

Department of Behavioural Economics, Erasmus University Rotterdam

The effect of gender priming on economic behaviour

Bachelor Thesis

In this thesis the effect of gender priming on economic decision-making was researched. Data was gathered using a questionnaire with 3 different priming tasks. Questions about 5 different areas of economic behaviour are researched. Eighty-seven people participated in the online experiment. It was found that male stereotype priming had a large and significant effect on the level of Trust a subject had that another person would cooperate. Furthermore a slightly less significant effect of male-priming on Cooperation was found, but the effect of gender priming was not clear in other areas. Further research could be done to test the priming instruments, to search for more results on Trust and to explore the use of same-sex or opposite-sex priming in economic research.

Annikka Lemmens
376396
Supervisor: Yu Gao

Contents

- CONTENTS..... 1**
- INTRODUCTION..... 2**
- LITERATURE REVIEW 3**
 - GENDER..... 4
 - PRIMING..... 7
 - AIM OF THIS STUDY 8
- DATA AND METHODOLOGY 9**
 - EXPERIMENTAL DESIGN 9
 - DATA 13
 - EMPIRICAL MODEL 14
- RESULTS 15**
- FINDINGS PER KEY ELEMENT 20**
- CONCLUSION AND DISCUSSION..... 22**
- BIBLIOGRAPHY 23**
- APPENDIX A 27**
 - QUESTIONNAIRE 27
 - Background questions* 27
 - Priming task*..... 28
 - Economic games*..... 30
 - Check* 33
- APPENDIX B..... 34**
 - TESTS OF ASSUMPTIONS 34
 - LEVENE’S TESTS 35
- APPENDIX C..... 36**
 - INDEPENDENT SAMPLE T-TESTS 36
- APPENDIX D 37**
 - PRIMING TASK CHECK 37

Introduction

Men and women differ from each other. Countless TV-shows, films, magazines, books and jokes are based on that premise. How do these gender differences affect daily life? And more in particular how do they affect economic decision-making? Are these differences insurmountable or can they be overcome? How many of the differences in economic decision-making are based on stereotypical behaviour (the definition of a stereotype can be found on page 7)?

Researchers in economics have looked at gender differences in economic behaviour before, but usually they don't make use of priming subjects. In psychology, many researchers use priming to see if the differences between men and women disappear. They publish studies with catchy titles like: "Where are the gender differences?; Male priming boosts spatial skills in women", "Math is hard!; The effect of gender priming on women's attitudes" and "Think like a man: Effects of Gender Priming on Cognition" (Ortner & Sieverding, 2008; Steele & Ambady, 2006; McGreal, 2012). These researchers find that the gender differences aren't as unconquerable as some people seem to think. In economics, a few researchers will prime subjects with their own gender, but nearly no researchers have primed their subjects with the opposite gender.

This paper will address the question: "*What is the effect of gender priming on economic behaviour?*". This question looks at how subjects' behaviour changes when they are primed, rather than at the original gender differences. Taking this more psychological view, could help broaden the existing economic perspective on gender.

This study will start by first reviewing existing literature on economic behaviour, on gender differences in economic decision-making and on priming. Secondly, hypotheses will be formulated for five key topics of economic behaviour. Afterwards, the questionnaire design used in this study will be reviewed, and the acquired data will be shown. Then the methodology used in this study will be explained. Subsequently, the data will be analysed and the results will be presented and interpreted. Finally, a conclusion and an answer to the research question will be given and some shortcomings of this research and recommendations for further research will be discussed.

Literature Review

Decision making is a subject of great interest for many researchers. What influences (economic) decision making? There are a plethora of theories and every year more studies into decision making are done.

Benjamin, Choi and Fisher (2010, hence forth BCF) looked at the influence of religion on economic decision making. Among other things, they included five different key elements of economic behaviour: Cooperation, Trust, Financial Risk Taking, Time-Preferences and Generosity.

Cooperation is an important factor in daily life. It shows how much people are willing to contribute and work together to achieve common goals. In BCF this concept was tested by using a public goods game. This included assigning each subject to a group of four and endowing him or her with \$1. Subjects could contribute any fraction of their endowment to the laboratory public good. The total amount in the group account was doubled and then distributed evenly among all group members. Subjects were allowed to keep whatever amount they did not contribute. Total group earnings were maximised (at \$2 per group member) if each member contributed his or her entire dollar to the group account. Standard economic theory predicts the dominant strategy to be to not contribute anything. In standard economics the *homo economicus* does not have other-regarding preferences and tries to maximise his own profit. In this particular game that would mean that the private return on a contribution would be –50 per cent, so keeping the entire dollar to himself would be more rational. There is evidence that willingness to contribute to a public goods game in an experiment is correlated with contributing to public goods in the real world. For example, the amount contributed to a laboratory public good was found to be positively correlated with the willingness to contribute money to a local tree-planting organisation outside of the experiment setting (Laury & Taylor, 2008).

Furthermore *Trust* was measured. Trust is when “people expect certain fair or cooperative behaviour of their opponents even when they do not expect to see them again” (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997). BCF measured Trust by first asking the subjects how much they estimated their three teammates in the public goods game would contribute on average, before asking them to contribute themselves. Trust is an important factor in exchanges in daily life. Buying things from unknown sellers or signing contracts between companies all depend on some degree of Trust (Zaheer & Venkatraman, 1995).

