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Expanding the pie: The effect of power asymmetry and gender differences on value creation in negotiations

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Abstract

In this study ($N = 314$) we tested the propensity of individuals to expand the pie in negotiations under power asymmetry and investigated gender differences in value creating and value claiming. For this purpose, we created a new paradigm of mandatory-optional negotiation problems with two conditions, where one party benefits more from integrating optional problems into the negotiation, than it is costly to the other party. The main focus was on the joint outcome of the negotiators and on how many additional problems were added to five problems highlighted as being mandatory to negotiate. In a mixed-motive two-party negotiation, the negotiators were assigned randomly to a powerful (boss) or a powerless (subordinate) role and to one of two benefit conditions. It was hypothesized, that powerless negotiators are more prone to expand the pie, out of the need to compensate for the power asymmetry and thus, the joint outcome should be higher, when the powerless is in the condition where adding optional issues to the negotiation leads to losing points, than when the powerful is in the losing condition. The findings have shown, that more power leads to significantly higher individual outcomes, but does not influence the value creation. Men and women performed equally and the value creation was not significantly affected by gender differences. The further influence of power asymmetry and gender on negotiation strategies are discussed.

Keywords: expanding the pie; value creation; power asymmetry; gender differences

Expanding the Pie in Negotiations: The Effect of Power Asymmetry and Gender Differences on Value Creation in Negotiations

Imagine you want to negotiate the conditions of your promotion with your boss. Who do you think will put more effort in creating a pleasant outcome for both, you or your boss? And what if your boss is a woman? Or you are? Would that make a difference?

This research is aiming to investigate these intriguing questions. How do power differences and its interaction with gender influence the propensity to expand the pie in bargaining situations? In the negotiation literature, we find different types of negotiations regarding the bargaining behaviour of the negotiators (Kelley & Stahelski, 1970, as cited in Wilson & Thompson, 2014), but every negotiation is a mixed-motive situation. This is, individuals are not motivated to act in a purely competitive way, neither are they interested in behaving fully cooperatively. Rather both interests have a justified motivation: a cooperative incentive to reach an agreement together, but a selfish incentive to reach the best possible solution for oneself.

The Fixed-Pie Perception and the “Mandatory-Optional Issue” Paradigm

To be able to find an integrative solution (i.e., a solution that satisfies both parties' interests more than a simple compromise, REF), the negotiators have to give up on the so called “fixed-pie” perception, labelled as one of the greatest weaknesses in traditional forms of negotiations by Fisher, Ury, and Patton (1991). This term describes the common assumption of most individuals, that their interests will clash directly with the interests of their counterpart (Wilson & Thompson, 2014): What one wins is the others' loss and vice versa. These authors also claim that people are not very likely to explore the whole potential of a negotiation and often settle too early for an agreement below their

possibilities. They explain that this can be due to a wrong perception of the opponent's intentions or due to not looking for enough other possible solutions. Thus, to find the optimal solution, people have to think creatively and explore the maximum number and combinations of different alternatives for a certain agreement, they have to "expand the pie" (Fisher, Ury, & Patton, 1991).

There are different possibilities to increase the value of a potential agreement. One option is, to extend a positive relationship with the negotiation partner into a future cooperation, which could lead to a long-term business relationship. A second option is to include alternative aspects into the negotiation, beneficial for both parties. Imagine two persons opening a sandwich bar together. The subordinate wants to transmit a healthy and conscious lifestyle to everybody and thus wants to use only organic products. The boss is a classical business man/woman and mainly wants to make money. Thus, if the subordinate wants to add fresh juice to the menu, this is interesting and beneficial for both. It's healthy and very "en vogue" so people will buy it. By adding an additional aspect, the value pool is increased, which makes a satisfactory solution for both parties more likely. If such a perfect trade-off is not possible because of the nature of the agreement, the pie can still be expanded through adding further features to the agreement, which are more beneficial for one party, than costly for the other party. Let's stick to the last example. Imagine that the subordinate and the boss cannot agree on the menu. One of them suggests to not settle on it for the moment and talk about the quality of the ingredients instead, an issue, which was not on the negotiation table before. The subordinate insists on using only certified organic products, because everything else is irresponsible to Mother Nature. The boss doesn't want to spend so much money, if they could have cheaper regional products. But, it is also true on the one hand, that they could build a nice brand reputation out of using only organic

products and on the other hand, considering the huge importance this issue seems to have for the subordinate, if the boss agrees on adding this issue to their deal, he/she creates value in the sense that he/she can use this agreement to renegotiate the menu issue in his/her favour later. Through adding an additional aspect to the negotiation, joint value is created, because there is more value to be distributed between both negotiators, what makes it easier to bargain. Thus, in order to achieve a satisfactory agreement for both, it is indeed possible to logroll within the issues on the bargaining table. Logrolling is the technique when one negotiator makes a concession on a certain issue and expects the other negotiator to make a concession on a different issue afterwards (Wilson & Thompson, 2014). But on the other hand, to truly enlarge the pie, we believe that the most effective method is to add new aspects to the deal in order to create value and thus have more value to distribute between both parties. Unfortunately, this approach has not been studied extensively. In mixed-motive negotiations with the typical role play paradigm it is usually not possible to include additional aspects to the negotiation, at least not within the scope of the payoff schedule used. This means, that the negotiators have to find an agreement for all the aspects on the payoff schedule. Thus, they have no leeway to create value by bringing new aspects into play.

We developed a new paradigm to address this argument: The mandatory-optional issue paradigm. The corresponding payoff schedule consists of eight problems: Five are described as mandatory to negotiate, in order to reach an agreement. The other three problems are labelled as being optional. The participants can negotiate them, but don't have to include them in the agreement. So, it is up to them to expand the pie by including new issues to the deal or not.

The “Benefit” Manipulation

Depending on the condition, one negotiator benefits from agreeing on a solution for the optional problems and the other negotiator loses value for doing so. The idea is, that finding a solution for the optional problems is more beneficial for one party, than costly for the other party. We'll use this logic in two different conditions. In one condition, the powerful benefits from the point schedule and will always gain points when adding optional issues (“leader benefit” condition). In the other condition, the powerful will have to sacrifice points in order to create value, he/she will lose points when adding optional issues, therefore this condition will be called “leader sacrifices”.

We hope that this paradigm allows us to operationalize the value creation, to track and to quantify the expanding of the pie in order to investigate how power and its interplay with gender influences the propensity of expanding the pie. Does having more power lead negotiators to expand the pie more through adding additional issues to the agreement than when having less power? Or does high-power hinder the value creation?

The Influence of Power Asymmetry

This research is aimed to explore these questions, examining how power asymmetry influences the behaviour of expanding the pie. But what is power? And what is power asymmetry? Power has been defined as the capacity to modify others' states (Keltner et al., 2003). Thus, power asymmetry is an unequal distribution of this capacity. This asymmetry between two persons has shown in a very consistent manner, to be highly influential in human behaviour and especially in negotiation settings. It has been demonstrated that powerful people negotiate more often than powerless people and they are more prone to make the opening offers, which results in a bargaining advantage (Magee, Galinsky, &

Gruenfeld, 2007). The effects of power on human behaviour can be explained by the activation of the behavioural approach system (Keltner et al., 2003). This theory predicts that power is related to having access to a greater amount of resources, to pay more attention to rewards and care less about the social consequences of the own actions. All of these aspects qualify powerful people to be more active and goal directed in their behaviour.

A person can feel powerful for several reasons. In this study, we aim to explore social- (gender), and structural- (being assigned to a powerful vs. powerless role) power. When an individual is assigned to a powerful role, such as being the boss, he/she is less dependent on the cooperation of the other party and is entitled to impose a solution. Interestingly, there is no common sense between researchers about the influence of power imbalances in mixed-motive bargaining situations (with integrative, distributive and compatible potential). One part of the researchers agrees, that better joint outcomes can be reached with power balance than with power imbalance (Wolfe & McGinn, 2005). Based on the reasoning, that power equality leads to more information sharing between the negotiators, being more conscious about the fact, that they also need to meet the interests of the other party in order to have their own preferences satisfied (Rubin, Pruitt, & Kim, 1994). Wolfe and McGinn (2005) hypothesize furthermore that power imbalance can be harmful for the value creation in the sense, that the powerful negotiator imposes his/her interests and the interests of the powerless are not sufficiently examined. Other researchers however claim that an unequal power distribution leads to more integrative bargaining (Sondak & Bazerman, 1991). Pinkley et al. (1994) explain this by reasoning that low-power individuals are more interested in creating value in order to convince the high-power individual to settle with him/her for an attractive solution for both, instead of walking away

or imposing a solution. Furthermore, the findings of Greer and Van Kleef (2010) support this reasoning: Having equal power in low-power groups can lead to more conflict, as individuals start fighting for power and resources, power struggles arise. In high-power groups on the other hand, power balance is helpful in the sense that the individuals can focus on the task and do not engage in discussions over power. Fiske (1993) suggests further, that individuals with low-power are more cooperative than high-power individuals, therefore it should be easier to find a satisfactory agreement. This is explained through the perception of the self-concept. When an individual perceives to be interdependent (low-power) on the other negotiator, then this person tends to share information in a more open way in order to build a positive, trustworthy relationship (Rao & Schmidt, 1998), than when the self-concept is perceived as being independent (high-power). In the latter case, individuals are more prone to concentrate on their own aims, regardless of the costs that this bears for their counterpart and endeavour less to understand the interests of the powerless (Fiske, 1993). Thus, high-power individuals often act more competitively (Kim & Fragale, 2005).

