent ability, men perform better than women in the negotiation. However, when the authors activate the stereotype explicitly, by openly telling the participants that men perform better than women in negotiations, the results are completely reversed and the female participants outperform the male participants. The authors argue that stereotype reactance is a possible explanation for this result. When explicitly reminded of the gender stereotype, women actively attempt to disassociate themselves from the limiting female stereotype, while men choke under the pressure of an explicit positive male stereotype.

Furthermore, the nature and location of the negotiation task seem to influence the size of gender differences. Integrative tasks where the joint gain can be maximized through cooperation provide less of an advantage for men (Stuhlmacher and Walters, 1999). Moreover, women initiate more negotiations outside of work than in a work domain (Kray and Thompson, 2005).

The gender-in-context perspective is also present in the previously mentioned study by Small et al. (2007) on gender differences in the propensity to initiate negotiations. Following their initial experiment, in which women are less inclined to initiate negotiations than men, the authors perform a survey on participants' feelings regarding negotiating. In the survey, the framing of the potential negotiation situation is varied between the possibility of asking for something and the possibility of negotiating for something. Women report to be more intimidated by the prospect of negotiating for things than by the prospect of asking for things. The authors also perform an

experiment including two different frames regarding the negotiability of the payment. When changing the frame from a cue stating that it is possible to negotiate for more money, to a cue stating that it is possible to ask for more money, the gender difference in the propensity to initiate a negotiation disappears.

## **2.2 Gender composition of the negotiation dyad**

Recent experimental studies on gender differences within various domains have adopted the gender-in-context perspective by taking the gender composition of the dyad into consideration. In research on gender differences in competitiveness, the gender composition effect varies across studies (Croson and Gneezy, 2004). For example, Gneezy, Niederly and Rustichini (2003) find that women are better at solving a maze task when competing against other women than when competing against men. However, Gneezy and Rustichini (2004) find that school girls run faster competing against a boy, than competing against another girl. Gender composition effects have been observed in other domains as well. In ultimatum games, both men and women offer more money to men than to women (Eckel and Grossman, 2001; Solnick, 2001), and in dictator games women give more money to men than to other women (Ben-Ner, Kong and Putterman, 2004). Further, when examining gender differences in preschoolers' sharing behavior, Burford, Foley, Rollins and Rosario (1996) conclude that boys are more coercive when interacting with a boy than they are when interacting with a girl. The fact that a gender composition effect prevails in various domains, suggests that it is of interest to examine whether the gender of the negotiation partner influences gender differences in negotiation.

In previous negotiation research, only a handful of studies have examined the role of the gender of the negotiation partner. The results from these studies are inconsistent and the issue of gender composition effects is approached from two different perspectives. In some studies, the gender of the negotiator is used as starting point. Given the gender of the negotiator, it is examined whether he or she behaves the same way with male and female negotiation partners. Other studies use the gender of the negotiation partner as starting point. Given the gender of the negotiation partner, it is examined whether male and female negotiators facing the negotiation partner behave differently. Previous studies on gender composition effects in negotiation also differ with regard to what gender they study; some examine gender composition effects on both genders, while other limit their analysis to gender composition effects on either women or men.

### **2.2.1 Gender composition effects on negotiation performance**

In one of the experiments performed in the previously mentioned study by Kray et al. (2001), participants engage in a negotiation over the sales price of a product. Employing two different dyad compositions; male/female and male/male, the authors conclude that men are better off negotiating with a woman than with a man. This effect increases in size when participants are given instructions linking characteristics stereotypical of men to effective negotiators. The authors explain this phenomenon by pointing to the fact that the activation of the gender stereotype enhances men's, but not women's, performance. Consequently, in the male/female dyads, men's performance increase relative to that of women. In male/male dyads, on the other hand, the relative performance of the negotiation parties is held constant. In an additional experiment of the same study, one of the participants plays the role of a recruiter, and the other that of a job candidate negotiating for increased salary and benefits. To test if women adjust their

behavior to the gender of the negotiation partner, the authors employ two different dyad compositions; female/male and female/female. Under the control condition, when no gender stereotypes are activated, women are better off negotiating with a woman than with a man. However, when participants are told that male and female students have been shown to differ in performance on the task, women are better off negotiating with a man than with a woman.

Bowles and Flynn (2009) recently conducted two experiments to investigate gender composition effects on the persistence in negotiations. In the first experiment, participants negotiate with a trained experimenter over the sales price of a house, and then they answer a series of questions assessing how persistent they were in the negotiation. Using the gender of the negotiator as starting point, the authors conclude that male negotiators are equally persistent with male and female negotiation partners. Female negotiators, on the other hand, are more persistent with male than with female negotiation partners. In the second experiment, the negotiation is videotaped, and the degree of persistence is assessed by two hypothesis-blind research assistants. The results from this experiment replicate those of the first experiment.

### **2.2.2 Gender composition effects on the propensity to initiate negotiations**

As previously mentioned, two experimental studies examine gender differences in the propensity to initiate negotiations; Bowles et al. (2007) and Small et al. (2007). Bowles et al. (2007) use the gender of the negotiation partner as starting point, and find that when the negotiation partner is a man, men are more likely than women to initiate a negotiation. Nevertheless, when the negotiation partner is a woman, men and women are equally likely to initiate a negotiation.

Small et al. (2007) emphasize that their experiments are not designed to test for gender composition effects since they employ only two experimenters; one man and one woman, serving as negotiation partners for the participants. Even though the experimenters are similar in appearance and trained to behave according to a certain script, the authors cannot rule out the possibility that other characteristics influencing the participants' decision whether to negotiate differ between the experimenters. Thus, the authors state that an adequate test of gender composition effects would require multiple experimenters of each gender. Yet, in two of their experiments, Small et al. (2007) test for gender composition effects. In one of these experiments, neither male nor female negotiators adjust their behavior to the gender of the negotiation partner. In the other experiment, both male and female negotiators are more likely to initiate a negotiation with a negotiation partner of the same gender as themselves than with a negotiation partner of the opposite gender. However, since only one experimenter of each gender is used, the authors refrain from drawing any conclusions about the gender composition effect, leaving this topic for future research.

## **2.3 Hypotheses**

As stated in the introduction, our first research question is whether there is a gender difference in the propensity to initiate a negotiation. Following the results in Small et al. (2007), our research hypothesis is that men are more likely than women to initiate a negotiation for higher payment.

Research question two concerns the role of the gender composition of the negotiation dyad. Since few studies on gender differences in negotiation have investigated this issue, and the results from these studies are inconsistent, we refrain from stating a hypothesis on this matter.

### **3 Experimental design and statistical methods**

The experiment we conduct is intended to reflect real world situations in which individuals know that the wage is negotiable, but in order to receive more money than what is initially offered they need to initiate a negotiation by asking for more. The design of the experiment is to a large extent inspired by one of the experiments in Small et al. (2007).

The experiment was performed during ten days in the time period November 2008 – January 2009. Three sessions took place at Stockholm University, three sessions at Södertörn University and four sessions at Studentpalatset (a place for study for students from different universities in Stockholm). We also conducted two pilot sessions in October 2008 in order to investigate how the participants responded to the instructions. After the pilot sessions, the experimental design was slightly changed. For this reason, the observations collected during the pilot sessions were left out of the final data set.<sup>3</sup>

#### **3.1 Experimental design**

##### **3.1.1 Participants**

A total of 204 individuals (107 men and 97 women) participated in the experiment. All participants were students, of which 61 were recruited at Stockholm University, 61 at Södertörn University and 82 at Studentpalatset. The age of participants ranged from 18 to 41 years, with an average age of 24.

##### **3.1.2 Experimenters**

We used multiple experimenters of each gender in order to investigate the effect of the gender of the negotiation partner. During each experimental session, one male experimenter and one female experimenter conducted the experiment on around ten participants each. In total, we used 20 different experimenters (ten men and ten women). The experimenters' ages ranged from 20 to 26 years, with an average age of 24. Some of the experimenters were students, some were former students and some had no academic background. The appearance of the experimenters varied since we did not standardize factors such as height, weight and attractiveness when selecting experimenters. However, we standardized the behavior of the experimenters as much as we could, by instructing them to limit their speech and actions to the same narrow script. Before each experimental session, we conducted thorough practice negotiations with the experimenters until they were comfortable with the script. We also randomized the dress code of the experimenters so that one of the experimenters of each session was formally dressed in business wear while the other experimenter was casually dressed in jeans and t-shirt. This feature enables us to control for the dress code of the experimenters. Finally, all experimenters were unaware of the purpose of the experiment.

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<sup>3</sup> However, when adding the observations from the pilot sessions to the final data set and conducting the same statistical tests as in section 4, no conclusions are changed.

### **3.1.3 Procedure**

In order to reduce self-selection bias in the sample of participants, half of the participants in each session were recruited by a female recruiter and the other half by a male recruiter. The recruiters were instructed to select potential participants as randomly as possible. Participants were asked if they would like to participate in a study, and informed that it would take approximately fifteen minutes and that they would receive between 30 and 100 SEK in cash payment. No information was given on how the exact payment would be determined.