Financial Risk Taking includes how risk averse people are when facing choices that differ in payoff and in riskiness, so in the probability of payoff. BCF tested it by asking participants to make six binary choices between \$1 for sure and a 50 per cent chance at a larger amount, ranging from \$1.60 to \$3.60. In all games, including this one, subjects had a chance to be paid out according to their preferences. Standard economic theory predicts that people make rational decisions. This means that if the expected outcome of the lottery is higher than the guaranteed amount, a rational person would opt for the lottery. Risk loving behaviour has been associated with gambling, and risk aversion explains partially why people want insurance (Frank, 2009).

Time-Preferences include how patient people are, and if they are willing to postpone rewards or losses, or if they would rather have them now. It was tested by asking participants to make 12 binary choices between receiving \$10 now and receiving some larger amount one week from now, and another 12 binary choices between receiving \$10 one week from now and receiving some larger amount two weeks from now. The larger delayed amounts ranged from \$10.10 to \$15 (Benjamin,

Choi, & Fisher, 2010). These choices show peoples preferred discount rates and measure their impatience. Impatience is associated with low self-control and discipline. People who discount the future more heavily are more like likely to become addicted (Becker & Murphy, 1988)

Generosity is defined as the level of selflessness people show (Eckel & Grossman, 1998). This shows up in daily life as how much people are willing to give to others, not only in monetary aspects, but in non-monetary aspects as well. Generosity was measured by BCF using a dictator game. The dictator game is a game played between two people. One is the decision maker and the other is recipient. The decision maker receives an amount of money, with the task to decide how much of the money he or she wants to share with the recipient. The recipient does not have a choice. Standard economic theory assumes that people are rational, and profit-maximising. This means that in a dictator game there would be no incentive for the dictator to give any of the money to the recipient, because agents prefer a larger amount of money to a smaller amount of money, and the recipient does not have a choice, so there are no repercussions. The amount that the dictator shares with the recipient is therefore seen as a measure of the dictator's beneficence (Bolton & Katok, 1995). BCF endowed each subject with \$1 and randomly assigned him or her to another participant in the session.

Gender

One of the factors which could influence the way people make economic decisions is gender. Previous research into the influence of gender on decision-making has led to some interesting results. Especially the subjects of risk behaviour, altruism and generosity in relation to gender have been the subjects of many studies.

Differences in cooperative behaviour between men and women have been researched quite extensively. However, no conclusive evidence has been found one way or the other. Brown-Kruse and Hummels (1993) had subjects participate in repeated games with all or nothing allocations of 1 dollar . They found that all-male teams cooperated more frequently than all-female or mixed teams. One of the explanations which they offered for this phenomenon was that the all or nothing allocations left more room for exploitation. Contributions to the public good involve a kind of risk: other group members may not reciprocate, and as a result some subjects may feel as if they have been "played for a sucker" (Ingram & Berger, 1977). If women are more risk averse, this could lead to less Cooperation in an all or nothing public goods game. Nowell & Tinkler (1994) found very different results in their repeated public goods games. This study showed higher Cooperation rates by all-female teams than by mixed-sex or all-male teams. In this study subjects were allowed to invest any number of the 62 tokens that were initially given to them. In a one-shot game with an initial endowment of 5 tokens, women also contributed significantly more than men (Seguino, Stevens, & Lutz, 1996). However, in a repeated game where no information about the behaviour of the other team members was given, women contributed significantly less than men. In this game the opponents were simulated, but first names of the opponents were given to the participants (Sell, Griffith, & Wilson, 1993). Cadsby and Maynes (1998) tested a variation of a public goods game: repeated games with a 25% threshold lever before a return was earned. In their experiment there were only all-female or all-male groups of 10 subjects each. Females initially contributed significantly more than males, but this significance disappeared as the game went on. However, female groups were significantly better able to coordinate around a selected equilibrium. According to Cadbury and Maynes, this seemed related to a tendency of females to behave more like each other throughout the game.

Trust has been researched in different settings, such as in a prisoners' dilemma, and in a trust game setting. This concept in relation to gender has not thoroughly been researched in connection to the public goods game. A basic trust game was introduced by Kreps (1990). In these games player 1 can send all, some or none of his endowment to player 2. The amount is then multiplied, and received by player 2. Player 2 can return as much or as little of the money as he or she wants. Trust would then be shown by player 1, if this player sends some money to player 2. The trust would be appropriate if player 2 reciprocates. Studies of trust games in relation to gender find inconsistent results. Cox and Deck (2006) found that the proportion of women who sent money to player 2 varied from 64 to 32 per cent over a 32% range, depending on the conditions of the experiment. For men this was a proportion of 55 per cent to 35 per cent over a 20% range. The conditions that were varied were the amount of money available, the social distance of the experiment and the ability of the second player to respond. In another study, where the participant either knew or did not know the gender-specific first name of their opponent, it was concluded that women were more responsive to knowing the gender of their counterpart than men (Buchan, Croson, & Solnick, 2008). Eckel and Wilson (2004) showed some subjects a picture of their counterpart, or just gave them written information. Women were more likely to trust someone when they had a photo, but less likely to trust someone when they just had written information. Some authors speculate that the trust game setting confounds trust and risk preferences, leading to skewed results, where more risk averse people are seen as less trusting (Croson & Gneezy, 2009).