Based on this knowledge, high-power individuals will probably only be willing to expand the pie when directly benefiting from it, but avoid expanding when they would need to make a sacrifice in order to create value. Low-power individuals on the other hand, should be more willing than high-power individuals to expand the pie when it is costly for them, as they should recognize the importance of a greater value pool for them in order to achieve a satisfactory agreement. Here it is important to note, that adding any optional issue to the deal will always increase the collective benefit of the agreement, as the value pool gets larger, thus more points are on the table ready to be distributed. So, if distributed smartly, both negotiators can get a better deal the more optional issues are added.

In this study, we will henceforth use one experimental manipulation, ascribing or a powerful or a powerless role to the negotiators and then assigning them to one of the two structurally different conditions (leader benefits vs. leader sacrifices). Through these conditions, we want to examine how the powerful/powerless behaves when having the opportunity to sacrifice own points in order to enlarge the value pool compared to the condition when he /she wins points when adding optional issues.

H1a: Low-power individuals are more willing than high-power individuals to sacrifice points on the optional issues when in the losing condition in order to create value.

H1b: Thus, the joint outcome will be higher when adding optional issues is costly to the powerless, than when it is costly to the powerful.

Does Gender Make a Difference?

One aspect, that strongly influences how the source of personal power is perceived and expressed, is gender. Gender is one of the variables that received most attention in the negotiation literature. Therefore, the current experiment is aimed at investigating the interplay of power and gender and its influence on the propensity to expand the pie. Last but not least, this study will be used also to compare the overall performance of men and women in the negotiation. The authors of a recent meta-analysis (Mazei, Hüffmeier, Freund, Stuhlmacher, Bilke & Hertel, 2015, p.1) including 123 effect sizes (overall $N = 10888$), highlight the importance of this investigation: “Tangible negotiation outcomes indicate that women may be placed at a systematic disadvantage vis-à-vis men in negotiation, which may contribute to persistent outcome differences such as the gender pay gap where men’s salaries typically surpass those received by women.” Scientific literature claims, that men achieve systematically better outcomes in negotiation than women

(Stuhlmacher & Walters, 1999). There are several theoretical approaches explaining this pattern, such as the concept of social power differences. Eagly and Johnson (1990) explain, that men benefit from higher status than women in the society and thus, power is more attainable for them. As men naturally get assigned more power and status, they are awarded with more influence in bargaining situations, which improves their performance (Kray & Thompson, 2005). Consequently, men being in a socially high-power position and women in a low-power position leads to gender differences in the outcome of bargaining situations. Another theoretical explanation given by Kray and Thompson is the theory of self-construal, used before to explain the dynamic in power asymmetric situations. Men act like being more independent and women act like being more dependent, which has notable effects on their performance in negotiations. But, Kray and Thompson actually defend in their review, that this pattern is not ubiquitous. Hong and Van der Wijk (2013) discovered, that when women are placed in a powerful position, they act in a more masculine way, being more assertive and dominant and less cooperative than in a low power position. They only found a significant interaction between power and gender for women, not for men. Solely female behaviour was changed qualitatively by the power manipulation. Kray and Thompson (2005) suggest, that when eliminating status differences between men and women through placing the women in a high-power position, the differences in bargaining behaviour disappear. Thus, these researchers suggest that power could be a mean to equalize the performance of men and women in negotiations. Therefore, the prediction is the following:

H2: When primed with high-power, there is no difference in the individual outcome of the negotiation between men and women.

H3a: When primed with high-power, women are equally unlikely as powerful men, to sacrifice their own points in order to create value.

Even though there is a broad research body about gender differences in negotiations, the literature review “of behavioural negotiation tasks reporting gender differences” of Kray and Thompson (2005, p. 120) from 1971 to 2004 and the recent meta-analysis of Mazei et al. (2015) reveal inconclusive results. In the literature review of Kray and Thompson, it seems that that most extensive studies were conducted in distributive bargaining situations, but only few studies investigated bargaining situations with integrative potential or mixed-motive problems. The type of bargaining situation might therefore be a predictor of the outcome. Reviewing the results of these studies, it is to observe, that some researchers defend the standpoint that men achieve better individual results and a higher joint outcome in mixed-motive negotiations (Miles & LaSalle, 2009), pointing to the fact that the best strategy to create value in mixed-motive negotiations is a mixture between competitive and cooperative tactics. Applying competitive strategies is supposed to be incongruent with the female gender role (according to social role theory of Eagly, 1987), so women achieve lower personal and also lower joint outcomes. On the other hand, some researchers argue that the stereotypic female behaviour leads to more integrative solutions in negotiations with integrative potential (Walters, Stuhlmacher & Meyer, 1998) exactly for the reason that they are more cooperative and concerned with a good relationship with their negotiation partner, a more congruent behaviour with the communal female gender role (Miles, 2010). In addition, Keltner, Gruenfeld and Anderson (2003) explain that high-power leads to more congruence between personal traits and behaviour. Thus, when women are more communally oriented than men, then power should

enhance this difference. The inconsistency between these theoretical explanations, leads to a competing hypothesis to Hypothesis 3a.

H3b: When primed with high-power, women are more likely than men to sacrifice their own points in the losing condition in order to create value.

Method

Participants and Design

The sample consisted of $N = 314$ participants, who were recruited outside the lab in public places, like cafés and university campuses, mainly in The Hague, Leiden and Amsterdam, but also in Germany and Spain. The prerequisites for the participation in this study were being in the age range between 18 and 65 and to fluently speak one of the three languages the materials were translated to (English, Dutch, Spanish). Furthermore, we avoided selecting negotiators in a romantic relationship, trying to control for the influence of romantic emotions. The experiment lasted between 20 and 30 minutes and the participants were randomly assigned to one of the 4 experimental conditions of the 2 (Benefit: leader benefits vs. leader sacrifices) x 2 (roles of the game: subordinate vs. boss) x 2 (gender of the boss: male vs. female) x 2 (gender of the subordinate: male vs. female) design, in which the first and the latter two factors were manipulated between dyads, and the second factor was manipulated within dyads. As an incentive, a free non-alcoholic drink was promised. From the $n = 314$ subjects that participated, 42% were male and 58% female. These $n = 314$ participants formed 157 dyads, of which 30 dyads were composed of two men, 53 dyads of two women and 74 dyads were mixed. Of these 74 mixed dyads, 34 dyads consisted of women in the role of the boss and men as subordinates and 40 dyads consisted of men in the role of the boss and women as subordinates. 60% of the whole

population were Dutch native speakers, 6.3% were Spanish natives, 6% French, another 6% English, 3.2% German and 18.5% had another mother tongue. 61,2% of the dyads received the instructions in Dutch, 35% in English and 3.8% in Spanish.

Procedure and Negotiation Task

The experiment was conducted in the same place where the participants were approached. After signing the informed consent, the participants received a one-page instruction (negotiation procedure and rules of the game, Appendix 1). The participants were asked to imagine that they run a sandwich bar together with another negotiator. The roles of the boss and of the subordinate were randomly assigned. The purpose of the negotiation is presented as reaching a good agreement for oneself in all five mandatory issues and collecting as many points as possible. Besides the five mandatory issues, the participants had the choice to also negotiate three optional issues. Every participant received a payoff schedule (Appendix 3, 4, 5 and 6). On this schedule, the five mandatory issues and the three optional issues were presented with three or four possible agreement solutions each and a specific amount of points for every solution. The five mandatory issues (see Table 1) contained one compatible issue (duration of work shift; both players preferred 8 hours shifts), two distributive issues (Division of tips; 4 different solutions and the preferences from both players are opposed; Cleaning schedule, 3 different solutions, the preferred solutions of both players are opposed) and two integrative issues (Sandwiches and Day closed, both players have different preferences, but will achieve a lower amount of total points when agreeing in the middle between their preferences, instead of agreeing on the preference of one of the negotiators). The optional issues were (Table 2): Ingredients, Stroopwafels (modified according to the translated language) and Fresh Juice. Depending

on the experimental condition (see “Manipulation” below), each optional issue yielded a small loss to one party, and a larger gain to the other party. The instructions stress the fact, that the boss has the power to decide the agreement unilaterally, if they are not able to reach a mutual agreement. After studying the instructions and the point sheet, the participants are asked to answer a pre-negotiation questionnaire (Appendix 2), including four questions to check if the participants understood the use of the point sheet and the power manipulation (e.g.: “Who is most powerful in this negotiation?”), and a form to fill out their reached agreements and the total sum of points of every negotiator separately. After the negotiation, every participant received a post-negotiation questionnaire (i.e., manipulation check questions, perceptions, negotiation behaviour, Appendix 7) with a 46 item 1-to-7 scale. The questionnaire also included one open question to assess the motivation to integrate optional issues and several questions on demographic information (age, gender, mother tongue, educational level). Finally, participants were thanked, fully debriefed and rewarded with a free non-alcoholic drink.

Independent Variables

Manipulation of Power Asymmetry. Power asymmetry was manipulated through the instructions the participants received before negotiating. Both negotiators were told who of them is the boss and who is the subordinate. Furthermore, the instructions specified, that “*If you cannot agree on a solution for a problem, then Mark/Mary, the boss, will decide which solution to choose*”.

Manipulation of Benefit. The benefit manipulation had two conditions “*leader benefits*” and “*leader sacrifices*” and was structurally manipulated through our developed paradigm: Every negotiator had a payoff schedule (see Appendix 3, 4, 5 and 6) with the

amount of points to gain for every solution on every problem. The points which the negotiator could win or lose on the optional issues was dependent on the condition (see Table 2). In the leader benefit condition, the boss could win a small amount of points when selecting one solution and a bigger amount for selecting the other one. The third option was to select “*no solution on this issue*” and to receive zero points. The subordinate could lose a small amount of points for one solution or lose a bigger amount for the other solution or lose no points for the “no solution” option. In the second condition (leader sacrifice), the payoff schedules for boss and subordinate were reversed.