Once a student agreed to participate in the experiment, he or she was escorted to a separate room where an experimenter waited. Participants were randomly assigned to a male or a female experimenter. The participant was subsequently given a word puzzle and was instructed to find as many words as possible during three minutes. For a translation of the instructions and a copy of the word puzzle, see appendices A and B. When three minutes had passed, the experimenter collected the word puzzle and the participant received the following written instructions: “You have now finished your word puzzle and will be paid between 30 and 100 SEK. Wait here while your word puzzle is being scored. When the word puzzle has been scored, you will be paid. The exact payment is negotiable.” The participant was then left alone with these instructions for approximately two minutes.

When two minutes had passed, the experimenter returned to the room, held out 30 SEK and said: “Thank you for participating. You will receive 30 SEK in compensation. Is that OK?”. If the participant accepted the offer, he or she was paid 30 SEK. If the participant asked for a higher payment, he or she was offered more money. Participants who asked for a specific amount lower than or equal to the maximum payment were given the amount they asked for, and participants who asked for an amount larger than the maximum payment were given the maximum payment. Participants who asked for more money without stating a specific amount were offered 10 SEK more, and if they kept asking for more, this was repeated until the maximum payment was reached. When the participant had been paid, the experimenter declared that the experiment was over and the participant was instructed to fill out a questionnaire. It is important to point out that participants who asked questions or complained about the payment, without explicitly asking for more money, were not offered more than 30 SEK. In the case of questions or complaints, the experimenters were instructed to limit their behavior to a set of standardized responses. For instance, if the participant asked questions about how the payment was determined, the experimenter was instructed to answer: “I am sorry, but I cannot answer that type of question during the study. We will provide you with a full report when the study has been completed.”

The dependent variable used to measure initiation of negotiation is whether the participant asked for more money or not. We retrieved this variable through brief questionnaires filled out by the experimenters after each participant.

### **3.1.4 Participant questionnaire**

After the negotiation, participants were instructed to fill out a questionnaire on demographic characteristics, enabling us to control for background variables such as age. In addition participants were asked to estimate how well they did on the word puzzle compared to the

average participant. Finally, participants were asked what they believed to be the purpose of the study and whether they had heard about the study prior to participating. We waited until after the negotiation to ask these follow-up questions because we wanted to avoid the risk of contaminating our dependent variable. If we had asked some of the questions before the negotiation, participants might have been influenced by the questions in their decision on whether to initiate a negotiation or not.

### **3.1.5 Sound recording**

We made sound recordings of all negotiations, which enables us to verify that the experimenters acted according to the script. The sound recordings also make it possible to assure that the experimenters interpreted the situation in accordance with the instructions and filled out the questionnaires correctly. The recording device was hidden to the participants during the negotiations since we did not want the behavior of the participants to be influenced by the recording. After each experimental session, we sent an e-mail to the participants, explaining that the negotiation had been recorded and that the recording would be used only in our research. We also informed participants that they were free to contact us if they wanted us to erase the recording without listening to it. Out of all 204 participants, four participants contacted us and asked us not to use the recordings, whereupon we erased those recordings. Furthermore fifteen participants did not leave a valid e-mail address. Since we had no possibility to contact those participants and inform them about the recording, we have not listened to those recordings either. Finally, in seven cases, we lack recordings because of technical failures. In total, we have thus listened to 178 out of 204 recordings. As previously mentioned, we obtain the dependent variable, whether the participant negotiated or not, from the questionnaires filled out by the experimenters. However, we also perform a sensitivity analysis excluding all observations for which the recording reveals that the experimenter did not act in accordance with the script.

### **3.1.6 Size of the compensation**

Concerning the size of the compensation, we had a limited budget preventing us from allocating more than a maximum payment of 100 SEK to each participant. However, we believe that the gap between 30 SEK and 100 SEK, resulting in a potential gain of 70 SEK in case of asking for more, is enough to provide financial incentives for initiating a negotiation. This is especially true since we used a student population and students are generally in need of ready money. Another motive for choosing a compensation ranging from 30 to 100 SEK is that the compensation in Small et al. (2007) ranges from 3 to 10 dollars. Since the absolute values as well as the range are approximately the same in our study as in theirs, we expect the financial incentive for initiating a negotiation to be similar across the two studies.

Since we conducted several experimental sessions at each location, it was important that we prevented rumors among the students concerning how easy it was to obtain a higher payment simply by asking for more money. That is, we did not want the participants to know that their final payment was independent of factors such as performance in the word puzzle and negotiation tactics. Therefore, in order to confuse the participants, we decided not to use the same maximum payment for all participants. Instead, the highest possible payment for each participant was randomly assigned to an amount between 60 and 100 SEK. This amount was never revealed to the participant.

### **3.1.7 Choice of task**

Furthermore, since we did not want gender differences in performance and attitude towards the task to influence the gender difference in the propensity to initiate negotiations, it was important to choose a task as gender neutral as possible. Small et al. (2007) conduct a survey which shows that men and women find the word game Boggle equally enjoyable, interesting and motivating. Since the word puzzle we employ is similar to Boggle, we have reason to believe that our task is fairly gender neutral. Moreover, in line with Small et al. (2007), we refrain from giving the participants any feedback on their performance on the word puzzle. In addition, it is practically impossible to find all the words in the word puzzle in only three minutes. Consequently, it was difficult for the participants to know how well they performed relative to other participants. As a result, our experiment captures gender differences in the propensity to initiate negotiations solely based on participants' internal cues.

### **3.2 Comparison to Small et al. (2007)**

As previously mentioned, Small et al. (2007) perform several experiments with different framings. For our study, we chose a frame in which participants are informed about the fact that their exact payment is negotiable. The reason for this choice is that we believe that people who have the possibility to bargain over their wage or career advancement are aware of this possibility. Thus, this frame mirrors a real world situation better than a frame in which participants are not aware of the negotiability of the payment. Moreover, Small et al. (2007) vary the phrase they use to inform participants about the negotiability of the payment. In one frame they state that there is a "possibility to ask for more money", while in another frame, they state that "the exact payment is negotiable". We use the latter phrase since we believe that it reflects the vocabulary used in the labor market better than the former phrase.

The most important difference between our study and that of Small et al. (2007) is that we have ten experimenters of each gender, while they have only one female and one male experimenter. When employing only one experimenter of each gender it is difficult to determine why the participants adjust their behavior to the gender of the experimenter. The variation in the participants' behavior could be due to the fact that the experimenters are of different genders, but it could also be due to other characteristics, unrelated to gender, that differ between the two experimenters (e.g. attractiveness or tone of voice). As we increase the sample of experimenters of each gender, we reduce the risk that characteristics unrelated to gender differ systematically between the female and male experimenters. Thus, when employing ten experimenters of each gender, in contrast to one, we come closer to isolating the effect of the gender of the experimenter.

Furthermore, we employ a slightly different task than Small et al. (2007). They use the word game Boggle which is less well known in Sweden than in the United States. We employ a word puzzle in order to use a task as similar as possible to Boggle, but familiar to the participants of our study. Another difference is that Small et al. (2007) did not make sound recordings of the negotiations.

Finally we should add that the description of the experimental procedure in Small et al. (2007) is inevitably rather brief. We have received more detailed information on the procedure, as well as on the classification of observations, from the main author Deborah Small. Still, the complexity

of the experimental procedure makes it impossible to get a complete overview of every detail in Small et al.'s (2007) study. Thus, regarding certain details of the experimental design, it is possible that our study differs from theirs in ways that we are not aware of.

### 3.3 Statistical methods<sup>4</sup>

The dependent variable used to answer our research questions is binary; either a participant asks for more money, or he or she does not. Following Small et al. (2007), we use a non-parametric contingency Pearson chi-square test to analyze the experimental data. Pearson's chi-square test allows us to test for statistical independence of two outcomes, and thereby test if for instance the proportion of participants who initiated a negotiation differs between men and women. In line with Small et al. (2007) we also run a binary logistic regression model (also called a logit model) in which we gradually include different explanatory variables. We perform these regressions in order to control for the influence of other factors than gender, such as the participant's age and performance in the word puzzle. The logit model is a nonlinear regression model specifically designed for binary dependent variables. It uses the logistic cumulative distribution function and the coefficients are estimated by maximum likelihood. The model estimates the probability that the dependent variable is equal to one, given the values of the explanatory variables. That is, for our data it estimates the probability that a participant initiates a negotiation, given for example his or her gender, age and performance in the word puzzle.

The estimated probability that a participant initiates a negotiation is:

$$Pr(\textit{Negotiation} = 1 | X_{1i}, X_{2i}, \dots, X_{ki}) = \frac{1}{1 + e^{-Z_i}}$$

where :

*Negotiation* = 1: the participant initiates a negotiation

$X_{1i}, X_{2i}, \dots, X_{ki}$ : explanatory variables such as gender, age and performance in the word puzzle for participant  $i$

$$Z_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki}$$

$\beta_0, \beta_1, \dots, \beta_k$  : coefficients to be estimated.