In the prisoners' dilemma setting Orbell, Dawes and Schwartz-Shea (1994) looked for the answer to the question "Does the gender of a potential partner serve as a basis for Trust and for trusting behaviour?". They found that women were trusted to cooperate more often than men, and that both males and females held this equally. The research showed no difference in trustworthiness between males and females.

In situations concerning financial risk, women tend to be consistently more risk averse on average than men (Eckel & Grossman, 2008). Tests of Financial Risk Taking can be done in different ways. These tests can be abstract gamble experiments or contextual environment experiments, and they can be either in the "gain domain" or in the "loss domain". The gain domain means that the subject can only win something, while in the loss domain earlier earnings are at stake. Eckel & Grossman tested risk behaviour using two different abstract frames in 2003. In the first frame, subjects earned a fixed sum for filling in a survey, with that money being at risk in the subsequent gamble choices. In the second frame it was tested by having positive payoff amounts for the gambles. The first frame belongs to the loss domain, while the second frame belongs to the gain domain. There was no significant difference between the two frames, women always were more risk averse than men (Eckel & Grossman, 2003). Interestingly enough, subjects consistently overestimated the risk aversion of others, especially that of women. Men in particular overestimated the level of women's risk aversion. Other researchers have found females to be more risk averse in the abstract gain domain than men as well, for example Brinig in 1995 who tested risk aversion in elementary school students, high school students and graduate education (Brinig, 1995). Levin, Snyder and Chapman (1988), who measured risk-taking as how many of the 18 proposed gambles a subject was prepared to take, found women to be more risk averse as well. Holt and Laury (2002) split up the experiment in low payoffs or high payoffs, and found that women were more risk averse than men when it came to the low payoffs, when the payoffs were higher no significant differences appeared. Some studies found that in the abstract loss domain, men were more risk averse (Schubert, Gysler, Brown, &

Brachinger, 1999). Schubert et al. used a “Becker-DeGroot-Marshcak” incentive, a highly criticised method which is known for being quite difficult and sometimes confusing for subjects. Moore and Eckel (2003) also found men to be more risk averse in the abstract loss domain, but not in the gain domain. They added more complexity to the abstract gamble experiments by adding a level of ambiguity in risk and in payoff. These last two findings could mean that men are more ambiguity averse than women, not more risk averse.

When it comes to tests in the contextual environment, results are slightly less consistent than in the abstract domain. Powell and Ansic (1997) found that women are more risk averse than males, irrespective of which context they used in the experiment. In this case the context was the level of familiarity with the presented task and how the task was framed. The context also included the level of costs involved with making a decision and it included a degree of uncertainty about the nature and type of probability distribution underlying a risky situation. Men and women tended to adopt different strategies to handle financial decision making, however these strategies did not seem to have a significant impact on the ability to perform (Powell & Ansic, 1997). Schubert et al. didn't find significant differences in risk aversion when using investment and insurance lotteries in 1999 (Schubert, Gysler, Brown, & Brachinger, 1999). In 2000 the same researchers added more ambiguity to the experiments, this did not change the results that they found a year earlier (Schubert, Gysler, Brown, & Brachinger, 2000). In another study Gysler, Kruse, and Schubert (2002) made subjects first fill in how much knowledge of financial markets they had, how familiar they were with investing, and how confident they were in their own competence. Afterwards they did an experiment in the contextual gain domain, and controlled for the competence and confidence of the subjects. After adding these controls, men and women did not differ significantly from each other, suggesting that competence and confidence matter more than gender.

When it comes to Time-Preferences, only relatively few studies have been done. There is not yet a robust outcome for differences in Time-Preferences between men and women. Very recently, in 2014, Dittrich and Leipold did a study into gender differences in Time-Preferences. They found that more men than women chose an immediate payment rather than a larger sum later and this impatience of men was higher for medium interest rates of the option in the future (Dittrich & Leipold, 2014). There is also evidence that time inconsistency is more salient among men than among women (Prince & Shawhan, 2011). Time inconsistency means that someone's preferred option from among a set of consumption streams changes as a result of a change in their reference point in time. This leads to difficulty with self-discipline and to people making choices with long-term costs or risks against their own prior wishes (Prince & Shawhan, 2011). Time-inconsistency will influence inter-temporal choices.

Selflessness and Generosity in relation to gender are much researched topics. Studies using the dictator game have had some mixed results. Bolton & Katok (1995) did a study with relatively little anonymity. They had both one-shot games and repeated games. The subjects had a different number of choices, depending on the game. They had either two choices: giving nothing away or giving half away or they had 6 choices, with a maximum of giving 50 per cent away. Men and women did not significantly differ in the amount that they chose to give away. In 1998 Eckel & Grossman did a double anonymous dictator game, in which the dictators could choose to give away entire dollar amounts. They found that women on average donated twice as much to their anonymous partners as men did. Eckel & Grossman had already done a study into fairness in relation to gender before