Gender. The participants were assigned randomly to one of two roles (powerless vs. powerful). The name of the role was assigned consistent with their gender (powerless: Louis/Lisa, powerful: Mark/Mary (adapted to typical names in the translated language). Even though the assignment to roles occurred at random, it was strived for an equal number of observations in the four gender-constellations (e.g., two men, two women, powerful man and powerless woman, powerful woman and powerless man).

Measures

Individual Outcome. The individual outcome of every participant was measured by adding up the points achieved in the five mandatory and the three optional issues. The achieved minimum value of the powerless person was -7 and the maximum value 25 ($M = 6.79$, $SD = 5.19$). The lowest value for the powerful person was -2 and the highest 27 ($M = 10.68$, $SD = 5.52$).

Joint Outcome. Joint outcomes were measured by adding up the total amount of points achieved by the powerless to the total amount of points achieved by the powerful. The lowest achieved joint outcome was 12 and the highest 24 ($M = 17.47$, $SD = 2.27$).

Individual Outcome of Mandatory Points. The points on the mandatory issues were calculated by adding up the points a participant achieved only in these five issues. The lowest result in the mandatory issues for the powerless was -1 and the highest was 13 ($M = 5.92$, $SD = 2.67$). For the powerful the lowest amount of points was 3 and the highest 15 ($M = 9.29$, $SD = 2.75$).

Individual Outcome of Optional Points. The points of the optional issues were calculated by adding up only the points for the three agreed solutions on the optional issues for every participant. The powerless ($M = 0.87$, $SD = 4.24$) and the powerful ($M = 1.38$, $SD = 4.47$) got both as lowest outcome -6 and as highest outcome 12 points (which were the minimum/maximum amount of points one could lose/win in these issues).

Number of Optional Issues Added. The number of optional issues added to the agreement was calculated by summing up how many of the three optional issues were integrated to the agreement. 19% of the dyads added 0 optional issues, 27.4% added 1 issue, 26.8% added 2 and another 26.8% added all 3 issues.

Desire on Adding the Optional Issues. To measure how much the participants wanted to add the optional issues, we used three items in the post-negotiation questionnaire, as “*I wanted to select a solution for the problem fresh juice*”, one for every optional issue. As the answers to these three questions were highly correlated (for the powerless, Cronbach’s alpha was .861; for the powerful, Cronbach’s alpha was .824), we constructed the scale *wanting to add optional issues* ($M_{\text{powerless}} = 12.6$, $SD = 5.70$; $M_{\text{powerful}} = 12.1$, $SD = 5.71$)

Manipulation Check Benefit. For this condition, no manipulation check was needed, as it was a structural manipulation with different payoff schedules for the different conditions (see Appendix 3, 4, 5 and 6).

Manipulation Check Perceived Power Asymmetry. To measure if the participants did actually perceive the power asymmetry and the boss actually felt more powerful than the subordinate, we used the following items in the questionnaire on a 7-point Likert scale (1= *not at all*; 7= *very much*): “During the negotiation, I could basically decide whatever I wanted”, “During the negotiation, I had a powerful position”, “During the negotiation, I was dependent on the other player in order to reach a deal” (*recoded*). Only the answers of the first two questions were correlated for the powerless (Cronbach’s alpha was .645, $p = .039$) and the powerful role (Cronbach’s alpha was .666, $p < .01$), the last item appears to be not a very strong indicator for power. Hence, we computed the new variable *perceived power* ($M_{\text{powerful}} = 9.41$, $SD = 3.05$; $M_{\text{powerless}} = 6.63$, $SD = 2.65$)

Negotiation Atmosphere. The participants rated two items about the atmosphere during the negotiation, as for example: “I liked the way we negotiated”. Their answers correlated highly for both roles (Cronbach’s alpha for the powerless was .894, $p < .01$, for the powerful it was .80, $p = .027$), thus we constructed the scale *negotiation atmosphere* ($M_{\text{powerful}} = 11.16$, $SD = 2.41$; $M_{\text{powerless}} = 10.71$, $SD = 2.75$).

Turnover and Break off Intentions. The negotiators filled out three questions related to turnover and break off intentions, e.g.: “If I actually worked in the bar, I would like to continue working there” (*recoded*), “If I actually worked in the bar, I would consider quitting the job after this negotiation”. Their answers correlated moderately for both roles (Cronbach’s alpha for the powerless was .650, for the powerful it was .549, both $ps < .01$), thus we constructed the scale *turnover and break off intentions* ($M_{\text{powerful}} = 10.28$, $SD = 3.61$; $M_{\text{powerless}} = 11.93$, $SD = 4.05$).

Concern for Others. To measure the concern of one negotiator for the other party, they rated four items, e.g.: “In the negotiation, I found it very important to take my own

interests into account” (*recoded*), “In the negotiation, I found it very important to take the other’s interests into account”. The first item about concern for oneself seems not to be a reliable indicator for concern for others, neither recoded. The answers of the other three items did correlate moderately for both roles (Cronbach’s alpha for the powerless was .687, for the powerful it was .718, both $ps < .01$), thus we constructed the scale *concern for others* ($M_{\text{powerful}} = 13.89$, $SD = 3.85$; $M_{\text{powerless}} = 13.53$, $SD = 3.72$).

Trust. To assess how trustworthy the relationship between both negotiators was desired and perceived to be by them, they ranked two items (E.g. “I cared about having a trustworthy relationship with the other negotiator”). Their answers correlated moderately for both roles (Cronbach’s alpha for the powerless was .651, for the powerful it was .671) thus we constructed the scale *trust* ($M_{\text{powerful}} = 10.3$, $SD = 2.57$; $M_{\text{powerless}} = 9.74$, $SD = 2.77$).

Communication and Deception. Self-reported communication and deception behaviour was assessed with seven items (E.g. “Everyone got the possibility to voice their opinion”, “In negotiations, not telling the whole story is part of the game” (*recoded*), “I strategically withheld information” (*recoded*), “I gave inaccurate information in order to get a better deal” (*recoded*)). Their answers correlated moderately for both roles (Cronbach’s alpha for the powerless was .717, for the powerful it was .718, both $ps < .01$), thus we constructed the scale *open communication behaviour* ($M_{\text{powerful}} = 40.98$, $SD = 4.96$; $M_{\text{powerless}} = 39.27$, $SD = 4.98$).

Conflict handling. To evaluate how both negotiators dealt with conflicts, they answered a short version of the Dutch test for Conflict Handling (DUTCH; De Dreu, Evers, Beersma, Kluwer & Nauta, 2001). Four items were used to measure problem-solving, as e.g.: “I gave in to the wishes of the other player”, “I adapted to the other party’s goals and interests”. The answers to these questions were correlated moderately for the powerless

0.66) and the powerful (.71, both $ps < .01$) thus, we constructed the scale *problem solving behaviour* ($M_{\text{powerful}} = 18.02$, $SD = 4.13$; $M_{\text{powerless}} = 19.3$, $SD = 3.64$). How much the negotiators forced their own preferences was assessed through three questions, as e.g.: “I pushed my own point of view”. The items correlated highly for the powerless with Cronbach’s Alpha .86 ($p < .01$) and for the powerful with $r = .85$ ($p = .055$). Thus, we constructed the scale *forcing* ($M_{\text{powerful}} = 14.76$, $SD = 4.23$; $M_{\text{powerless}} = 14.66$, $SD = 4.01$). To measure compromising, three items were answered (e.g.: “I stood for my own *and* the other’s goals and interests”). The items correlated highly for the powerless with Cronbach’s Alpha .79 and for the powerful .80. Thus, we constructed the scale *compromising* ($M_{\text{powerful}} = 15.30$, $SD = 3.53$; $M_{\text{powerless}} = 14.99$, $SD = 3.02$). And to assess avoidance behaviour, another two items were filled out: “I avoided differences of opinion as much as possible”, “I tried to avoid a confrontation with the other”. The answers to these items were correlated moderately for both, the powerless (Cronbach’s alpha was .70,) and the powerful (Cronbach’s alpha was .71). Thus, we constructed the scale *avoidance behaviour* ($M_{\text{powerful}} = 7.43$, $SD = 3.09$; $M_{\text{powerless}} = 7.85$, $SD = 2.90$).

Results

Manipulation Check for Power Asymmetry

In the manipulation check before the negotiation, 89.8% of the powerless negotiators identified correctly who is the powerful person in the negotiation (the boss) and 92.4% of the powerful did the same. This leads us to conclude the success of the power manipulation in terms of perceived power asymmetry.

The second manipulation check for power asymmetry was the post-negotiation questionnaire. When analysing the answers to the *perceived power scale*, we found that the

person in the role of the boss felt significantly more powerful ($M = 9.41$, $SD = 3.06$) than the person in the role of the subordinate ($M = 6.63$, $SD = 2.66$; $t(153) = 30.9$, $p < .01$). In order to test the success of the power manipulation further, I submitted the perception of power of both negotiators to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the leader: male vs. female) x 2 (gender of the powerless player: male vs. female)

MANOVA. There was a significant main effect of benefit on the perceived power levels ($F(2, 142) = 5.48$, $p = .005$). No other main effects or interaction effects were observed. The between-subjects effects revealed, that the feeling of power of the powerful person was significantly enhanced by the leader benefiting condition ($M_{\text{leader-benefit}} = 10.09$, $SD = 2.64$; $M_{\text{leader-sacrifice}} = 8.77$, $SD = 3.29$, $F(1, 151) = 8.74$, $p = .004$). The powerless person felt also marginally more powerful when benefiting from the optional issues ($M = 7.04$, $SD = 2.62$) than when not benefiting ($M = 6.19$, $SD = 2.65$; $F(1, 151) = 4.41$, $p = .037$).