The coefficients  $\beta_0, \beta_1, \dots, \beta_k$  are estimated in regressions (1)-(6) in section 4. Brief descriptions of all variables included in the regressions are presented in *Table 1*.

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<sup>4</sup> In this section we only mention the statistical tests that are directly related to our research questions. All other statistical tests that we perform are briefly presented in connection with the presentation of the results of these tests in section 4.

**Table 1: Description of variables**

<b>Variable name</b>	<b>Description</b>
<b>Negotiation</b>	Dummy variable that takes the value 1 if the participant asked for more money when offered the minimum amount of 30 SEK, and 0 otherwise.
<b>Gender participant</b>	Dummy variable that takes the value 1 if the participant is a woman, and 0 if the participant is a man.
<b>Age participant</b>	Age of the participant (in years), retrieved from the questionnaire.
<b>Actual performance</b>	Number of words the participant found in the word puzzle.
<b>Self-estimated performance</b>	The participant's estimation of how well he or she did on the word puzzle. In the questionnaire, we asked all participants to rate their performance on a 5-point scale, where 1 = <i>much worse than the average participant</i> and 5 = <i>much better than the average participant</i> .
<b>Södertörn University</b>	Dummy variable that takes the value 1 if the participant is recruited at Södertörn University, and 0 otherwise.
<b>Stockholm University</b>	Dummy variable that takes the value 1 if the participant is recruited at Stockholm University, and 0 otherwise.
<b>Dress Code</b>	Dummy variable that takes the value 1 if the experimenter is formally dressed in business wear, and 0 if the experimenter is casually dressed in jeans and t-shirt.
<b>Age experimenter</b>	The participant's estimation of the age of his or her experimenter (in years), retrieved from the questionnaire.
<b>Female/Female</b>	Dummy variable that takes the value 1 if the participant and the experimenter are both women, and 0 otherwise.
<b>Male/Male</b>	Dummy variable that takes the value 1 if the participant and the experimenter are both men, and 0 otherwise.
<b>Female/Male</b>	Dummy variable that takes the value 1 if the participant is a woman and the experimenter is a man, and 0 otherwise.

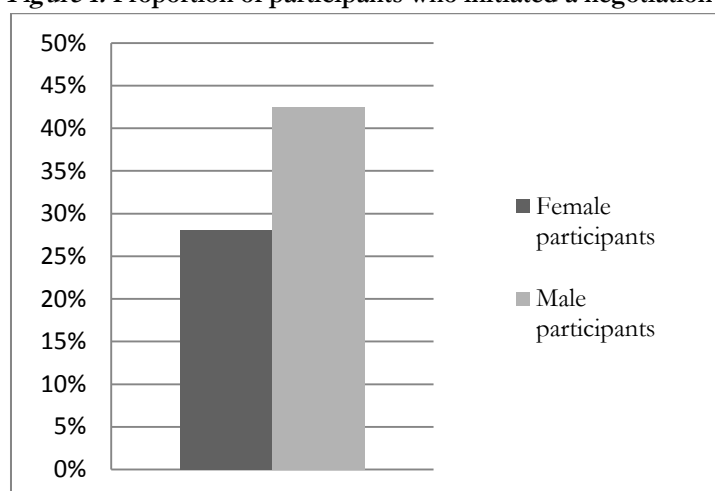
## 4 Results

In total, 204 participants took part in the experiment. However, two of these observations were dropped. One participant misinterpreted the instructions, whereupon the experimenter decided to terminate the session in advance. Another participant had met the experimenter before, which was revealed to us after the session.<sup>5</sup> The final sample thus consists of 202 observations (96 women and 106 men). In total, 36 percent of the participants initiated a negotiation for higher payment. The first research question is answered in section 4.1, and the second in section 4.2.

### 4.1 Gender differences in the propensity to initiate negotiations

In *Figure 1* the results are presented for each gender separately. Among the female participants, 28.1 percent initiated a negotiation, compared to 42.5 percent among the male participants. The estimated gender difference in the propensity to initiate a negotiation thus amounts to 14.3<sup>6</sup> percentage points.

**Figure 1: Proportion of participants who initiated a negotiation**



In order to examine whether the estimated gender difference is statistically different from zero, we conduct a chi-square test. The result suggests that the difference is significant ( $p < 0.05$ )<sup>7</sup> and we thus conclude that men are more likely than women to initiate a negotiation and that our first hypothesis is verified.

Furthermore, we estimate a logit model in which the binary dependent variable is assigned as 1 if the participant initiated a negotiation and 0 otherwise. This allows us to control for the location of the experiment, the participants' age and the participant's actual and self-estimated

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<sup>5</sup> Our results are not sensitive to the exclusion of these two observations. When we include them in the data, the results from the statistical tests and regressions remain the same.

<sup>6</sup> Calculation of gender difference:  $42.45 - 28.13 = 14.32$

<sup>7</sup> The detailed results of all statistical tests can be found in appendix C.

performance in the word puzzle.<sup>8</sup> The base case is a male participant at Studentpalatset. We run three different regressions and the results are presented in *Table 2*.

$$\text{Negotiation} = \beta_0 + \beta_1 \text{Gender participant} + \varepsilon \quad (1)$$

$$\text{Negotiation} = \beta_0 + \beta_1 \text{Gender participant} + \beta_2 \text{Age participant} + \beta_3 \text{Actual performance} + \beta_4 \text{Södertörn University} + \beta_5 \text{Stockholm University} + \varepsilon \quad (2)$$

$$\text{Negotiation} = \beta_0 + \beta_1 \text{Gender participant} + \beta_2 \text{Age participant} + \beta_3 \text{Actual performance} + \beta_4 \text{Self estimated performance} + \beta_5 \text{Södertörn University} + \beta_6 \text{Stockholm University} + \varepsilon \quad (3)$$

**Table 2: Binary logistic regressions for the initiation of negotiation**

Variable	(1) N = 202	(2) N = 202	(3) N=199
<b>Constant</b>			
B	-.304	-4.494***	-8.060***
SE	(.197)	(1.248)	(1.611)
<b>Gender participant (1=female, 0=male)</b>			
B	-.634**	-.667**	-.492
SE	(.300)	(0.317)	(.344)
dy/dx	-.143	-.149	-.107
<b>Age participant</b>			
B		.132***	.158***
SE		(0.043)	(.049)
dy/dx		.030	.035
<b>Actual performance</b>			
B		.045*	-.004
SE		(0.025)	(.029)
dy/dx		.010	-.001
<b>Self-estimated performance</b>			
B			1.219***
SE			(.254)
dy/dx			.267
<b>Södertörn University</b>			
B		.066	.104
SE		(0.400)	(.432)
dy/dx		.015	.023
<b>Stockholm University</b>			
B		.664*	.644
SE		(0.377)	(.411)
dy/dx		.154	.146

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

*The marginal effects are calculated at the mean values of all explanatory variables.*

The only explanatory variable included in the first regression is the gender of the participant. The coefficient of this variable is significantly different from zero ( $p < 0.05$ ) and negative, confirming the finding that women are less likely than men to initiate a negotiation. In the second regression, we control for the participant's age, the participant's actual performance in the word puzzle and the location of the experimental session. The significant gender effect remains in this regression. Moreover, the results suggest that the propensity to initiate a negotiation increases with age ( $p < 0.01$ ) and performance in the word puzzle ( $p < 0.10$ ). In addition, participants at Stockholm University are more likely ( $p < 0.10$ ) than participants at Studentpalatset to initiate a negotiation. Participants at Södertörn University are however equally likely as students at Studentpalatset to initiate a negotiation ( $p = 0.87$ ). In regression (3) we add a control for the participant's own estimation of his or her performance in the word puzzle. Three participants refrained from rating

<sup>8</sup> The descriptive statistics of all control variables can be found in appendix D.

their own performance, consequently the number of observations is 199. In regression (3) the coefficient of the gender of the participant is smaller than in regressions (1) and (2), and it is no longer significantly different from zero ( $p=0.15$ ). In addition, the coefficient on actual performance changes sign and is no longer significant ( $p=0.89$ ), while the coefficient on self-estimated performance is positive and highly significant ( $p<0.01$ ).<sup>9</sup>

The results from regression (3) indicate that a participant's self-estimated performance is an important determinant of his or her likelihood to initiate a negotiation. The fact that the gender effect declines when controlling for self-estimated performance suggests that male participants rate their performance higher than female participants. To analyze whether this is the case, we test for gender differences in self-estimated performance using both the student's t-test and the Mann-Whitney U-test.<sup>10</sup> The student's t-test indicates a significant gender difference ( $p<0.10$ ) where men show a higher self-estimated performance than women, while we cannot reject the null hypothesis of equal self-estimated performance when employing the Mann-Whitney U-test ( $p=0.15$ ). The results as to whether male participants rate their performance higher than female participants are thus contradictory, but there seems to be a tendency towards higher self-estimated performance for men than for women. We also test for gender differences in actual performance in the word puzzle. Neither the student's t-test ( $p=0.24$ ) nor the Mann-Whitney U-test ( $p=0.35$ ) can reject the hypothesis that the performance in the word puzzle is the same for male and female participants. Consequently, if men rate their performance higher than women do, this is because they have better confidence than women, not because they perform better. In order to further investigate this, we constructed a variable describing the participants' confidence. We recoded actual performance into a 5-point scale, making it directly comparable to the 5-point scale of self-estimated performance. We then calculated the confidence by subtracting the recoded actual performance from the self-estimated performance. Both the student's t-test and the Mann-Whitney U-test suggest that men's confidence is higher than that of women ( $p<0.10$ ).