(Eckel & Grossman, 1996). To study fairness, an adaptation of the dictator game was used: a “punishment game”. In this game the dictator could choose to split a larger amount of money with a “bad” partner, or a smaller amount of money with a “good” partner, the subjects picked their partner and the accompanying payoff simultaneously. Choosing the bad partner would maximise the subjects own profit, while choosing the good/nice partner decreased profit for the subject. They found that in this setting women’s behaviour was affected more strongly by the relative price of fairness than men’s. Men’s demand for fairness was highly inelastic. Andreoni & Vesterlund (2001) did another variation of the dictator game. In this study the subjects had to make 8 choices with different budgets and different prices for altruism. It was found that women were more concerned with equalising earnings between the parties, while men were more concerned with maximising efficiency. When the price of giving decreased, men began to give higher amounts than women. Some studies on the effect of the gender of the recipient have also been done. Dufwenberg & Muren (2006) told their subjects that their partner was either a randomly selected male student in the course or a randomly selected female student in the course. This led to no significant differences between men and women. Ben-Ner, Kong and Putterman (2004), however, found that women gave less to other women, but the amount given by men and women did not differ significantly if the gender of the recipient was unknown. The gender of the recipient never influenced the decisions of male participants significantly. This study also gave supporting evidence that women are more sensitive to the social context of the experiment than men. The dictator game has also been played by children in a study by Houser and Schunk (2007) In this study, girls and boys aged 8 to 10 got the task to share 20 M&Ms with another child. Girls tended to offer more to boys than to other girls, while boys’ offers did not depend on the gender of the recipient.

Priming

Priming can elicit a certain type of behaviour from someone, by subtly reminding them of a category of people, or subtly stimulating certain feelings or mind sets. This is a technique more often used in psychological studies than in economic studies. Priming a social category can even lead to stereotype-consistent behaviour of subjects that are not a part of that social group, for example students walked slower after being primed with stereotypes about the elderly (Steele & Ambady, 2006). A stereotype for this purpose can be defined as a socially shared set of beliefs about traits that are characteristic of members of a social category (Greenwald & Banaji, 1995). Dijksterhuis and Bargh (2001) have argued the perception-behaviour link, which can be explained as: acting in accordance to stereotypes, even if you’re not inherently part of that social category, stems from people’s instinctive tendency to imitate others.

This means that priming women with a female category or with a male category will have different effects, the same goes for priming men with either female or male categories. Research found that, when primed in a male condition, women perform just as well on a spatial task as men, (Ortner & Sieverding, 2008). When primed in a female condition, however, women severely underperformed when compared to the men, but men’s performance went down as well when they were primed in a female condition. Ortner & Sieverding achieved this priming by giving out texts written about one day in the life of a stereotypical male or a stereotypical female. Afterwards, Ortner & Sieverding asked their subjects to write down adjectives which would describe the people in the texts. This entire task was captioned as a “task to measure the ability to put oneself in someone else’s position” (Ortner & Sieverding, 2008). These researchers had no treatment group, only people primed in either male, or female condition.

Most research just looks at amplifying people's own gender identity, so priming women in a female condition and men in a male condition. This can for example be done by asking participants questions about their living conditions, so if they live in a same-sex household and if they prefer mixed-sex or same-sex living (Shih, Pittinsky, & Ambady, 1999). These questions did indeed make the participants' gender identity salient. To give subjects in the control group a "neutral" task the researchers asked questions about if the subjects lived on or off campus, if they were satisfied with their telephone service and how much they would be willing to pay for cable television. Giving the control group a task as well was done to keep the amount of effort exerted by both subjects in the treatment and the control group the same. This survey for inducing gender salience has been quite a common method afterwards, for example it was used by Schmader, by Steele & Ambady, and by McGlone & Aronson (Schmader, 2002; Steele & Ambady, 2006; McGlone & Aronson, 2006).

Another way of making people's gender identity salient was used by Steele and Ambady in their study in 2006. Their priming task consisted of a vigilance task, designed to subliminally present participants with the concept "female" or the concept "male" based on guidelines by Bargh and Chartrand (2002). The subjects were asked to focus on a cross on a PC screen, and they were asked to identify whether a flash they saw on screen appeared to the left or to the right of this cross. The flash consisted of a stereotypical word followed immediately by a string of Xs. These Xs were shown to make people unaware that first a word was shown. This word and the string of Xs were each presented for a maximum of 80ms (Steele & Ambady, 2006). The words used were chosen very carefully, and based on a list by Dijksterhuis & Corneille (2005). Again this manner of priming was found to be effective at making people's gender identity salient.

Other ways of inducing gender salience include: placing subjects in groups which are either male dominated or female dominated (Abrams, Thomas, & Hogg, 1990). The people in the minority will identify more with their own gender in these scenarios, thus boosting gender salience.

Aim of this study

Now that previous research on the topic of economic behaviour in relation to gender has been discussed, and which effects gender priming can have on subjects has been outlined, hypotheses about the five key elements of economic behaviour will be formulated. These hypotheses will help provide an answer to the research question: *"What is the effect of gender priming on economic behaviour?"*

Financial Risk Taking

Many studies have shown that females in general are more risk averse than males. According to Powell & Ansic, females are consistently risk averse regardless of context (Powell & Ansic, 1997). The female prime will therefore increase risk averseness, while the male prime will increase risk taking.

Time-Preferences

The study by Dittrich and Leipold in 2014 has shown that women are in general more patient than men. The associated hypothesis is: the female prime will increase patience, while the male prime will increase impatience.