Effects of Power on Individual Outcomes

In order to test if power asymmetry has an influence on the individual outcome of the negotiators, I compared the means of the individual outcomes of the powerless and the powerful role. Regardless of the benefit condition, the powerful person achieved a significantly higher individual outcome ($M = 10.68$, $SD = 5.52$) than the powerless person ($M = 6.79$, $SD = 5.19$; $t(156) = 16.36$, $p < .01$). The powerful also obtained on average significantly more points from the optional issues ($M = 1.38$, $SD = 4.45$, $t(156) = 3.87$, $p < .01$) than the powerless person ($M = 0.87$, $SD = 4.24$; $t(156) = 2.6$, $p = .011$). The same pattern could be noted for the mandatory points, the powerful negotiator achieved significantly more points on average ($M = 9.29$, $SD = 2.75$; $t(156) = 42.35$, $p < .01$) than the powerless negotiator ($M = 5.92$, $SD = 2.68$; $t(156) = 27.73$, $p < .01$).

Power asymmetry had no significant effect on the number of optional issues added, on the joint outcome, on the amount of points of the mandatory issues or on the desire of adding optional issues to the agreement.

Analysis of Benefit Manipulation

To see if the benefit manipulation was effective I submitted the individual outcome of both negotiator roles to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the leader: male vs. female) x 2 (gender of the powerless player: male vs. female) MANOVA. There was a significant main effect of benefit ($F(1, 157) = 52.69, p < .001$). There were no other significant main or interaction effects. The main effect of benefit showed that when the powerful benefits, he/she got more points as individual outcome when benefiting ($M = 14.3, SD = 5.01$) than when not ($M = 7.28, SD = 3.43, F(1, 157) = 101.51, p < .001, r^2 = .40$). The same pattern was observed for the powerless ($M_{Benefit} = 9.91, SD = 4.55; M_{NotBenefit} = 3.46, SD = 3.51, F(1, 157) = 95.14, p < .01, r^2 = .38$). Thus, the person who benefits accounts for 40% of the variance of individual points received by the powerful person and for 38% by the powerless. The structural benefit manipulation thus revealed, that the person who benefitted from the optional problems achieved a higher individual outcome, regardless of the power asymmetry (see Figure 1). Power enhanced this effect. There was a significant main effect of power: The powerful person gained significantly more points on average ($MD = 10.7, t = 24.23, p < .001$) than the powerless ($MD = 6.8, t = 16.36, p < .001$) in both benefit conditions.

In order to further analyse the effect of the benefit manipulation, I submitted the individual outcome of the optional issues to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the leader: male vs. female) x 2 (gender of the powerless player: male vs.

female) MANOVA. The main effect of benefit is significant. When the powerful benefitted, this person achieved a significant higher amount of points on the optional issues ($M = 5.00$, $SD = 3.60$), than when he/she did not benefit ($M = -2.01$, $SD = 1.67$, $p < .01$, $r^2 = .62$). The same pattern was found for the powerless person ($M_{\text{benefit}} = 4.02$, $SD = 3.34$; $M_{\text{notbenefit}} = -2.50$, $SD = 1.80$, $p < .01$, $r^2 = .60$).

To test Hypothesis 1a, that the low-power negotiator is more willing to sacrifice points on the optional issues when in the losing condition than the high-power individual, and to test Hypotheses 3 a and b, if women are more or less likely than men to sacrifice points, I submitted the wish to add optional issues to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the powerful player: male vs. female) x 2 (gender of the powerless player: male vs. female) MANOVA. I observed a significant main effect of benefit ($F(2, 143) = 17.27$, $p < .001$): When benefiting, the powerless ($F(1, 152) = 11.60$, $p = .001$) and the powerful ($F(1, 152) = 17.78$, $p < .001$) have a stronger preference for integrating optional issues ($M_{\text{powerless}} = 14.33$, $SD = 5.06$; $M_{\text{powerful}} = 14.00$, $SD = 4.97$), than when not benefiting ($M_{\text{powerless}} = 10.85$, $SD = 5.83$; $M_{\text{powerful}} = 10.31$, $SD = 5.84$). There was no significant main effect of power, nor gender. But there was a significant interaction effect between the benefit manipulation and the gender of the powerful person ($F(2, 143) = 3.48$, $p = 0.033$). This interaction was significant on the preference of the powerless negotiator on integrating optional issues ($F(1) = 6.98$, $p = .009$). When the powerful is a woman, the difference on wanting to add additional issues when benefiting ($M = 15.11$, $SD = 4.79$) and when not benefiting ($M = 9.43$, $SD = 5.63$) is much greater ($MD = 5.68$), than the difference between wanting or not when the powerful is a man ($M_{\text{benefit}} = 13.31$, $SD = 5.30$; $M_{\text{not-benefit}} = 12.51$, $SD = 5.69$; $MD = 0.80$). How we can see in Figure 2, the powerless always has a stronger preference for adding the additional issues when benefiting, but

he/she is much more reluctant to add optional issues and lose value through it, when the powerful is a woman, rather than a man.

In order to test Hypothesis 1b, that the joint outcome will be higher when adding optional issues is costly for the powerless, than when it is costly to the powerful, and Hypothesis 3 a and b, to see if there are differences related to gender, I submitted the joint outcome to a 2 (within: gender of powerful vs. gender of powerless) by 2 (between: benefit: leader benefit vs. leader sacrifice) Repeated Measures ANOVA. There was no significant main effect of benefit, power or gender constellation on the joint outcome. Nor did I find any significant interactions between the three.

Thus, the benefit manipulation had no significant effect on the achieved amount of points of the joint outcome, the individual outcome on the mandatory issues or on how many additional issues were added.

Gender Effects

In order to test the Hypothesis 2, that there is no significant difference between men and women on the individual outcome when power is manipulated, I submitted the individual outcome to a 2 (gender of powerful: male vs. female) x 2 (gender of powerless: male vs. female) by 2 (benefit: leader benefit vs. leader sacrifices) by 2 (role: powerful vs. Powerless) Repeated Measures ANOVA. There was no significant main effect of gender, nor a significant interaction between gender and power on the individual outcome. To explore this hypothesis further, I submitted the individual outcome on the mandatory points to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the leader: male vs. female) x 2 (gender of the powerless player: male vs. female) MANOVA. There was no significant main effect of gender or benefit, but a significant interaction effect between the

gender of the powerful and the gender of the powerless ($F(2, 148) = 4.38, p = .014$). The between-subjects effects clarify, that there is a significant interaction between the gender of the powerful and the powerless on the mandatory points of the powerless, ($F(1, 157) = 4.14, p = .044$). The descriptive statistics show, that powerless women get more mandatory points when the powerful is a man ($M = 6.3, SD = 2.11$) than when she is a woman ($M = 5.67, SD = 2.52$) and men in the powerless role get more mandatory points when the powerful is a woman ($M = 6.50, SD = 2.83$) than when he is a man ($M = 5.30, SD = 3.09$). The powerless negotiator always obtained more points when the powerful is of the opposite gender. The effect is larger for women in power, so they give more points away to low-power males.

How do Power Asymmetry, Gender and the Benefit of Adding Optional Issues affect Negotiation Strategies?

Power asymmetry and the benefit manipulation affected the forcing behaviour and the turnover and break off intentions from the negotiation strategies we measured in the post-negotiation questionnaire. When entering the forcing behaviour to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the leader: male vs. female) x 2 (gender of the powerless player: male vs. female) MANOVA. There was a significant main effect of benefit ($F(2, 148) = 3.68, p = .027$). To analyse this effect further, I submitted the forcing behaviour to a 2 (benefit: leader benefit vs. leader sacrifice) x 1 (forcing behaviour of the powerful) x 1 (forcing behaviour of the powerless) ANOVA. The main effect of benefit was significant ($F(1, 157) = 4.17, p = .017$) as before and the Between-Subjects effects showed a marginally significant effect of benefiting on the reported forcing behaviour of the powerless person ($F(1, 157) = 3.9, p = .051$). The powerless person reports to force the

own preferences more when benefiting ($M = 15.3$, $SD = 3.69$) than when not ($M = 14$, $SD = 4.3$). The Between-Subjects Effects revealed a significant effect of the gender of the powerful on the forcing behaviour of the powerless ($F(1, 157) = 5.56$, $p = .020$). The powerless reported to have forced his/her own preferences more, when the powerful person was a woman ($M = 15.26$, $SD = 3.42$) than when he was a man ($M = 13.90$, $SD = 4.55$; $F(1, 157) = 4.60$, $p = .034$), regardless of the gender of the powerless (see Figure 2).

To explore the relation between turnover and break off intentions and the benefit manipulation, I entered the turnover and break off intentions to a 2 (benefit: leader benefit vs. leader sacrifice) x 2 (gender of the leader: male vs. female) x 2 (gender of the powerless player: male vs. female) MANOVA. There were no significant main effects or interactions, but the Between-Subjects Effects showed a significant interaction between the benefit condition and the gender of the powerful on the turnover and break off intentions of the powerless ($F(1, 20) = 4.90$, $p = .047$). Thus, the powerless, regardless of his/her own gender, considers breaking up the negotiation marginally significantly more, when he is not benefiting from the optional issues and the powerful person is a man ($M = 16.00$, $SD = 6.27$) than when the powerful is a woman ($M = 9.83$, $SD = 2.04$).

Discussion

This study was aimed to investigate how power asymmetry and gender differences affect the expanding of the pie in negotiations. This was studied through a new design offering the option to negotiate solutions that would satisfy both parties' interests more than a simple compromise. Based on a broad research body, it was predicted that powerless individuals will be more likely to expand the pie, than powerful individuals in the situation of not benefiting directly from doing so, out of the need to compensate for the power

asymmetry. Moreover, research suggests, that power makes individuals more prone to negotiate in a competitive manner (Chen & Welland, 2002) and thus, when losing value directly through agreeing on these additional issues, the expansion of the pie will be less likely. Furthermore, I wanted to investigate the role of gender in negotiations and especially its role in the value creation. On the one hand, the review of Kray and Thompson (2005), suggests that there will be no gender differences at all, thus we expected women to achieve the same results as men and to find no difference in the value creation. But on the other hand, Walters et al. (1998) manifest, that women achieve more integrative solutions because of their more cooperative nature, thus I built up two contradictory hypotheses to further investigate these inconclusive results with participants from the general student and working population, which conducted a face-to-face negotiation with mandatory and optional issues.