Since the logit regression function is non-linear, the estimated coefficients do not have simple interpretations. We therefore calculate the marginal effects at the mean values of the explanatory variables. The marginal effects are presented in *Table 2* and denoted by  $dy/dx$ . When no control variables are included in the regression, the gender difference in the propensity to initiate a negotiation amounts to 14.3 percentage points. When control variables are included, we calculate the marginal effects at the mean values of the explanatory variables. The marginal effect of the gender of the participant in regression (2) amounts to 14.9 percentage points. In other words, a

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<sup>9</sup> To test for collinearity between the independent variables, we follow the protocol suggested by Menard (1995). The sizes of the unstandardized regression coefficients do not indicate that strong collinearity is present since they are all well below 2. In addition, we run linear versions of regressions (1)-(3) to obtain tolerance values. For all regressions, the lowest tolerance value exceeds 0.70, indicating no serious problem of collinearity.

<sup>10</sup> Throughout this section, we use both the Student's t-test and the Mann-Whitney U-test since Kolmogorov-Smirnov tests showed that none of the variables self-estimated performance, actual performance and confidence follows a normal distribution. The detailed test results of all t-tests and Mann-Whitney U-tests, as well as descriptive statistics of these variables divided by gender, can be found in appendix C.2. For the test statistics of the Kolmogorov-Smirnov tests, see appendix C.3.

male participant who is 24 years old and who found 17 words in the word puzzle is, on average, 14.9 percentage points more likely to initiate a negotiation than a female participant with the same characteristics. Finally, when also controlling for self-estimated performance, the marginal gender difference decreases to 10.7 percentage points. The marginal effect of self-estimated performance indicates that an increase in a participant's self-estimated performance by one unit increases, on average, the likelihood that the participant initiates a negotiation with 26.7 percentage points.

As previously mentioned, we pool all observations collected at different locations into one sample before analyzing the data. In order to verify that these observations are actually drawn from the same population, we first test if the gender effect on initiation of negotiation differs significantly between the participants recruited at Södertörn University, Stockholm University and Studentpalatset. We do this by adding one interaction term between gender participant and Södertörn University and one between gender participant and Stockholm University to regression (3). Both these interactions terms are highly insignificant ( $p=0.85$ ,  $p=0.81$ ) indicating that the gender difference in the propensity to initiate negotiations does not differ between the three locations. Furthermore, we estimate a new regression by adding interactions between all control variables and Södertörn University and Stockholm University, respectively. This regression is compared to regression (3) and a likelihood ratio test shows that we cannot reject the null hypothesis that the added interaction terms are without effect ( $p=0.97$ ).<sup>11</sup> This further validates the pooling of the observations collected at the different locations.

## 4.2 Gender composition effects on the propensity to initiate negotiations

The proportion of participants who initiated a negotiation is presented in *Table 4*, with the results separated into the four possible gender compositions of the negotiation dyad (female participant/female experimenter, female participant/male experimenter, male participant/female experimenter and male participant/male experimenter).

**Table 4: Proportion of participants who initiated a negotiation**

	Female experimenter	Male experimenter	Total
Female participant	22.7% (N=44)	32.7% (N=52)	28.1% (N=96)
Male participant	46.4% (N=56)	38.0% (N=50)	42.5% (N=106)
Total	36.0% (N=100)	35.3% (N=102)	35.6% (N=202)

We investigate the effect of the gender composition of the dyad from two perspectives. First, to answer research question 2 (a), we use the gender of the participant as starting point. Given the gender of the participant, we examine if he or she is equally likely to initiate a negotiation with a

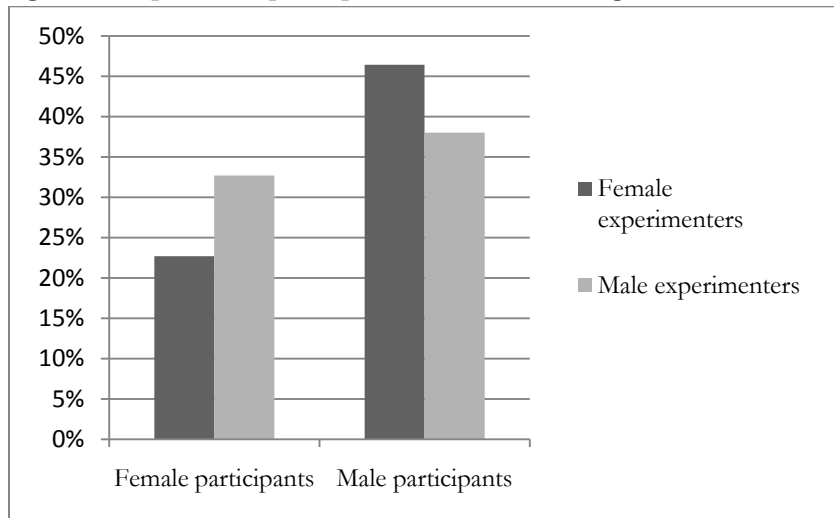
<sup>11</sup> See appendix C.4 for a specification of the new regression and the test statistics of the likelihood ratio test.

female experimenter as with a male experimenter. Second, to answer research question 2 (b), we use the gender of the experimenter as starting point. Given the gender of the experimenter, we examine whether female and male participants are equally likely to initiate a negotiation with him or her.

#### 4.2.1 Gender of participant as starting point

Figure 2 illustrates that 22.7 percent of the female participants who faced a female experimenter initiated a negotiation, compared to 32.7 percent of the female participants who faced a male experimenter. Moreover, among male participants facing a female experimenter 46.4 percent asked for more money, compared to 38.0 percent of male participants facing a male experimenter.

Figure 2: Proportion of participants who initiated a negotiation



The overall pattern is thus that both men and women seem to be more prone to initiate a negotiation with an experimenter of the opposite gender, than with an experimenter of the same gender. However, the chi-square tests in Table 5 show that the difference in the proportion of participants who initiated a negotiation between the two conditions (female or male experimenter) is not significant, neither for female nor for male participants ( $p=0.28$ ,  $p=0.38$ ). Thus we conclude that although both men’s and women’s likelihood to initiate a negotiation seems to be affected by the gender of the negotiation partner, this cannot be verified statistically.

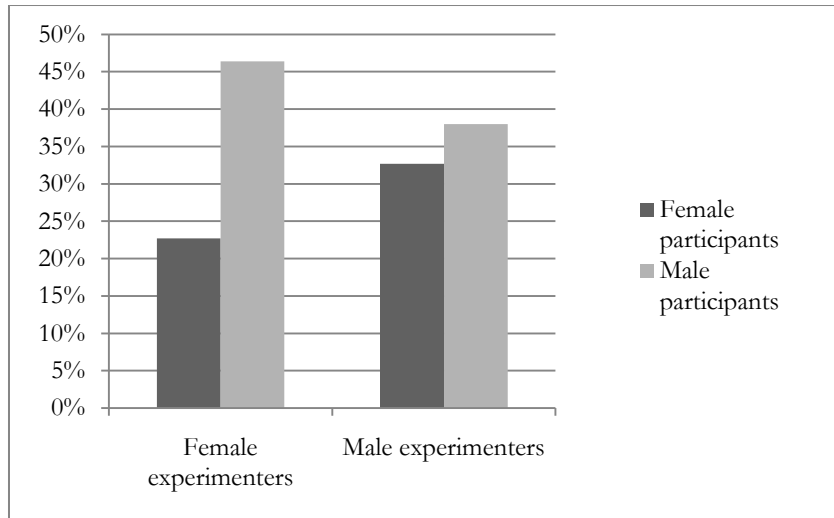
Table 5: Chi-square test for initiation of negotiation using gender of participant as starting point

	Female experimenter	Male experimenter	Pearson Chi-Square
Female participant	22.7% (N=44)	32.7% (N=52)	1.171 ( $p=.279$ )
Male participant	46.4% (N=56)	38.0% (N=50)	.768 ( $p=.381$ )

### 4.2.2 Gender of experimenter as starting point

In *Figure 3*, the participants are separated into two groups; those who faced a female experimenter and those who faced a male experimenter.

**Figure 3: Proportion of participants who initiated a negotiation**



When facing a female experimenter, only 22.7 percent of female participants, compared to 46.4 percent of male participants, initiated a negotiation. The chi-square test, presented in *Table 6*, show that the difference between these two proportions is significant ( $p < 0.05$ ). Thus, given that the experimenter is a woman, male participants are significantly more likely than female participants to ask for more money. When facing a male experimenter, 32.7 percent of female participants, compared to 38.0 percent of male participants, initiated a negotiation. The difference between these two proportions is not significant ( $p = 0.58$ ). Thus we conclude that the gender difference, which was observed when the analysis was conducted at the individual level, is amplified when the experimenter is a woman, whereas it disappears when the experimenter is a man.