Cooperation

Based on the one shot game experiment by Seguíno, Stevens, & Lutz in 1996, females tended to invest more in the public good than men. Therefore, using a female prime will stimulate Cooperation, while using a male prime will decrease the Cooperation rate.

Trust

The results of Cox & Deck in 2006 showed that women were slightly more trusting than men in a Trust game setting. This leads to the hypothesis that using a female prime will stimulate Trust in others, while using a male prime will decrease the Trust subjects have in others.

Generosity

A study which had anonymous receivers showed significant differences between the amount given by men and by women (Eckel & Grossman, 1998). Hypothesised is: The female prime will increase Generosity, while the male prime will decrease Generosity.

Data and Methodology

Experimental design

Data for this research has been acquired using a questionnaire. This questionnaire consisted of four different parts: a general part about background information, a part that includes a priming task, a part which consisted of the different economic games, and finally, a part with one question that tested whether or not the subject knew what the topic of interest was. This final question was asked to avoid estimating treatment effects that are driven by experimenter demand effects (Benjamin, Choi, & Fisher, 2010). These effects occur when a subject becomes aware what the topic of interest is, and starts to act in way as if to be “helpful” for the researchers, by for example giving more stereotypical answers. It can also go the other way, with people behaving a-typical on purpose. The entire questionnaire can be found in *Appendix A*.

The questionnaire was accessible online, and the link was put in different Facebook groups. This will most likely lead to a relatively homogenous population, as these are all Facebook groups with mainly students in them.

Key elements of the questionnaire will now be explained. First, in the background questions: level of education, age, gender, nationality, the number of inhabitants the city the participant lives in has, religion and number of siblings were asked. The last three served as decoy questions, especially the number of inhabitants and the number of siblings are not expected to influence the participants' economic behaviour. Gender was of course the most important question here. For nationality only Dutch and non-Dutch served as answer categories, this because non-Dutch people could have a different view on gender than the Dutch population. Most of the participants were expected to be Dutch. Education could possibly influence how well people understood the questions, this is why it was added. Research has found that the way the genders are viewed has developed the last century. For example, there has been a considerable increase in the proportion of women managers in the US from 21% in 1976 to 46% in 1999, and there has been “a call for feminine leadership” to capitalise on this increase (Powell, Butterfield, & Parent, 2002). There has also been less emphasis on managers needing to have male characteristics. Furthermore, widely spread commercials involving men and women have increasingly placed women in a different role. From the 1950s to the 1980s women

have increasingly been depicted in more job-related activities and more diverse roles in commercials (Allan & Coltrane, 1996). This means that people grow up with a different perspective on gender now, than they did 50 years ago. Therefore age could influence ideas about gender as well, so this is an important factor.

After the background questions, the priming task was presented. This priming task was either a neutral one, one that would activate male stereotypes, or one that activated female stereotypes. Which task a subject would receive depended on the gender the subject filled in in the background questions. All subjects were randomly divided into either the control group or one of the treatment groups. 1/3 of all male participants were put in the neutral group, 1/3 in the male-primed one and the last 1/3 were put in the female-primed one. For the female participants division into control or treatment groups happened the same way.

The priming task which was used in this research was based on the example of Ortner & Sieverding (2008). This is what they described in their research: *“For stereotype activation, two texts about a day in the life of a man and a woman were designed, including typical gender stereotypes. Based on the cross-cultural studies from Williams and Best (1990), adjectives and characteristics typically seen for each gender were used and embedded into the two different texts covering half a standard page. Only positive adjectives were used to avoid negative feelings and perceptions of the persons described within the texts. The text of the female gender-stereotype activating-task dealt with a day in the life of a “typical woman:” she is described as someone who takes care of her family; works part time; shows herself to be insightful, helpful, and agreeable; and meets friends for a chat in a café and often day-dreams. The male gender-stereotype activating-task dealt with characteristics that are typically associated with men: the protagonist is, for example, described as a self-confident and tough-minded person, who drives a motorbike, works in a leading position and reprimands assistants, takes risks, and does weight training after work.”* The texts were handed out as “a task to measure the ability to put oneself in someone else’s position.” The question posed after the text was: “If you were the person described in the text, which adjectives would you use to describe yourself?”.

The texts which were written for the priming task in this study can be found in the questionnaire in *Appendix A*. For this research not only female and male texts were written, also a neutral text about a city was designed. In the texts used in this survey, the names used for the protagonists will be Linda and Dennis, as these were both the second most popular names in the Netherlands in 1985, and they are both 30 years old (Meertens Instituut). The first most popular names were both biblical names, which could lead to religious connotations, and this research is not about religion. Linda and Dennis both have a child, who was left genderless, because this text is about Dennis and Linda. In the male text Dennis plays tennis with his child, because this is an activity which doesn’t have gender connotations, unlike football, baseball or ballet for example. After reading the texts, the subjects had to answer some questions about them. A text of similar length about a city was also provided for the neutral category. The city was described very vaguely on purpose, the text didn’t provide a name or any numerical facts about the city. This text wasn’t meant to prime anyone as it was used to create a control group, but it was supposed to give a similar kind of length and intensity to the survey. This way the non-primed group also had to spent time reading texts and answering similar kinds of questions to the two primed groups.