Did the Subordinate create more Value than the Boss?

The manipulation checks showed a successful power manipulation. People perceived correctly who was the more powerful negotiator and the powerful individual felt correspondingly. The statistical results of this study indicate, that power has an important impact on the outcome of the negotiators. The powerful person achieves significantly higher outcomes in several different problem compositions (individual outcome of mandatory points, of optional points and total individual outcome). Furthermore, the difference between the individual outcome when benefiting from the optional issues and when not, was significantly smaller for the powerful individual, than for the powerless. That is, the powerful person always achieved, on average, a good outcome, regardless of being in a more or less beneficial position.

Unfortunately, there was not observed a significant effect of power on expanding the pie. The powerless negotiators did not, as predicted by Hypothesis 1a, enhance the value creation out of the need to convince the powerful to settle on a satisfactory agreement for both. The number of added optional issues did not depend on the interaction of power and benefit.

The cause of these results might be a premature closure on the mandatory issues. The analysis showed, that the fact of how many optional issues were added, did not depend on the amount of points received on the mandatory issues. Thus, the participants started negotiating the first problem on the payoff schedule (see Appendix 3,4,5 and 6) and then proceeded in order until the last problem on the page, settling on every issue when negotiating it. This had the consequence, that the agreements for the mandatory issues were settled before reaching the optional issues. Thus, the negotiators did not jump from one mandatory problem to an optional problem or vice versa. Maybe renegotiating an already closed issue was even perceived as breaking an existing commitment, which people wanted to avoid. Thus, the optional issues were not used to create value in the sense of accepting to lose points in one optional issue, but then claiming points in one of the mandatory problems to compensate for the prior sacrifice. This observed failure of value creation is in line with the claim of Fisher, Ury and Patton (1991) and Wilson and Thompson (2014) about the problematic fixed-pie perception. Other possible reasons will be discussed later on under “limitations”.

Did the Boss make Sacrifices to expand the Pie?

When analysing the benefit manipulation, I found a strong main effect of who benefits on the individual outcomes, thus, the person who benefitted from adding the

optional issues did achieve a significantly higher outcome than the person who did not.

This finding is inherent in our manipulation design, thus, not surprising. Unfortunately, the benefit manipulation did not influence the value creation. The boss did not make sacrifices in the optional issues in order to expand the pie, nor did the subordinate, as hypothesized. It seems, that the negotiator who benefitted from the optional issues just claimed this value, but did not grant value to the other negotiator in exchange. This behaviour was reinforced by having power.

Therefore, the joint outcome did not differ between the two benefit conditions, contrary to Hypothesis 1b. This means on the one hand, that both negotiators did not want to sacrifice points for creating value and on the other hand it is an interesting fact, that even when benefiting, they did not claim all the possible value out of the optional issues for their selves. Basically, they both failed in achieving a cooperative result, as well as a competitive one.

Does the Gender of the Boss or the Subordinate make a Difference?

As predicted by Hypothesis 2, we did not find any significant difference in terms of individual outcomes between men and women in a powerful position. This could mean that potential differences in performance detected in other studies are not due to gender, but to social power differences existing in our society. Therefore, men, being ascribed more status and power, achieve better results in negotiations than women. In this case, when controlling for power, both sexes performed equally. This finding supports Hypothesis 2, 3a and goes in line with the work of Kray and Thompson (2005), which defends that gender differences might become less meaningful, when the power variable is controlled. Thus, the outcome of

our study carefully supports the claim, that power could be an explanatory variable for differences in performance between men and women in negotiations.

Furthermore, we observed, that the gender of the boss had no influence on the outcome of the subordinate, nor was the joint outcome affected by the gender composition of the dyad. There was no support for Hypothesis 3b, that women would possibly expand the pie more than men. This contradicts the reasoning that women show a more cooperative approach than men in negotiations and that this tendency is enhanced by power. Hence, there was no evidence found, that a female boss would achieve a better outcome for the subordinates, a higher joint outcome and thus, create more joint value than a male boss. This finding contradicts also the work of Miles and LaSalle (2009), who found that men do create more value than women in mixed-motive negotiations.

I found an interesting power-gender interaction in the individual outcome in the mandatory issues. The subordinate achieved more points in the mandatory issues, when the boss is from the opposite sex. This is interesting, as it suggests, that in the case of an existing power asymmetry, the powerless individual may be better off when negotiation with a boss from the opposite sex. This finding does therefore not confirm, what Bowles, Babcock, and Lai (2007) found, that women receive worse outcomes in negotiations when negotiating with a man in a higher power/status position. This finding is indeed intriguing, but requires more research to understand the underlying processes.

Does Power, Gender, or who benefits and their Interactions influence Negotiation Strategies?

Apart from my main hypothesis, an interesting interaction effect was observed between power, gender and the benefit condition on the turnover and break off intentions.

The subordinates, regardless of their own gender, reported significantly more turnover and break off intent when not benefiting from the optional issues and particularly if the boss is a man, compared to being a woman.

This effect was not found for the powerful negotiator. This behaviour might contribute to the failure of a lot of negotiations. When the powerful just takes value, without seeking a good agreement for both, the powerless person is more likely to break off the negotiation. In our negotiation, to break off was not an option, as the boss could decide unilaterally for a solution in the case of no satisfactory agreement for both could be found. Moreover, this finding is not in line with the study of Pinkley et al. (1994), who found that powerful individuals are more likely than powerless individuals to break off a negotiation. This contradiction could be due to the fact, that we did not assess the actual break off rate, but the break off and turnover intentions, measured after the negotiation. Thus, low-power individuals are more likely to have these intentions, but probably powerful individuals are more likely to put them into practice. Very interesting indeed, is the observed gender effect. Powerless individuals are more prone to break off the negotiation when negotiating with a powerful man, than with a powerful woman. This could be due to the above explained theory that women show more concern for the other person and their relationship, than men (Rubin & Brown, 1975). Thus, women might be able through their verbal and non-verbal language, to minimize these negative intentions in their subordinates, even though they claim the same value and achieve the same outcome as their male counterparts. This hypothesis should be tested in a follow-up study.

Furthermore, there was a significant effect of benefiting or not on the reported forcing behaviour of the subordinates. They reported to enforce their preferences more than

the bosses, when perceiving the chance to gain additional value through the optional issues. Thus, the subordinates declared to behave in a more demanding way than the bosses. This behaviour tendency might have negative repercussions on the negotiation process and for the future relationship of the powerful and the powerless. Additionally, I found a related interaction between the forcing behaviour of the subordinate and the gender of the boss. Subordinates reported afterwards to have forced their preferences more, when the boss was a woman, rather than a man. This finding might be complementary to another gender effect we found: The effect between the benefit manipulation and the gender of the powerful negotiator on the desire to add optional issue of the powerless negotiator. The intriguing fact is that the subordinates are much more reluctant to lose this value against a female boss than against a male boss when they lose value through agreeing on the optional issues. This is especially interesting when analysing the outcome of the negotiations. There was de facto no significant difference between the amount of optional issues were added according to the gender of the powerful. However, it seems that subordinates facing the possibility to lose value through the negotiation of some issues, oppose themselves more when facing a female boss. First of all, this greater resistance to lose value against a powerful woman, might be explicable with a similar reasoning as exposed a few lines earlier. Researchers as Kray and Thompson (2005) describe that women are less dominant and assertive than men in their negotiation approach, what might invite their counterparts to fight harder to push through their preferences. This finding is in line with the previous finding, that the powerless individual reported to force the own preferences more, when negotiating against a powerful woman.

It is difficult to understand, why these intentions of resistance and forcing behaviour

of the powerless were not visible in the factual outcome of the negotiation. If our previous reasoning is correct, then it might be the case, that women somehow fight against more resistance when negotiating, but eventually achieve the same outcome as men. Thus, more research is required on the inconsistency between the intentions reported after the negotiation and the factual behaviour of powerless negotiators against powerful women in settings comparable to the ones used in this study.

Limitations and Suggestions for Follow-up Studies

Unfortunately, this study did not remain untouched by limitations. We did not find an effect of power or benefit on expanding the pie. This is, on the one hand, probably due to the failure of the participants in recognizing the whole potential of the negotiation, but, on the other hand, certainly also to some oversights on structural parts of our design. The first, possible structural problem is the reward structure. Individuals were expected to engage in the negotiation out of intrinsic motivation, as gaining points and winning is intrinsically rewarding. That was actually what we observed during the negotiations, people seemed to be very engaged. But, it is also true, that the points they gained were meaningless, apart from the fact that the negotiator with the most points could claim him/herself the winner of the game. Therefore, every negotiator was only fighting against the other one and not trying to maximize his/her own outcome.

Possibly individuals only engage in expanding the pie when having a vested interest in gaining points. Thus, we suggest for a follow up study to add a different reward structure, comparable to the one used by Van Tol (2016). In their study, the reward for participating in was the participation in a lottery, where the participants have a certain probability to win an attractive monetary price. The important shade here was, that people

can increase their chances of winning through the points they gain during the negotiation. With this approach, I hope for the following: People should concentrate more on the points and try to maximize their outcome through logrolling and creating value wherever it is possible. In order to do this, they will need to communicate the content of their payoff schedule to the other negotiator. Therefore, the probabilities of expanding the pie should increase significantly.