**Table 6: Chi-square test for initiation of negotiation using gender of experimenter as starting point**

	Female experimenter	Male experimenter
Female participant	22.7% (N=44)	32.7% (N=52)
Male participant	46.4% (N=56)	38.0% (N=50)
Pearson Chi-Square	6.008 ( $p = .014$ )	.314 ( $p = .575$ )

### 4.2.3 Regressions

In order to control for other variables than gender, we estimate a logit model with a binary dependent variable taking the value 1 if the participant initiated a negotiation and 0 otherwise. We run three different versions of this model and the results are presented in *Table 7*. Since we examine gender composition effects, we now define the base case at the dyadic rather than at the individual level. Hence, the base case in these regressions is a male participant facing a casually

dressed female experimenter at Studentpalatset. The gender composition effects are investigated through three dummy variables (male participant/male experimenter, female participant/male experimenter and female participant/female experimenter), representing three of the four possible gender compositions of the negotiation dyad.

$$\text{Negotiation} = \beta_0 + \beta_1 \text{Male/Male} + \beta_2 \text{Female/Male} + \beta_3 \text{Female/Female} + \varepsilon \quad (4)$$

$$\text{Negotiation} = \beta_0 + \beta_1 \text{Male/Male} + \beta_2 \text{Female/Male} + \beta_3 \text{Female/Female} + \beta_4 \text{Age participant} + \beta_5 \text{Actual performance} + \beta_6 \text{Södertörn University} + \beta_7 \text{Stockholm University} + \beta_8 \text{Dress code} + \beta_9 \text{Age experimenter} + \varepsilon \quad (5)$$

$$\text{Negotiation} = \beta_0 + \beta_1 \text{Male/Male} + \beta_2 \text{Female/Male} + \beta_3 \text{Female/Female} + \beta_4 \text{Age participant} + \beta_5 \text{Actual performance} + \beta_6 \text{Self estimated performance} + \beta_7 \text{Södertörn University} + \beta_8 \text{Stockholm University} + \beta_9 \text{Dress code} + \beta_{10} \text{Age experimenter} + \varepsilon \quad (6)$$

**Table 7: Binary logistic regressions for the initiation of negotiation**

	(4)	(5)	(6)
Variable	N = 202	N = 202	N = 199
Constant			
B	-.143	-6.675***	-10.196***
SE	(.268)	(2.103)	(2.469)
Male/Male			
B	-.346	-.394	-.535
SE	(.396)	(.418)	(.463)
dy/dx	-.084	-.095	-.124
Female/Male			
B	-.579	-.584	-.421
SE	(.399)	(.423)	(.463)
dy/dx	-.137	-.138	-.099
Female/Female			
B	-1.081**	-1.244**	-1.166**
SE	(.449)	(.483)	(.524)
dy/dx	-.237	-.263	-.241
Age participant			
B		.131***	.163***
SE		(.045)	(.051)
dy/dx		.032	.040
Actual performance			
B		.044*	-.006
SE		(.026)	(.029)
dy/dx		.011	-.002
Self-estimated performance			
B			1.254***
SE			(.262)
dy/dx			.308
Södertörn University			
B		.043	.092
SE		(.410)	(.441)
dy/dx		.011	.023
Stockholm University			
B		.656*	.651
SE		(.385)	(.419)
dy/dx		.163	.161
Dress code			
B		.317	.237
SE		(.316)	(.346)
dy/dx		.079	.058
Age experimenter			
B		.091	.083
SE		(.075)	(.078)
dy/dx		.023	.020

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

*The marginal effects are calculated at the mean values of all explanatory variables except Male/Male, Female/Male and Female/Female that are set to 0.*

In regression (4) no control variables are included. The only dyad in which the proportion of participants who initiate a negotiation is significantly different from that of the male/female dyad is the female/female dyad ( $p < 0.05$ ). This is not surprising since male participants facing a female experimenter were most likely to initiate a negotiation, whereas female participants facing a female experimenter were least likely to initiate a negotiation. In regressions (5) and (6), the coefficient for the female/female dyad is even larger and remains significant ( $p < 0.05$ ). In order to see if the three coefficients on negotiation dyads are significantly different from each other, we perform t-tests testing the hypotheses  $\beta_1 = \beta_2$ ,  $\beta_1 = \beta_3$  and  $\beta_2 = \beta_3$ . This is done for each of the three models (4)-(6).<sup>12</sup> The only case in which the test indicates that we can reject the hypothesis that the coefficients are of the same size is when testing if  $\beta_1 = \beta_3$  in regression (5) ( $p < 0.10$ ). For all other t-tests comparing coefficient sizes, the p-value exceeds 10 percent. Moreover, regressions (5) and (6) confirm the results from regressions (2) and (3). That is, the likelihood that a participant initiates a negotiation increases with the participant's age ( $p < 0.01$ ) and self-estimated performance ( $p < 0.01$ ). However, neither in regression (5) nor in regression (6) is the likelihood that a participant initiates a negotiation influenced by the experimenter's clothes ( $p = 0.32$ ,  $p = 0.49$ ). The same is true for the participant's estimation of the experimenter's age ( $p = 0.22$ ,  $p = 0.29$ ).<sup>13</sup>

The marginal effects in regression (4), presented in *Table 7*, verify the previously mentioned dyadic effects. For instance, on average, the likelihood of an initiation of negotiation is 23.7 percentage points lower in the case of a female participant negotiating with a female experimenter compared to that of a male participant negotiating with a female experimenter. This marginal effect remains fairly stable when we add the control variables in regressions (5) and (6).

### 4.3 Sensitivity Analyses

In order to evaluate the robustness of our model, we conduct a series of sensitivity analyses. First, we exclude four observations for which the sound recordings reveal that the experimenters did not act in accordance with the instructions. Neither the results from the chi-square tests nor the conclusions drawn from regressions (1)-(6) are affected by this omission.<sup>14</sup> However, we only have access to recordings from 178 out of 202 observations. It is thus possible that not all experimenter mistakes are detected. Nevertheless, given that the experimenters failed to follow the script in only four out of 178 recordings, we have reason to believe that the number of undetected experimenter mistakes is small. Therefore, we do not think that the potential undetected experimenter mistakes would affect our results in any significant way.

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<sup>12</sup> The test statistics and p-values for the t-tests comparing regression coefficients are reported in appendix C.5.

<sup>13</sup> To test for collinearity between the independent variables in regressions (4)-(6) we follow the same procedure as for regressions (1)-(3). Neither the sizes of the regression coefficients (all are well below 2) nor the tolerance values (all are above 0.60) indicate that we have a serious problem of collinearity.

<sup>14</sup> The regression results from all sensitivity analyses can be found in appendix E.

Furthermore, five participants stated in the questionnaire that they had heard about the experiment before participating, suggesting that they might have received useful hints on how to obtain a high compensation. However, the removal of these observations does not affect neither the conclusions from the chi-square tests nor from the regressions. Moreover, five participants thought that the purpose of the experiment was somehow related to gender and negotiation. Since the insight into the purpose of the experiment might have influenced these participants' behavior, we perform the chi-square tests and the regressions without them. Again, no conclusions are changed. Thus, the fact that some participants had heard about the experiment before participating, and that some had understood the purpose of the experiment, does not seem to have a considerable impact on our results. Finally, we remove all of the above mentioned observations at the same time. Yet again, neither the chi-square tests nor the regression results change any of our conclusions.

## 5 Discussion

### 5.1 Analysis of the results

In accordance with Small et al. (2007) we find that men are more prone than women to initiate negotiations. However, the estimated gender difference in Small et al.'s (2007) study is three times as large as in our study (42 compared to 14 percentage points). The share of male participants who initiated a negotiation is higher in Small et al.'s (2007) study than in ours (59 compared to 43 percent), while the reverse pattern is true for the female participants (17 compared to 28 percent). We can only speculate on the explanation for why the gender gap is considerably larger in Small et al.'s (2007) study than in ours. Perhaps it can be attributed to the fact that Sweden is a more gender equal country than the United States.<sup>15</sup> The finding that the gender gap is smaller in Sweden than in the United States is not entirely surprising as previous field studies report that Swedish men and women are equally likely to apply for jobs involving individual wage bargaining (Säve-Söderbergh, 2007), while a significantly higher share of American men than American women try to improve their initial wage offer by negotiating (Babcock and Laschever, 2003). Moreover, a recent field experiment on gender differences in competitiveness among Swedish children shows that boys and girls are equally competitive in running competitions (Dreber, von Essen and Ranehill, 2009). When Israeli children compete in running, boys do however seem to be more competitive than girls (Gneezy and Rustichini, 2004).

The estimated gender difference in initiation of negotiation is robust when we control for the participants' age and performance in the word puzzle. However, when we also add their self-estimated performance to the regression, the gender effect decreases with about one third and is no longer significant. Conditional on actual performance, participants who are more confident about their relative performance are more likely to initiate a negotiation. Thus, our results suggest that one potential explanation for the observed gender difference in initiation of negotiation is that men are more confident than women. This finding is in line with the results of Niederle and Vesterlund (2007), who find that about one third of the gender gap in competitiveness can be attributed to men being more overconfident than women.