The task itself wasn't captioned with "a task to measure the ability to put oneself in someone else's position", since this would mean giving the subjects false information, which is frowned upon in behavioural economics (Croson, 2005), instead "Could you please read this text and answer the questions afterwards?" was asked. Two questions about the text were asked, to see how well the subjects read the text. Then a question about the protagonist/city was asked, in this question subjects could tick all the adjectives which they thought were applicable for the main character/city. These words included the typical male and female adjectives mentioned by Ortner & Sieverding. The time spent on the page with the priming task was recorded by the survey software, to see if subjects actually took the time to read the texts.

The priming task by Ortner & Sieverding was most appropriate in this online questionnaire, since the purpose of this research is not only to look at the gender identity people already have, but also at the effect of priming people with the opposite gender identity. Most other priming examples mentioned in the literature review only made the existing gender identity salient, which could not be used for this purpose. The only other mentioned priming instrument which could be used to make the opposite gender salient was the one that flashed stereotypical words. This method was not useable for this study. The reason it wasn't useable is because it makes use of expensive software and it would mean that all subjects needed to be in a laboratory to fill in the questionnaire. This wasn't feasible for a bachelor thesis.

For the economic games the design by BCF was followed as much as possible. Sometimes fewer questions were asked, to keep the survey from becoming too large, which could lead to unwillingness to fill in the questionnaire.

Some payoff amounts were changed as well. BCF paid out their subjects, whereas in this research this was not done. Paying subjects according to their choices is a much preferred practice in economics. It is sometimes even called critical to the validity of an experiment and the objective of testing the theory being addressed (Croson, 2005). However, because this is a bachelor thesis without any funding, paying out subjects was not an option. In psychology experiments, paying out subjects is done less often, compared to economic experiments. It has also been said that data that has been acquired without actual payment can be considered data like any other, if you take into account the motivations of the subjects including honest reporting, impression management and other factors while interpreting these results (Croson, 2005).

In this research, higher hypothetical payoffs were used than in BCF, as this research isn't limited by a budget. Offering very low compensations for participating in these experiments could potentially even be harmful, because this means that crowding out of intrinsic motivation could take place (Gneezy & Rustichini, 2000). The amount that is paid out has a large effect on judgment and decision tasks, and a smaller effect on games and markets (Camerer & Hogarth, 1999) Offering higher (hypothetical) payoffs can lead to differences in behaviour. For example, Sefton found that in ultimatum games, subjects on average allocated approximately 50 per cent less to the second-mover when going from no stakes to \$5 stakes (Sefton, 1992). Therefore, using higher stakes in this research could make preferences more clear than using lower stakes.

Before the questions about economic behaviour started, the participants were told: "It's important to keep in mind that there are no right or wrong answers here. Which choice you make is a matter of personal preference."

BCF elicited Financial Risk Taking behaviour by first asking 6 binary questions with small stakes, and then 6 binary questions with high stakes. In the current research only the high stakes questions were asked, to keep the survey a bit smaller. The first option in the question was always €100 with certainty, the second option got gradually higher.

Time-Preferences were measured by BCF by giving subjects 24 questions. Again fewer questions were asked in this research, to keep the survey shorter. Subjects were asked to make 6 choices between an amount now or a week later, and 6 choices between a week and two weeks later. According to standard economic theory, the choices made by participants in these two sets of questions should be the same, as preferences are assumed to be consistent over time. However, some behavioural economic researchers have found that this, supposedly irrelevant way of posing the question, in fact changed the way people answered (Reiss, 2013). Compared to BCF, the payoff amounts in this survey are 10 times higher. Again the first option in the binary choice was always an amount of €100.

After the Time-Preferences, Cooperation was measured. This was done by playing a public goods game. The explanation of the public goods game was clarified by using diagrams of the two stages of the game. The 10 options the subjects could pick varied between €0 and €10, whereas in BCF, subjects had 10 options between \$0 and \$1.

Then a question about Trust was asked in the form of: "I hope to receive 50 responses, how much do you think the other respondents will contribute on average?" Subjects had the same options as in the Cooperation question. The question was asked this way to make subjects aware that they were part of a certain group. Asking "What do you expect people to contribute in general?" was too vague. In BCF, the subjects were asked how much their teammates would contribute, which specifies a very clear group. Of course this could not be done the same way in this online survey, since the subjects had no clear teammates. By specifying the amount of responses hoped to receive, the gender of these "teammates" was left unspecified. This means that the subjects did not base their trust decision on the gender of their teammates.

The final game played was a dictator game. Many dictator games in relation to gender have looked at decisions the dictator makes in connection to the gender of the recipient. This study will look at decisions made when the recipient is of unknown gender.

The design of this game is similar to the 1 shot game done by Bolton & Katok in 1995 and the design of BCF. A difference was that in this survey it was made possible to give total euro amounts between €0 and €10 like in Eckel & Grossman (1998), whereas Bolton & Katok gave percentages up to 50% of the total amount and BCF let the participants choose amounts between \$0 and \$1. The options were always formulated in a way which showed participants not only the amount they would hypothetically receive themselves, but also the amount the receiver would get.

The last question of the survey was a check-up question. "What do you think the aim of this study is? If you don't know, you can leave this blank." After this question, the subjects were thanked for participating.

Data

87 people filled in the questionnaire. The respondents that didn't answer any of the questions about the economic games are left out of the data. This means that there are 83 (partially) answered questionnaires left, of which 73 were completely filled in.