The second limitation is due to the design of our payoff schedules, which invited the participants to reach a premature closure on the mandatory problems. As we listed the mandatory problems first and the optional issues afterwards, people proceeded negotiating in order and did not consider “jumping” from one issue to another. Thus, I would suggest some modifications for a follow-up study. First, I argued in the discussion that people might be reluctant to renegotiate an already closed issue because they might feel like breaking a commitment. Therefore, I suggest adding two new options to the payoff schedule: One row of *tentative solutions*, which invites the participants to mark a tempting solution, without committing to this option; and another row called *final solutions*. I hypothesize, that this differentiation will help people to structure their negotiation, but will allow them going back and forth between different issues, as well.

Moreover, I suggest to change the order of the optional issues to further stimulate the negotiation of several different issues at a time and to avoid premature closures. Thus, one negotiator could see the optional issues in the order A, B and C and the other negotiator in the order of B, C and A, for instance.

Another aspect that could explain the partially missing confirmation of our hypothesis, is that the optional issues created inequality, which is perceived quite negatively by the individuals, as we all prefer in general equality and consider equal splits

as the fairest possible solution (Bazerman, Blount & Loewenstein, 1995). People might have perceived such a split as not possible in this negotiation (at least not at first sight) and were thus reluctant to engage in searching for a fair solution through value creation. We chose this unequal design on purpose, in order to manipulate the benefit condition. The problem is, that the participants never reversed their decision on the mandatory issues and therefore were reluctant to the created inequality.

When it comes to the investigation of gender in negotiations and expanding the pie, there was not enough information to interpret accurately some of the findings. First of all, I would suggest to add an equal-power setting, in order to really be able to compare the interplay of power asymmetry and gender. This would make the design quite complicated and big, therefore I would probably forgo the equal gender conditions. In order to further investigate the observed greater resistance to grant points to powerful women than to grant it to powerful men, a follow-up study should add some items to the post-negotiation questionnaire about the perceived difficulty to reach an agreement, thus exploring, if women actually perceive more resistance during the negotiation than men. This information could then be compared to the intentions of granting points or not.

Practical and Theoretical Implications

So far, this study adds to the growing body of research in negotiation the evidence that, even in a negotiation setting designed to increase the chances of satisfactory outcomes for both negotiators, men and women systematically fail in perceiving and distributing the whole value a negotiation potentially contains. The mandatory-optional issue paradigm, did not help people to overcome the fixed-pie perception. Thus, structuring a negotiation with the factual possibility to go beyond mere logrolling is not enough to engage people in

thinking creatively and changing the usual negotiation pattern. This study suggests furthermore, that the fixed-pie bias can be even enhanced by power asymmetry and does not seem to be influenced significantly by gender differences. Leaders, as well as followers, prefer to let value on the table than to make a sacrifice at some point and claim this value afterwards in another contentious issue. Therefore, a follow-up study should confirm if this structure, improved as suggested above, could be used in the future to support people in overcoming the fixed-pie perception and achieve more satisfactory agreements distributing the whole pie. Furthermore, it would be probably useful, as shown by Steinel, Abele, and De Dreu (2007), to advise people first in how to use this paradigm effectively and let them gather some experience with it, to significantly improve their performance in negotiations. Only offering a negotiation structure that facilitates in theory the value creation, is in this form not enough.

The current research also contributes to the literature of gender in negotiations in several aspects. First of all, the results suggest carefully, that women perform equally to their male counterparts, at least when the variable of power is controlled. Moreover, this research discovered, that powerful women are probably facing more resistance when negotiating with subordinates, as they seem to push their preferences more and are less willing to grant value to their female bosses than to their male bosses. Last but not least, the results propose, that there are no gender differences in value creation in negotiations. Men and women are equally affected by the fixed-pie bias.

A practical advice in order to ensure the equality of performance in negotiations between men and women, would be therefore, to train women in rather powerless positions, which have to negotiate with a powerful man, in transmitting a powerful appearance, e.g. through power postures as suggested by Cuddy, Wilmuth, Yap and Carney (2015) in order

to try to control the power variable. Cuddy et al. showed that, preparing a stressful, power-asymmetrical situation with a “high-power pose”, leads to the consequence, that the powerful person judges the powerless better in terms of self-confidence, captivity and enthusiasm. In other words, the low power person is perceived as more powerful.

Conclusions

The research question of this study was, if power asymmetry and gender differences have a significant effect on expanding the pie in negotiations. The current research suggests, that powerless and powerful people, women and men, all fail in expanding the pie through value creation. On average, neither of them claimed all the potential value for themselves, nor did they try to reach something more valuable and satisfactory than a simple compromise. This means, on the one hand, that artificial frameworks as the mandatory-optional issues paradigm, designed to facilitate the value creation, do not increase the propensity of expanding the pie and on the other hand, that power asymmetry seems to have no real impact on the value creation, besides enforcing the fixed pie perception. Last but not least, no gender differences were observed in the negotiation performance when controlling for power. But this study does suggest, that women seem to fight harder in negotiations to achieve the same outcome as their male counterparts. Thus, equal performance, when it comes to value creation in negotiations, under controlled power conditions can be seen as a silver lining in the struggle for gender equality in the work force.

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Table 1. Overview of the point allocation for the mandatory problems to the boss and the subordinate.

| Problem | Possible solutions | Points | |
|--------------------------------------|--------------------------------------|-------------|------|
| | | Subordinate | Boss |
| Work shifts | | | |
| (Compatible Issue) | 6 hours | 0 | -1 |
| | 8hours | +1 | +1 |
| | 9.5 hours | -1 | 0 |
| Day Closed | Closed on Saturday | +2 | 0 |
| (1 st Integrative Issue) | Closed on Sunday | 0 | +4 |
| | Closed on Monday | +1 | +2 |
| | | | |
| Division of tips | Share all the tips with everyone | 0 | +4 |
| (1 st Distributive Issue) | Share 75%, keep the rest for oneself | +1 | +3 |
| | Share 50%, keep the rest for oneself | +2 | +2 |
| | Share 25%, keep the rest for oneself | +3 | +1 |
| | Keep all the tips for oneself | +4 | 0 |
| | | | |
| | | | |
| Sandwiches | Only vegetarian | +4 | 0 |
| (2 nd Integrative Issue) | Vegetarian and fish | +2 | +1 |
| | Vegetarian, fish and meat | 0 | +2 |

| | | | |
|-------------------------|---------------|-------------------------|-------|
| Cleaning Schedule | Hire somebody | +4 | 0 |
| (2 nd Issue) | Distributive | Clean after night shift | 0 +4 |
| | | Clean before day shift | +1 +1 |

Table 2. Overview of the point allocation of the optional issues in both benefit conditions.

| Optional problem | Possible solutions | Points for Boss | | Points for Subordinate | |
|------------------|---------------------|-----------------|-------------------|------------------------|-------------------|
| | | Leader benefit | Leader sacrifices | Leader benefit | Leader sacrifices |
| Ingredients | No agreement about | 0 | 0 | 0 | 0 |
| | Option A | +2 | -1 | -1 | +2 |
| | Option B | +4 | -2 | -2 | +4 |
| Stroopwaffles | No agreement about | 0 | 0 | 0 | 0 |
| | Stroopwaffles | +2 | -1 | -1 | +2 |
| | Option A | +4 | -2 | -2 | +4 |
| | Option B | | | | |
| Fresh Juice | Same as above (...) | (...) | (...) | (...) | (...) |
| | (...) | | | | |



Figure 1. The interaction of the benefit conditions with the power role on the individual outcome.

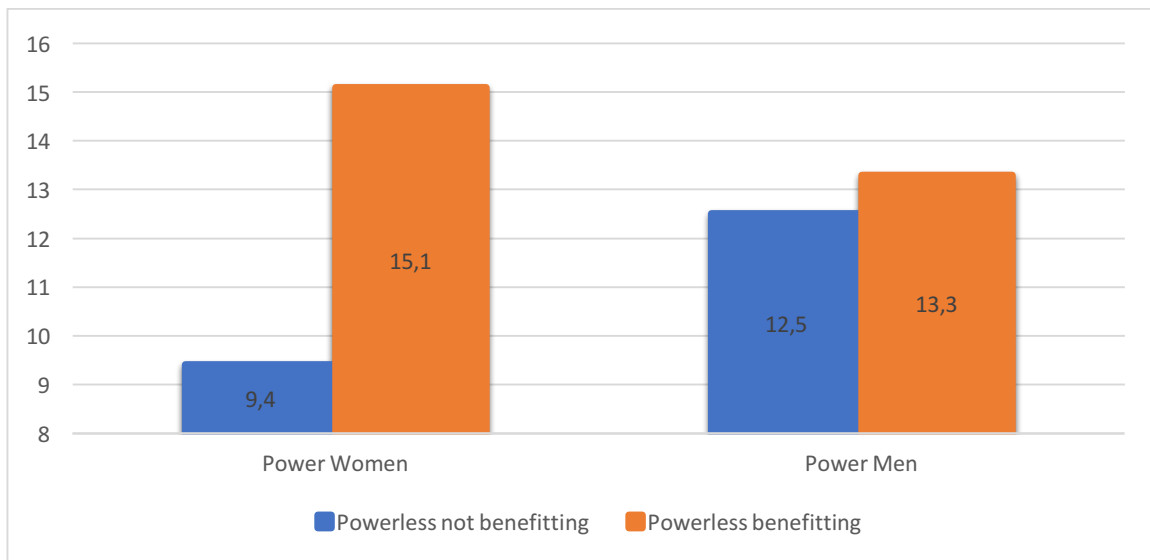



Figure 2. The interaction between the benefit condition and the gender of the powerful on the wish of the powerless to add additional issues.

Appendix.



**Universiteit
Leiden**

THE SANDWICH BAR “Yummy!”