Furthermore, by examining the role of the gender composition of the negotiation dyad we contribute to the growing literature on how gender differences vary across contexts. We show that a significant difference between men's and women's propensity to initiate negotiations only appears when the negotiation partner is a woman. With a female experimenter, the gender difference amounts to 24 percentage points. With a male experimenter, it is only five percentage points and no longer significant. Consequently, it seems as if the gender difference of 14 percentage points that we obtained when we did not take the gender of the experimenter into account is driven by the fact that women are much less likely than men to initiate a negotiation with a female negotiation partner. This finding indicates that the gender of the negotiation partner is a crucial factor influencing the size of the gender gap in the propensity to initiate negotiations. In other words, gender differences in initiation of negotiation are better understood

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<sup>15</sup> In the The Global Gender Gap Report 2008 (Hausmann, Tyson and Zahidi, 2008) Sweden ranked third, and the United States 27<sup>th</sup>.

at the dyadic than at the individual level. However, the conclusion that the gender gap is large and significant only when the experimenter is female is completely contrary to the findings of Bowles et al. (2007). They find that a significant gender difference is present when the negotiation partner is a man, but that it disappears when the negotiation partner is a woman. There are considerable differences between our study and that of Bowles et al. (2007), though. For instance, in their study the negotiation decision is merely hypothetical since the participants do not meet their negotiation partner face-to-face, and the payoff is not dependent on whether they negotiate or not.

Moreover, when analyzing our results using the gender of the participant as starting point, both men and women seem to be more likely to initiate a negotiation with an experimenter of the opposite gender than with an experimenter of the same gender as themselves. Among the female participants who faced a female experimenter, 23 percent initiated a negotiation, in comparison to 33 percent among those who faced a male experimenter. For the male participants, the corresponding numbers amount to 46 and 38 percent, respectively. The tendency of a higher propensity to initiate negotiations with an experimenter of the opposite gender is however not significant neither for female nor for male participants. Bowles and Flynn (2009) obtain somewhat similar results. The mean persistence of both female and male participants in their study is higher with a negotiation partner of the opposite gender. This effect is however only significant for the female participants, whereupon the authors conclude that male participants do not adapt their behavior to the gender of the negotiation partner. It should also be noted that Small et al. (2007) do not find the same tendency as we do regarding the influence of the gender of the experimenter. The results from their study rather suggest a tendency in the opposite direction. That is, both men and women are more likely to initiate a negotiation with an experimenter of the same gender as themselves than with an experimenter of the opposite gender. However, as previously mentioned, our sample of experimenters of each gender is considerably larger than that of Small et al. (2007) since we, in contrast to them, specifically designed our experiment to test for gender composition effects.

In summary our main finding regarding the role of the gender composition of the negotiation dyad is that men are significantly more likely than women to initiate a negotiation when the experimenter is a woman, but not when the experimenter is a man. Moreover, the underlying reason for this result is that both men and women seem to be more likely to initiate a negotiation with an experimenter of the opposite gender, than with an experimenter of the same gender.

Although the purpose of this study is not to find the cause of the observed behavioral patterns, we will briefly outline some potential explanations. One candidate explanation for women's tendency to be more prone to initiate a negotiation with a man than with a woman, put forward by Bowles and Flynn (2009), is that girls learn already during their childhood that they have to play tougher with boys than with girls in order to get what they want. A slightly different explanation to our results can be found in a study by Kray and Locke (2008), investigating the benefits of using flirtation in negotiations. It has been shown that women face a larger trade-off than men between being assertive in a negotiation and being perceived as likeable. Women who are demanding in a negotiation are therefore perceived as less likeable than equally demanding men, which gives rise to a gender difference in outcomes from the negotiation. In other words,

even when there is no gender difference in assertiveness, women are worse off than men in the negotiation. By adopting a flirtatious negotiation style women can however mitigate the trade-off between assertiveness and likeability. That is, if women flirt at the bargaining table they can be demanding without being perceived as unlikeable. Consequently, the gender difference in outcome from the negotiation is reduced. Applying this reasoning to our results would thus suggest that the female participants were more prone to initiate a negotiation with a male than with a female experimenter since the male experimenter enabled them to make use of the mediating effect of flirtatiousness while a female experimenter did not.

Regarding men's tendency to be more prone to initiate negotiations with women than with men, evolutionary approaches to psychology might suggest one potential explanation. For instance, Griskevicius, Sundie, Miller, Tybur, Cialdini and Kenrick (2007) find that when primed to think about romantic partners, men's willingness to display dominance increases. If a male participant who faced a female experimenter consciously or subconsciously started to consider the experimenter as a potential mate, one might therefore expect the participant to strive to appear as more dominant than when facing a male experimenter. Since initiating a negotiation can be regarded as a manifestation of a dominant behavior, this effect might thus explain why male participants tended to be more prone to initiate a negotiation with female than with male experimenters.

## **5.2 Validity of the study**

Throughout the study, we made several efforts to keep the internal validity high and avoid systematic biases in the data. We randomized the dress code of the experimenters and standardized their behavior through detailed instructions and practice. During each session, half of the participants were recruited by a male recruiter, and half of the participants were recruited by a female recruiter. The participants were also randomly assigned to a male or a female experimenter. We instructed the recruiters to select students as randomly as possible when asking potential participants to take part in the experiment. However, since the participation was voluntary it is possible that the sample suffers from a self-selection bias, and hence that the participating students differ systematically from the average student regarding certain personality traits. It is also possible that the variable self-estimated performance is somewhat problematic. In order to avoid contamination of the dependent variable, we did not ask the participants to fill out the questionnaire until after the negotiation had taken place. Consequently, the participants answered the question on how well they believed they had done on the word puzzle after they had received their payment. It is possible that the participants who received more money than the minimum payment were led to believe that they had done well in the word puzzle, and hence reported higher self-estimated performance than the participants who received the minimum payment. Since the only participants who received more money were those who initiated a negotiation, we have a potential problem of reverse causality. That is, we cannot say for certain whether a high self-estimated performance leads to a high likelihood to initiate a negotiation, or if the initiation of negotiation leads to a high self-estimated performance.

Moreover, it is implausible that our regressions include all factors that influence the propensity to initiate negotiations. If any of the omitted variables differs systematically between men and women, the coefficient on participant gender and the coefficients on gender composition will be

biased. Whether this bias poses a problem depends on the objective of the study. If the purpose were to find a stable causal relationship between the sex of a participant and his or her propensity to initiate a negotiation, the omitted variable bias would be highly problematic. However, since our main purpose is to investigate if the propensity to initiate negotiations differs between the genders, the bias does not constitute a major problem. We confine ourselves to concluding that there is a gender difference in initiation of negotiation, and that it is highly probable that this difference is at least partly driven by systematic gender differences in personality traits we do not control for.

To what extent our results are generalizable to the Swedish labor market, depends on the external validity of the study. In order to make the laboratory setting as similar as possible to a real wage negotiation situation, we chose to employ an experimental design in which participants have to make a decision whether to negotiate or not facing their negotiation partner. We believe that this design better captures a real world negotiation than a design in which participants are simply asked how they would act in a given situation. Moreover, the fact that the participants are paid in real money and that their actual payoff is dependent on their decision whether to negotiate or not further increases the external validity of our study.

However, in the majority of real wage negotiations the employee and the manager setting the wages meet regularly. This feature is not captured in our experiment. In a real wage negotiation one might also expect the employee to have at least some insight into his or her performance relative to other employees. Nevertheless, in our experiment the participants did not get any information on their performance in the word puzzle relative to other participants. These factors might thus reduce the external validity of our experiment. Also, one might question to what extent a negotiation over a one-time payment of a maximum of 100 SEK is representative of a negotiation over a person's largest source of income, which will be fixed for a long time period after the negotiation. Moreover, the participants in our study are all university students, living in Stockholm, with an average age of 24. It is therefore not obvious that our results can be generalized to people who are active on the labor market, of different age and with varying geographical as well as educational backgrounds. In addition, our experimenters are not completely representative of the average manager. For instance, the average experimenter age is 24, whereas one can assume that managers holding wage negotiations tend to be considerably older.

The external validity of our study can also be criticized from other points of view. In order to isolate the effect of the experimenters' gender, we standardized their behavior. However, prior research has shown that the behavior of men and women in negotiations differ (Bowles et al., 2007), suggesting that male and female managers behave differently in real wage negotiations. One therefore has to be careful in generalizing our findings to the labor market. Moreover, in our study, all participants who initiated a negotiation received more money. An adequate policy measure to reduce the gender wage gap would thus be to encourage women to negotiate more. However, in reality, women might be penalized for initiating a negotiation since the behavior associated with assertiveness in negotiations contrasts with prescriptive feminine stereotypes (Bowles et al., 2007; Rudman, 1998). Consequently, since it is not certain that women will gain

from initiating more negotiations, one might question if policy measures encouraging women to initiate more negotiations always are appropriate.