Average time spent on the female priming task was 48.162 seconds, on the male priming task was 56.203 seconds, and on the neutral priming task was 46.568 seconds. The questions to check if people read the texts carefully were answered wrongly by some subjects. If the participants didn't read the text, this could mean that they weren't primed. People who answered both questions about the text wrongly are therefore excluded from the results. One person for example spent only 4 seconds on the female priming task and answered both questions wrongly. This person is regarded as non-primed and therefore doesn't provide useful data. People who answered one question wrongly, but spent an average amount or a larger amount of time on the priming task, and gave stereotypical adjectives in the adjectives question are still included in the data. These people did most likely read the text, and did have the stereotypical figure in mind before starting the games. One person from the female-primed group was excluded, and one from the male-primed group. Of the control group no one was excluded. Even if these subjects didn't read the neutral priming text carefully, it is still assumed that they aren't primed with a gender identity. Therefore, not reading the text carefully should not influence their results. For the analysis this means that there are still 81 (partially) filled in responses left.

One person figured out what the topic of this research was, this person answered the last check-up question correctly, and these responses will therefore be left out. Leaving these answers out was done to make sure that results weren't driven by experimenter demand effects, as mentioned before. Finally then, there are 80 (partially) filled in responses left to analyse.

To check if the treatment and the control groups are in fact comparable, independent samples t-tests were performed on the means of the background questions. These tests compare the treatment groups to the control group and to each other. If the p-values of these tests are above 0.05, this means that the groups do not significantly differ from each other when it comes to background characteristics. This would mean that it will not be a problem to compare these groups to each other when it comes to the variables of interest.

Table 1: independent sample t-tests background statistics

	Female-primed	Male-primed	Neutral	female-primed vs neutral	male-primed vs neutral	male-primed vs female-primed
	means	means	means	p-value t-test	p-value t-test	p-value t-test
Education	4.50	4.78	4.60	0.687	0.402	0.200
Gender	1.64	1.59	1.64	0.983	0.732	0.708
Age	26.3	23.15	24.08	0.272	0.554	0.082
Nationality	1.14	1.11	1.24	0.377	0.234	0.730
Inhabitants	3.75	3.67	4.12	0.496	0.409	0.742

Religion	4.57	4.37	4.48	0.884	0.868	0.870
Siblings	2.57	2.56	2.64	0.846	0.790	0.744
N-value	28	27	25			

For the variable nationality in the t-test between the male-primed and the control group and for the variables education and age in the t-tests between the male-primed and the female-primed group, the Levene's test gave significant results, this means that the variances are not equal. Therefore the p-values for the test-statistic for "equal variances not assumed" are reported in the Table for these variables.

As can be concluded from Table 1, the treatment groups do not differ significantly from the control group, or from each other. All p-values in the t-tests are above 0.05. This means that the randomisation of participants into the groups worked well.

Empirical model

To find out the influence of gender priming on the way people make economic decisions, multiple Ordinary Least Squares regressions will be done. These regressions are based on the research by BCF and will have a general form of:

$$Y_i = \beta_0 + \beta_1 * dummy_maleprimed + \beta_2 * dummy_femaleprimed + \varepsilon_i$$

The independent variables of interest are the dummy variables for primed with a male stereotype and for primed with a female stereotype. The default will be the neutral primed control group. The R-squareds of the regressions will be looked at to see if the model has explanatory power.

The dependent variables will be the different outcomes for the five key topics of economic behaviour as described in the literature review. The outcome variable for risk will be the minimum risk premium. The minimum risk premium is the expected return offered by the gamble in excess of the risk-free return. This can be calculated using the formula:

$$risk\ premium = \frac{pay\ off * probability - 100}{100}$$

For Time-Preferences the minimum gross interest rate per week that a subject requires to choose the later payment will be the dependent variable. The minimum interest rate per week for can be calculated using:

$$interest\ rate = \frac{pay\ off_{waiting}}{100} - 1$$

The minimum gross interest rate per week that a subject requires will be the average of the two calculated interest rates based on the 12 questions about Time-Preferences. For Cooperation the outcome variable will be the amount donated in the public good game. For Trust this will be the amount of money people expect others to donate. And finally, for Generosity the dependent variable will be the amount which a subject donates to the other player.

To specify the model more and to control for unobserved influences, control variables will be added to these general regressions. These control variables will be age, education level, Dutch/non-Dutch and gender. Some of these variables will be added as dummy variables, considering that these are

categorical variables, and can't be added to an OLS-regression if they aren't coded as dummies. The regressions will also be done for the female part of the surveyed population and the male part separately, to see if men and women are influenced to a different extent.

To judge if the OLS regression fits the data certain assumptions need to be tested. These assumptions are: no influential outliers, homoscedasticity, and normality of the residuals. To test for homoscedasticity, residual plots in SPSS will be made. At the same time Levene's tests will be done to look at variance between groups. To test for normality and possible outliers, histograms and normal probability plots will be used. These tests can be found in *Appendix B*.

Additionally, independent sample t-tests will be performed to see if the average outcomes between the control and treatment groups are indeed significantly different. Additional t-tests will be done to compare the means of the outcome variables between men and women, to see if the genders differed from each other regardless of the way they were primed. To see if the priming worked, the answers to the "adjectives question" will be compared between the female-primed and the male-primed group. These outcomes can be found in *Appendix D*.