Group number

Version B+ 20161220 B-

Mark/Mary and Louis/Lisa are running a sandwich bar together. **You are Mark/Mary and you are the boss of the sandwich bar.**

In order to ensure a smoothly going business you have a meeting where you discuss a number of problems. **You must agree on a solution for the following five problems**, otherwise, you cannot run the bar together:

- **Work shifts:** How long are the work shifts?
- **Day closed:** On which day should the bar be closed?
- **Sandwiches:** Do you sell vegetarian, fish or meat sandwiches?
- **Tips:** How to divide the tips?
- **Cleaning:** Who should clean the bar?

For each of these problems, there are several solutions. You need to reach an agreement for these five problems. This means, you need to select one solution which then holds for both negotiators. **If you cannot agree on a solution for a problem, then you, the boss, have to decide which solution to choose.**

There are three more problems about which you may want to talk. If you want, you can find an agreement on these issues, too. Note, however, that these problems are not necessary to be solved, in order to run the sandwich bar together:

- **Stroopwafels:** Should you sell stroopwafels?
- **Ingredients:** Should you use only certified regional or organic ingredients?
- **Juice:** Should you sell fresh juice?

For each problem, you have a preference for one of the solutions. With each solution, you can earn or lose a certain amount of points.

Take a look at laminated sheet: You prefer the solutions where you earn most points (i.e., the highest black numbers). The negative numbers printed in red indicate an undesirable solution where you lose points.

The aim of this game is to negotiate the best possible agreement for yourself. Your goal therefore is to earn as many total points as possible for yourself. You need to reach an agreement for at least the five urgent problems above, otherwise, you earn no points at all.

Important note: You can talk about everything, but do **not** show the point sheet to Louis/Lisa!

Please answer the questions on the reverse side to make sure that all instructions were clear.

Appendix 1. Example of the instructions for Mark/Mary, the boss.

To make sure that all the instructions were clear, please answer the questions below.

1. How many points do you earn on the issue "work shift" if you agree on a 6h shift?
(Mark the correct answer.)
 - 0 points
 - +1 point (that is, you **earn** one point)
 - 1 point (that is, you **lose** one point)

2. Which solution do you prefer for the problem "Cleaning schedule"?
(In other words, for which solutions would you earn most points?)
 - Hire somebody
 - Cleans after night shift
 - Cleans before day shift

3. For which of the two problems "Day Closed" and "Sandwiches" is it **more important** to find the best possible solution for you?
(In other words, on which of these two problems can you earn more points?)
 - Day Closed
 - Sandwiches
 - Both are equally important to me

4. Who is most powerful in your team?
 - Louis/Lisa
 - Mark/Mary
 - We are equally powerful

You will get a signal to start. You have 20 minutes to negotiate. Good luck!

*After your negotiation, please mark which **solution** you have selected:*

| | |
|---|---|
| <p>Work Shifts</p> <ul style="list-style-type: none"> <input type="checkbox"/> 6 hours <input type="checkbox"/> 8 hours <input type="checkbox"/> 9.5 hours | <p>Cleaning Schedule</p> <ul style="list-style-type: none"> <input type="checkbox"/> Hire somebody <input type="checkbox"/> Clean after night shift <input type="checkbox"/> Clean before day shift |
| <p>Day Closed</p> <ul style="list-style-type: none"> <input type="checkbox"/> Closed on Saturday <input type="checkbox"/> Closed on Sunday <input type="checkbox"/> Closed on Monday | <p>Ingredients</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>No agreement about ingredients</i> <input type="checkbox"/> Regional products <input type="checkbox"/> Only certified organic |
| <p>Division of Tips</p> <ul style="list-style-type: none"> <input type="checkbox"/> Share all the tips with everyone <input type="checkbox"/> Share 75%, keep rest for oneself <input type="checkbox"/> Share 50%, keep rest for oneself <input type="checkbox"/> Share 25%, keep rest for oneself <input type="checkbox"/> Keep all the tips for oneself | <p>Stroopwafels</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>No agreement about stroopwafels</i> <input type="checkbox"/> Sealed stroopwafels <input type="checkbox"/> Fresh stroopwafels |
| <p>Sandwiches</p> <ul style="list-style-type: none"> <input type="checkbox"/> Only vegetarian <input type="checkbox"/> Vegetarian & fish <input type="checkbox"/> Vegetarian, fish & meat | <p>Fresh Juice</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>No agreement about fresh juice</i> <input type="checkbox"/> Fresh orange juice <input type="checkbox"/> Fresh juice of several fruits |

Please continue with the short questionnaire.

Appendix 2. Pre-negotiation questionnaire and form to fill in the agreement for Mark/Mary, the boss.

| Problem | Preference of Louis | Possible solutions: | Points for Louis |
|--------------------------|---|----------------------------------|------------------|
| Work Shifts | <i>You definitely do not want to work 9.5 hours a day because you are a student and combining studying with working is really exhausting. 6-hour shifts would mean you have to work an extra day to earn enough money, which you'd rather not do.</i> | 6 hours | 0 |
| | | 8 hours | +1 |
| | | 9.5 hours | -1 |
| Day Closed | <i>You prefer to close on Saturday, so that you can do your own shopping then. You like working on Monday, because it's a relaxed shift and on Sunday it's even better. Therefore, you don't want to close on Sundays.</i> | Closed on Saturday | +2 |
| | | Closed on Sunday | 0 |
| | | Closed on Monday | +1 |
| Division of Tips | <i>You think it is fair that everybody should keep their own tips, since some shifts are much busier than others and therefore bringing more tips than the quiet shifts. Whoever works busier shifts deserves to get more tips.</i> | Share all the tips with everyone | 0 |
| | | Share 75%, keep rest for oneself | +1 |
| | | Share 50%, keep rest for oneself | +2 |
| | | Share 25%, keep rest for oneself | +3 |
| Sandwiches | <i>You have a strong preference for serving as little meat and fish as possible! You care a lot for animal well-being and believe that vegetarian food is better for the health and for the environment. It is also fashionable and will attract new customers.</i> | Keep all the tips for oneself | +4 |
| | | Only vegetarian | +4 |
| | | Vegetarian & fish | +2 |
| | | Vegetarian, fish & meat | 0 |
| Cleaning Schedule | <i>You work mainly on night shifts, and you don't want to clean afterwards. You think that it is very important that the bar is cleaned professionally, so you want to hire somebody to clean the bar, and you are not willing to do it yourself.</i> | Hire somebody | +4 |
| | | Clean after night shift | 0 |
| | | Clean before day shift | +1 |
| Ingredients | <i>If you run out of an ingredient, you can simply buy whatever you need, without having to look for labels or certificates. The quality of your sandwiches is excellent, so you do not see why to do more effort for certified regional or organic products.</i> | No agreement about ingredients | 0 |
| | | Regional products | -1 |
| | | Only certified organic | -2 |
| Stroopwafels | <i>You prefer to focus on your core business, sandwiches. You don't think that stroopwafels are going to add value. Moreover, baking stroopwafels is too time-consuming for the take-away market you are focusing on.</i> | No agreement about stroopwafels | 0 |
| | | Sealed stroopwafels | -1 |
| | | Fresh stroopwafels | -2 |
| Fresh Juice | <i>You already have bottled juice, and you think that this is enough. Freshly squeezed juice is labor intense, and always having a supply of fresh fruit causes waste.</i> | No agreement about fresh juice | 0 |
| | | Fresh orange juice | -1 |
| | | Fresh juice of several fruits | -2 |

Appendix 3. Example of the payoff schedule; powerless in leader benefits condition.

| Problem | Preference of Mary (the boss) | Possible solutions: | Points for Mary |
|--------------------------|---|----------------------------------|-----------------|
| Work Shifts | <i>Work shifts of 8 hours are most practical, taking the opening hours into consideration. With 8-hour shifts, two people can manage the bar: one works the early shift (usually yourself), the other mainly works late shifts.</i> | 6 hours | -1 |
| | | 8 hours | +1 |
| | | 9.5 hours | 0 |
| Day Closed | <i>You want the bar to be open on Saturday, as you make most profit then. You really want to close on Sunday, because this day has the lowest turnover. Monday would also be an option, as you do not make a lot of money this day either.</i> | Closed on Saturday | 0 |
| | | Closed on Sunday | +4 |
| | | Closed on Monday | +2 |
| Division of Tips | <i>Keeping your own tips is not fair, because late shifts get much more than day shifts. Furthermore, you think that the employees working in the kitchen deserve a fair part of the tips, as well. Therefore, you prefer the tip to be divided up among all.</i> | Share all the tips with everyone | +4 |
| | | Share 75%, keep rest for oneself | +3 |
| | | Share 50%, keep rest for oneself | +2 |
| | | Share 25%, keep rest for oneself | +1 |
| | | Keep all the tips for oneself | 0 |
| Sandwiches | <i>To gain the maximum amount of customers, you would like to offer a great variety of sandwiches, including vegetarian, fish and meat.</i> | Only vegetarian | 0 |
| | | Vegetarian & fish | +1 |
| | | Vegetarian, fish & meat | +2 |
| Cleaning Schedule | <i>You think that the staff should clean the bar, preferably after the night shift (you mainly work on day shifts). In your opinion, it is a waste of money to hire somebody to do that, because the bar is very small and easy to clean.</i> | Hire somebody | 0 |
| | | Clean after night shift | +4 |
| | | Clean before day shift | +1 |
| Ingredients | <i>It is very important for you to only serve certified organic products. This is the best for the environment and also very "en vogue" right now. If not certified organic, then you at least want to use regional products.</i> | No agreement about ingredients | 0 |
| | | Regional products | +2 |
| | | Only certified organic | +4 |
| Stroopwafels | <i>You love Stroopwafels and followed a "how to make Stroopwafels"-course last year so you would enjoy making them fresh in the bar. The smell of freshly baked stroopwafels furthermore attracts people to your bar.</i> | No agreement about stroopwafels | 0 |
| | | Sealed stroopwafels | +2 |
| | | Fresh stroopwafels | +4 |
| Fresh Juice | <i>You make a fresh juice of several fruits for yourself every morning and you think it's very tasty, so you want to offer it to your customers as well.</i> | No agreement about fresh juice | 0 |
| | | Fresh orange juice | +2 |
| | | Fresh juice of several fruits | +4 |