### **5.3 Theoretical and practical implications**

Our study contributes to the growing literature on gender and negotiation by verifying the findings of previous research, namely that women are less prone than men to initiate negotiations. In addition, our results are clearly in line with the second generation of research on gender differences and negotiation, illustrating the importance of viewing these gender differences as non-static and contextual. Previous research has pointed to the importance of taking situational factors such as the situational ambiguity, the salience of gender stereotypes and the nature of the negotiation task into consideration. Our findings suggest that the gender of the negotiation partner is an additional factor that needs to be considered. In a broader perspective, our study indicates that in all types of experiments one has to be careful in interpreting observed gender differences as stable differences in behavior between men and women. Instead, the gender composition of the dyads or groups of people participating in the experiment must be carefully considered and compared to other studies.

Our findings may also have practical implications. At first glance, it may seem as if our results suggest a possible explanation for the unexplained gender wage gap. If men are more prone than women to initiate wage negotiations, and if employees who negotiate obtain a higher wage than those who do not, the gender difference in the propensity to initiate negotiations would create a wedge between men's and women's wages. However, most managers today are men<sup>16</sup>, but we only find a significant gender difference in initiation of negotiation when the experimenter is a woman. Consequently, the gender difference in the propensity to initiate negotiations probably has a smaller influence on the unexplained gender wage gap than one might initially think. Moreover, our findings suggest that gender quotas, endorsing the appointment of women to managerial positions, may actually have certain negative effects on gender equality. Since women seem to be more reluctant to negotiate with women than with men, a higher proportion of female managers might actually reduce the propensity of female employees to initiate negotiations for higher wages. However, it is important to point out that the overall effect of gender quotas on the gender equality on the labor market might very well be positive. Furthermore, our results indicate that the employees who ask for a higher wage or a promotion might not be the employees who actually perform the best. In our study, the average number of words found by female participants is slightly higher than that of male participants. Even so, the male participants were significantly more likely to ask for a larger compensation. Given that employees who are prone to initiate negotiations are promoted more quickly than other employees (Greig, 2008), this discrepancy between performance and initiation of negotiation might lead to efficiency losses. For instance, assume that a medium performing male employee asks for a promotion, while a high performing female employee does not. If this results in the firm promoting the male employee, the firm makes a suboptimal decision since a medium performing employee is promoted while a high performing employee is not.

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<sup>16</sup> In 2004, 72 percent of all managerial positions in Sweden were held by men. This gender gap was largest in the private sector (Statistics Sweden, 2006).

#### **5.4 Future research**

It would be of interest to extend our sample to see if we can statistically verify the tendency of both genders to be more likely to initiate a negotiation with an experimenter of the opposite gender. Furthermore, future research should extend the experiment to include other participant groups than university students in Stockholm. This could give an idea of how stable our results are across samples of participants from different generations and ethnic groups and with different occupations and socioeconomic backgrounds.

The purpose of our study was to detect gender differences and gender composition effects in the propensity to initiate negotiations, not to find the cause of these effects. Hence, our experiment was not designed to find explanations for the observed behavioral differences. One idea for future research is to modify the experimental design to make it possible to identify and measure the impact of candidate explanations for the observed gender differences and gender composition effects. Since we find that participants tend to be more prone to initiate negotiations with an experimenter of the opposite gender, it would be of particular interest to investigate how the attractiveness of the experimenter influences the participant's decision to negotiate. This could easily be done with our data by adding a variable for the experimenters' attractiveness. Previous studies show that the attractiveness of the opponent can indeed influence the behavior of the participants in experimental settings (e.g. Solnick and Schweitzer, 1999).

In addition to further experimental research on gender and the propensity to initiate negotiations, we encourage more field studies on this topic. For instance, the magnitude of the gender differences may vary between private and public organizations, or between organizations with different hierarchical structures.

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## Appendix A. Instructions for the word puzzle

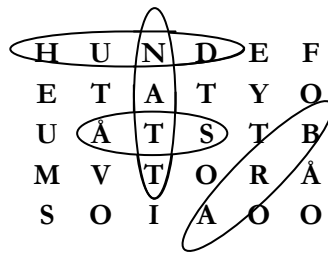
Welcome and thank you for participating in this study. The study will take approximately 15 minutes and your task is to find words in a word puzzle.

### INSTRUCTIONS

#### 1) Read the following description of the word puzzle:

The object is to find as many words as possible. You can form words from adjoining letters in any direction: horizontally, vertically, diagonally, and forwards and backwards. You should encircle the words you find and write them down in the list below the word puzzle.

Example:



WORDS FOUND:

*bund*

---

*natt*

---

*stå*

---

*bra*

---

---

---

---

2) A word puzzle is enclosed inside this envelope. When you have understood what to do, you can open the envelope and start searching for words. You will have 3 minutes to find as many words as you can. Do not forget that the words you find should be put down in the list below the word puzzle.



## Appendix C. Detailed results of statistical tests

### C.1 Chi-square tests for gender differences in initiation of negotiation

Sample	Testing for difference between:	N (negotiations/not negotiations)	df	$\chi^2$	p
All participants	Male and female participants	N <sub>total</sub> =202 (72/130) N <sub>Male</sub> participants=106 (45/61) N <sub>Female</sub> participants=96 (27/69)	1	4.508	0.034
Female participants	Male and female experimenters	N <sub>total</sub> =96 (27/69) N <sub>Male</sub> experimenters=52 (17/35) N <sub>Female</sub> experimenters=44 (10/34)	1	1.171	0.279
Male participants	Male and female experimenters	N <sub>total</sub> =106 (45/61) N <sub>Male</sub> experimenters=50 (19/31) N <sub>Female</sub> experimenters=56 (26/30)	1	0.768	0.381
Female experimenters	Male and female participants	N <sub>total</sub> =100 (36/64) N <sub>Male</sub> participants=56 (26/30) N <sub>Female</sub> participants=44 (10/34)	1	6.008	0.014
Male experimenters	Male and female participants	N <sub>total</sub> =102 (36/66) N <sub>Male</sub> participants=50 (19/31) N <sub>Female</sub> participants=52 (17/35)	1	0.314	0.575

### C.2 Student's t-test and Mann-Whitney U-test for gender difference in actual performance, self-estimated performance and confidence

		Actual performance	Self-estimated performance	Confidence
Men	n	106	103	103
	mean	16.38	3.06	0.117
	SD	6.734	0.873	1.451
Women	n	96	96	96
	mean	17.42	2.86	-0.219
	SD	5.771	0.749	1.393
t-test for equality of means (equal variance assumed)	df	200	197	197
	t	1.181	1.675	1.661
	p	0.239	0.096	0.098
Mann-Whitney U-test	Mann-Whitney U	4701.000	4405.500	4275.500
	p	0.350	0.149	0.093

### C.3 Kolmogorov-Smirnov test of normality (with Lilliefors significance correction)

	Actual performance	Self-estimated performance	Confidence
Kolmogorov-Smirnov statistic	0.072	0.262	0.165
df	202	199	199
p	0.014	0.000	0.000

#### C.4 Likelihood ratio test

LR=2.348, df=8, p=0.9684

##### *Reduced model (model 3):*

Negotiation =

$\beta_0 + \beta_1$ Gender participant +  $\beta_2$ Age participant +  $\beta_3$ Actual performance +  $\beta_4$ Self estimated performance +  $\beta_5$ Södertörn University +  $\beta_6$ Stockholm University +  $\varepsilon$

-2 Log likelihood = 210.254

##### *Full model:*

Negotiation =

$\beta_0 + \beta_1$ Gender participant +  $\beta_2$ Age participant +  $\beta_3$ Actual performance +  $\beta_4$ Self estimated performance +  $\beta_5$ Södertörn University +  $\beta_6$ Stockholm University +  $\beta_7$ (Södertörn University)(Gender participant) +  $\beta_8$ (Södertörn University)(Age participant) +  $\beta_9$ (Södertörn University)(Actual performance) +  $\beta_{10}$ (Södertörn University)(Self estimated performance) +  $\beta_{11}$ (Stockholm University)(Gender participant) +  $\beta_{12}$ (Stockholm University)(Age participant) +  $\beta_{13}$ (Stockholm University)(Actual performance) +  $\beta_{14}$ (Stockholm University)(Self estimated performance) +  $\varepsilon$

-2 Log likelihood = 207.906

#### C.5 Student's t-test for equality of the dyad regression coefficients

	Regression (4)	Regression (5)	Regression (6)
$\beta_1 = \beta_2$	t=0.560 p=0.576	t=0.432 p=0.667	t=-0.235 p=0.814
$\beta_1 = \beta_3$	t=1.586 p=0.114	t=1.725 p=0.086	t=1.180 p=0.240
$\beta_2 = \beta_3$	t=1.077 p=0.283	t=1.324 p=0.187	t=1.381 p=0.169
N	202	202	199
k	4	10	11
df	198	192	188
$\hat{\beta}_1$	-0.346	-0.394	-0.535
$\hat{\beta}_2$	-0.579	-0.584	-0.421
$\hat{\beta}_3$	-1.081	-1.244	-1.166
$\widehat{Var}(\hat{\beta}_1)$	0.157	0.175	0.215
$\widehat{Var}(\hat{\beta}_2)$	0.159	0.179	0.214
$\widehat{Var}(\hat{\beta}_3)$	0.201	0.233	0.274
$\widehat{Cov}(\hat{\beta}_1, \hat{\beta}_2)$	0.072	0.081	0.097
$\widehat{Cov}(\hat{\beta}_1, \hat{\beta}_3)$	0.072	0.083	0.101
$\widehat{Cov}(\hat{\beta}_2, \hat{\beta}_3)$	0.072	0.082	0.099

## Appendix D. Descriptive statistics of control variables

Variable name	Number of observations	Minimum	Maximum	Mean	Standard deviation
Age participant	202	18	41	24.11	3.84
Actual performance	202	2	36	16.87	6.25
Self-estimated performance	199	1	5	2.96	0,82
Södertörn University	202	0	1	0,30	0,46
Stockholm University	202	0	1	0,30	0,46
Dress code	202	0	1	0,50	0,50
Age experimenter	202	20	42	24.93	2.21

## Appendix E. Sensitivity analyses

### E.1 Removal of experimenter mistakes

#### Binary logistic regressions for the initiation of negotiation

Variable	(1) N = 198	(2) N = 198	(3) N = 195
Constant			
B	<b>-0.293</b>	<b>-4.424***</b>	<b>-7.973***</b>
SE	(.199)	(1.250)	(1.615)
Gender participant (1=female, 0=male)			
B	<b>-0.683**</b>	<b>-0.708**</b>	<b>-0.552</b>
SE	(.304)	(.320)	(.348)
Age participant			
B		<b>.132***</b>	<b>.158***</b>
SE		(.043)	(.049)
Actual performance			
B		<b>.041</b>	<b>-0.007</b>
SE		(.026)	(.029)
Self-estimated performance			
B			<b>1.211***</b>
SE			(.254)
Södertörn University			
B		<b>.099</b>	<b>.123</b>
SE		(.403)	(.436)
Stockholm University			
B		<b>.626</b>	<b>.580</b>
SE		(.381)	(.415)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

#### Binary logistic regressions for the initiation of negotiation

Variable	(4) N = 198	(5) N = 198	(6) N = 195
Constant			
B	<b>-0.074</b>	<b>-6.452***</b>	<b>-9.918***</b>
SE	(.272)	(2.134)	(2.503)
Male/Male			
B	<b>-0.470</b>	<b>-0.487</b>	<b>-0.634</b>
SE	(.402)	(.424)	(.471)
Female/Male			
B	<b>-0.709*</b>	<b>-0.687</b>	<b>-0.551</b>
SE	(.407)	(.430)	(.471)
Female/Female			
B	<b>-1.150**</b>	<b>-1.281***</b>	<b>-1.218**</b>
SE	(.451)	(.483)	(.525)
Age participant			
B		<b>.131***</b>	<b>.164***</b>
SE		(.045)	(.051)
Actual performance			
B		<b>.040</b>	<b>-0.009</b>
SE		(.026)	(.030)
Self-estimated performance			
B			<b>1.246***</b>
SE			(.262)
Södertörn University			
B		<b>.075</b>	<b>.113</b>
SE		(.414)	(.447)
Stockholm University			
B		<b>.625</b>	<b>.595</b>
SE		(.389)	(.424)
Dress code			
B		<b>.292</b>	<b>.210</b>
SE		(.320)	(.351)
Age experimenter			
B		<b>.087</b>	<b>.077</b>
SE		(.076)	(.080)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

## E.2 Removal of the participants who had heard about the experiment prior to participating

### Binary logistic regressions for the initiation of negotiation

Variable	(1)	(2)	(3)
	N = 197	N = 197	N = 194
Constant			
B	-.271	-4.473***	-8.059***
SE	(.198)	(1.254)	(1.623)
Gender participant (1=female, 0=male)			
B	-.623**	-.647**	-.499
SE	(.302)	(.320)	(.348)
Age participant			
B		.130***	.156***
SE		(.044)	(.050)
Actual performance			
B		.048*	.002
SE		(.026)	(.029)
Self-estimated performance			
B			1.213***
SE			(.255)
Södertörn University			
B		.097	.156
SE		(.401)	(.434)
Stockholm University			
B		.664*	.624
SE		(.378)	(.412)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

### Binary logistic regressions for the initiation of negotiation

Variable	(4)	(5)	(6)
	N = 197	N = 197	N = 194
Constant			
B	-.109	-6.159***	-9.706***
SE	(.270)	(2.108)	(2.477)
Male/Male			
B	-.348	-.397	-.526
SE	(.399)	(.420)	(.467)
Female/Male			
B	-.584	-.587	-.451
SE	(.401)	(.425)	(.464)
Female/Female			
B	-1.054**	-1.192**	-1.129**
SE	(.452)	(.485)	(.526)
Age participant			
B		.129***	.161***
SE		(.045)	(.051)
Actual performance			
B		.046*	-.001
SE		(.026)	(.030)
Self-estimated performance			
B			1.243***
SE			(.262)
Södertörn University			
B		.079	.147
SE		(.411)	(.445)
Stockholm University			
B		.668*	.643
SE		(.385)	(.419)
Dress code			
B		.271	.188
SE		(.317)	(.347)
Age experimenter			
B		.071	.065
SE		(.075)	(.079)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

### E.3 Removal of the participants who thought that the purpose of the experiment was related to gender and negotiation

#### Binary logistic regressions for the initiation of negotiation

Variable	(1) N = 197	(2) N = 197	(3) N = 194
Constant			
B	-.310	-4.277***	-7.739***
SE	(.198)	(1.255)	(1.610)
Gender participant (1=female, 0=male)			
B	-.636**	-.643**	-.492
SE	(.305)	(.319)	(.347)
Age participant			
B		.128***	.152***
SE		(.043)	(.049)
Actual performance			
B		.040	-.011
SE		(.026)	(.029)
Self-estimated performance			
B			1.212***
SE			(.256)
Södertörn University			
B		.028	.073
SE		(.400)	(.433)
Stockholm University			
B		.553	.531
SE		(.381)	(.415)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

#### Binary logistic regressions for the initiation of negotiation

Variable	(4) N = 197	(5) N = 197	(6) N = 194
Constant			
B	-.109	-6.567***	-10.041***
SE	(.270)	(2.110)	(2.479)
Male/Male			
B	-.434	-.479	-.590
SE	(.401)	(.422)	(.467)
Female/Male			
B	-.615	-.592	-.453
SE	(.407)	(.430)	(.470)
Female/Female			
B	-1.115***	-1.259***	-1.164**
SE	(.450)	(.482)	(.520)
Age participant			
B		.125***	.155***
SE		(.045)	(.051)
Actual performance			
B		.040	-.013
SE		(.027)	(.030)
Self-estimated performance			
B			1.239***
SE			(.263)
Södertörn University			
B		-.007	.049
SE		(.413)	(.444)
Stockholm University			
B		.521	.514
SE		(.391)	(.426)
Dress code			
B		.395	.299
SE		(.320)	(.349)
Age experimenter			
B		.096	.092
SE		(.075)	(.079)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

## E.4 Removal of all problematic observations

### Binary logistic regressions for the initiation of negotiation

Variable	(1) N = 189	(2) N = 189	(3) N = 186
Constant			
B	-.282	-4.200***	-7.678***
SE	(.202)	(1.265)	(1.628)
Gender participant (1=female, 0=male)			
B	-.658**	-.649**	-.543
SE	(.311)	(.325)	(.354)
Age participant			
B		.127***	.152***
SE		(.044)	(.050)
Actual performance			
B		.039	-.010
SE		(.026)	(.030)
Self-estimated performance			
B			1.205***
SE			(.257)
Södertörn University			
B		.060	.112
SE		(.404)	(.438)
Stockholm University			
B		.514	.444
SE		(.387)	(.422)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10

### Binary logistic regressions for the initiation of negotiation

Variable	(4) N = 189	(5) N = 189	(6) N = 186
Constant			
B	-.038	-6.054***	-9.541***
SE	(.275)	(2.137)	(2.510)
Male/Male			
B	-.530	-.555	-.658
SE	(.409)	(.429)	(.467)
Female/Male			
B	-.720*	-.682	-.592
SE	(.416)	(.437)	(.478)
Female/Female			
B	-1.125**	-1.225**	-1.158**
SE	(.455)	(.484)	(.523)
Age participant			
B		.124***	.155***
SE		(.046)	(.052)
Actual performance			
B		.037	-.013
SE		(.027)	(.031)
Self-estimated performance			
B			1.227***
SE			(.263)
Södertörn University			
B		.028	.086
SE		(.416)	(.450)
Stockholm University			
B		.495	.440
SE		(.396)	(.432)
Dress code			
B		.343	.245
SE		(.292)	(.355)
Age experimenter			
B		.081	.078
SE		(.077)	(.081)

\*\*\* p<0.01 \*\* p<0.05 \* p<0.10