Appendix 4. Example of the payoff schedule; powerful in leader benefits condition.

| Problem | Preference of Lisa | Possible solutions: | Points for Lisa |
|--------------------------|---|----------------------------------|-----------------|
| Work Shifts | <i>You definitely do not want to work 9.5 hours a day because you are a student and combining studying with working is really exhausting. 6-hour shifts would mean you have to work an extra day to earn enough money, which you'd rather not do.</i> | 6 hours | 0 |
| | | 8 hours | +1 |
| | | 9.5 hours | -1 |
| Day Closed | <i>You prefer to close on Saturday, so that you can do your own shopping then. You like working on Monday, because it's a relaxed shift and on Sunday it's even better. Therefore, you don't want to close on Sundays.</i> | Closed on Saturday | +2 |
| | | Closed on Sunday | 0 |
| | | Closed on Monday | +1 |
| Division of Tips | <i>You think it is fair that everybody should keep their own tips, since some shifts are much busier than others and therefore bringing more tips than the quiet shifts. Whoever works busier shifts deserves to get more tips.</i> | Share all the tips with everyone | 0 |
| | | Share 75%, keep rest for oneself | +1 |
| | | Share 50%, keep rest for oneself | +2 |
| | | Share 25%, keep rest for oneself | +3 |
| Sandwiches | <i>You have a strong preference for serving as little meat and fish as possible! You care a lot for animal well-being and believe that vegetarian food is better for the health and for the environment. It is also fashionable and will attract new customers.</i> | Keep all the tips for oneself | +4 |
| | | Only vegetarian | +4 |
| | | Vegetarian & fish | +2 |
| | | Vegetarian, fish & meat | 0 |
| Cleaning Schedule | <i>You work mainly on night shifts, and you don't want to clean afterwards. You think that it is very important that the bar is cleaned professionally, so you want to hire somebody to clean the bar, and you are not willing to do it yourself.</i> | Hire somebody | +4 |
| | | Clean after night shift | 0 |
| | | Clean before day shift | +1 |
| Ingredients | <i>It is very important for you to only serve certified organic products. This is the best for the environment and also very "en vogue" right now. If not certified organic, <u>than</u> you at least want to use regional products.</i> | No agreement about ingredients | 0 |
| | | Regional products | +2 |
| | | Only certified organic | +4 |
| Stroopwafels | <i>You love Stroopwafels and followed a "how to make Stroopwafels"-course last year so you would enjoy making them fresh in the bar. The smell of freshly baked stroopwafels furthermore attracts people to your bar.</i> | No agreement about stroopwafels | 0 |
| | | Sealed stroopwafels | +2 |
| | | Fresh stroopwafels | +4 |
| Fresh Juice | <i>You make a fresh juice of several fruits for yourself every morning and you think it's very tasty, so you want to offer it to your customers as well.</i> | No agreement about fresh juice | 0 |
| | | Fresh orange juice | +2 |
| | | Fresh juice of several fruits | +4 |

Appendix 5. Example of the payoff schedule; powerless in leader sacrifices condition.

| Problem | Preference of Mark (the boss) | Possible solutions: | Points for Mark |
|--------------------------|---|----------------------------------|-----------------|
| Work Shifts | <i>Work shifts of 8 hours are most practical, taking the opening hours into consideration. With 8-hour shifts, two people can manage the bar: one works the early shift (usually yourself), the other mainly works late shifts.</i> | 6 hours | -1 |
| | | 8 hours | +1 |
| | | 9.5 hours | 0 |
| Day Closed | <i>You want the bar to be open on Saturday, as you make most profit then. You really want to close on Sunday, because this day has the lowest turnover. Monday would also be an option, as you do not make a lot of money this day either.</i> | Closed on Saturday | 0 |
| | | Closed on Sunday | +4 |
| | | Closed on Monday | +2 |
| Division of Tips | <i>Keeping your own tips is not fair, because late shifts get much more than day shifts. Furthermore, you think that the employees working in the kitchen deserve a fair part of the tips, as well. Therefore, you prefer the tip to be divided up among all.</i> | Share all the tips with everyone | +4 |
| | | Share 75%, keep rest for oneself | +3 |
| | | Share 50%, keep rest for oneself | +2 |
| | | Share 25%, keep rest for oneself | +1 |
| | | Keep all the tips for oneself | 0 |
| Sandwiches | <i>To gain the maximum amount of customers, you would like to offer a great variety of sandwiches, including vegetarian, fish and meat.</i> | Only vegetarian | 0 |
| | | Vegetarian & fish | +1 |
| | | Vegetarian, fish & meat | +2 |
| Cleaning Schedule | <i>You think that the staff should clean the bar, preferably after the night shift (you mainly work on day shifts). In your opinion, it is a waste of money to hire somebody to do that, because the bar is very small and easy to clean.</i> | Hire somebody | 0 |
| | | Clean after night shift | +4 |
| | | Clean before day shift | +1 |
| Ingredients | <i>If you run out of an ingredient, you can simply buy whatever you need, without having to look for labels or certificates. The quality of your sandwiches is excellent, so you do not see why to do more effort for certified regional or organic products.</i> | No agreement about ingredients | 0 |
| | | Regional products | -1 |
| | | Only certified organic | -2 |
| Stroopwafels | <i>You prefer to focus on your core business, sandwiches. You don't think that stroopwafels are going to add value. Moreover, baking stroopwafels is too time-consuming for the take-away market you are focusing on.</i> | No agreement about stroopwafels | 0 |
| | | Sealed stroopwafels | -1 |
| | | Fresh stroopwafels | -2 |
| Fresh Juice | <i>You already have bottled juice, and you think that this is enough. Freshly squeezed juice is labor intense, and always having a supply of fresh fruit causes waste.</i> | No agreement about fresh juice | 0 |
| | | Fresh orange juice | -1 |
| | | Fresh juice of several fruits | -2 |

Appendix 6. Example of the payoff schedule; powerful in leader sacrifices condition.

Louis

Please answer the following questions after your negotiation.

Group number:

 Purple Blue

| How much do you agree with the following statements? | not at all | | | | | | very much |
|--|------------|---|---|---|---|---|-----------|
| I liked the way we negotiated. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The atmosphere during the negotiation was agreeable. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If I actually worked in the bar, I would like to continue working there. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If I actually worked in the bar, I would consider quitting the job after this negotiation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I considered breaking off the negotiation at some point. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In the negotiation, I found it very important to take <i>the other's interests</i> into account. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In the negotiation, I found it very important to take <i>my own interests</i> into account. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| It was crucial for me that <i>the other</i> gets a good deal as well. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I wanted to achieve an agreement that is satisfying for both of us. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| During the negotiation, I could basically decide whatever I wanted. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In the negotiation, I had a powerful position. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In the negotiation, I was dependent on the other player in order to reach a deal. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I cared about having a trustworthy relationship with the other negotiator. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| During the <u>game</u> I trusted the other. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Everyone got the possibility to voice their opinion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Our team practiced open communication. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I shared information about my true preferences and priority. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I told my counterpart what was important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In negotiations, not telling the whole story is part of the game. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I strategically withheld information. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I gave inaccurate information in order to get a better deal. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| Please indicate how often during the negotiation you acted in ways stated below. | not at all | | | | | | very often |
|---|------------|---|---|---|---|---|------------|
| I gave in to the wishes of the other player. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I adapted to the other party's goals and interests. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I insisted we both give in a little. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I strove whenever possible towards a 50-50 compromise. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I pushed my own point of view. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I searched for gains for myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I fought for a good outcome for myself. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I stood for my own <i>and</i> the other's goals and interests. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I examined everyone's ideas to find the best solution. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I worked out a solution that best served my own as well as the other's interests. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I avoided differences of opinion as much as possible. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I tried to avoid a confrontation with the other. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| <i>How much do you agree with the following statements?</i> | not at all | | | | | | | very much | | | | | | |
|--|------------|---|---|---|---|---|---|-----------|---|---|---|---|---|---|
| I decided in which order we discussed the problems. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I thought we got a better agreement if we solve the important problems instead of talking about <i>stroomwafels</i> , <i>fresh juice</i> and/or <i>ingredients</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I thought we would get a better agreement if we try and find a solution for about <i>stroomwafels</i> , <i>fresh juice</i> and/or <i>ingredients</i> as well. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I listened to the other person's interests before making decisions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I willingly granted points to the other player. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I sacrificed my own points in order to help other player. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I was willing to talk about a problem where I would have lost points. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I rejected to accept a solution for which I lose points (i.e., get minus points). | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I wanted to select a solution for the problem <i>ingredients</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I preferred not to discuss <i>ingredients</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The other person wanted to talk about <i>ingredients</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I wanted to select a solution for the problem <i>stroomwafels</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I preferred not to discuss <i>stroomwafels</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The other person wanted to talk about <i>stroomwafels</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I wanted to select a solution for the problem <i>fresh juice</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I preferred not to discuss <i>fresh juice</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The other person wanted to talk about <i>fresh juice</i> . | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Did you negotiate any of the three problems *stroomwafels*, *fresh juice* and *ingredients*? Yes. No.
 Why? or Why not?

Did you know the person with whom you negotiated before this exercise?

- Yes, this person is my partner/wife/husband/we live together/ we are in a relationship
- Yes, we have been friends or close acquaintances before
- Yes, we met before, but didn't know each other very well
- No, I talked for the first time with this person

I am male female My age is _____ years. My native language is Dutch other: _____

Do you have any remarks or comments?

Thank you very much for participating in this study!

Appendix 7. Post negotiation questionnaire for the role of Louis.