For the outcome variables, participants whose minimum risk premium exceeded 0.8 were given value 1.0. Participants whose minimum gross interest rate per week exceeded 0.45 were given value 0.53. This was done to make it possible to include these subjects in the regressions. For the minimum risk premium two subjects gave answers that included a preference reversal, these subjects could therefore not be analysed for that regression.

For the outcome variables it stood out that 9 subjects chose not to answer the question about Trust, and 8 subjects chose not to answer the question about Cooperation, while 4 subjects didn't answer the final question about Generosity. This could possibly mean that the formulation of the public goods game was too difficult for some participants to understand, especially because 4 people that didn't answer the Cooperation question and the Trust question still answered the last question of the survey. This means that these 4 people didn't stop filling in the questionnaire, and understood the final question well enough to answer it.

Results

First the general regression was carried out. The dependent variables were the five key elements of economic behaviour, and the independent variables were a dummy for female-primed and a dummy for male-primed. No controls were added in the first regression.

Table 2: Regression without controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Constant	0.552***	0.135***	5.000***	4.045***	2.792***
Dummy female-primed	0.086	0.014	0.385	0.595	0.670
Dummy male-primed	0.018	0.003	1.417*	1.080*	0.131
Controls	No	No	No	No	No
R ²	0.010	0.002	0.046	0.048	0.018
N=	78	80	72	71	76

*=significant at the 10% level, **=significant at the 5% level, ***=significant at the 1% level.

Only the dummy for male-primed is significant for Cooperation and Trust at the 10% level, none of the other dummies are significant in any of the other regressions. This could be caused by multiple factors. It could be that not all of the assumptions for OLS-regressions are fulfilled, which would mean that this regression does not fit the data well. It could be that there are other variables which influence the dependent variables, or it could be that the priming texts did not succeed in priming the subjects. The tests for the assumptions can be found in *Appendix B*, the check for priming can be found in *Appendix D*. From the assumption tests can be concluded that assumption of a normal distribution is violated. The check for priming seem to indicate that subjects had the appropriate stereotypical behaviour in mind before starting the economic games.

What stands out for both Trust and Cooperation is that male priming, contrary to what was hypothesised, in fact increases both Cooperation and Trust. If a subject was primed with male stereotypes, this subject added 1.417 euros more on average to the group account and expected other respondents to add 1.080 euros on average more to the group account compared to the subjects in the control group.

The R-squareds in these first 5 regressions were very low, which means that the models explained only a very low percentage of the variance of the responses. The highest R-squared was 0.048 for the regression with outcome variable Trust. This meant that this regression explained 4.8% of the total variance.

Secondly, controls were added to see if this improved the regressions. These controls were age, education, nationality and gender. Nationality was added using a dummy for Dutch or non-Dutch, which takes value 1 if the subject was non-Dutch, and 0 if the subjects was Dutch. Gender used a dummy which takes value 1 if the subject was female, male was the default. Education was also added using dummies, a dummy for high school, a dummy for MBO and a dummy for HBO. University level was not added as a dummy, as this was the default state. None of the participants had an education level below high school, therefore no other dummies were needed.

Table 3: Regression with controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Constant	0.488**	0.074	4.244***	4.186***	1.529
Dummy female-primed	0.081	0.024	0.804	0.868	0.752
Dummy male-primed	0.024	0.014	1.814**	1.236**	0.376
Controls	Yes	Yes	Yes	Yes	Yes
R²	0.032	0.131	0.197	0.256	0.168
N=	78	80	72	71	76

*=significant at the 10% level, **=significant at the 5% level, ***=significant at the 1% level.

Adding the controls quite impressively improved the R-squareds of the different models. However, still of the variables of interest only the dummy for male-primed was significant in the 3rd and the 4th model, this time at the 5% level. Again, the effect was rather large and positive, instead of the negative effect which was predicted based on the literature. Some researchers had found before that cooperating in a public goods game does not just depend on willingness to cooperate, it also

depends on risk averseness to some extent (Ingram & Berger, 1977). If looked at the outcomes in that way, it could make sense that the female-priming did not heighten Cooperation, but male-priming did. For Trust it could very well be that the same people that put in a high amount of money themselves also expected more Cooperation from others. This could be why this dummy-variable is significant for Trust as well.

Of the control variables, non-Dutch was significant in the 2nd model even at the 1% level. Being non-Dutch added 0.103 to the interest rate compared to the Dutch participants. In the 3rd and 4th model, being a high school student was significant at the 1% level, these participants trusted others and cooperated a great deal more compared to the university students. However, of all participants only 5 were high school students. It is therefore unadvisable to make definite conclusions about their behaviour. In the model with outcome variable Generosity, the dummy for high school students was significant at the 5% level, and added 2.525 euros to the amount given, compared to the university students. In the 5th model the dummy for being female was significant at the 5% level as well, and added 1.220 to the amount given.

Next, the models were estimated again, now either with all-female responses or all-male responses. This drastically reduces the number of cases analysed per model, but could help to see if males and females are influenced by gender priming to a different extent. First, the general models without control variables were estimated.

Table 4: Regression without controls with all-male responses

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Constant	0.733***	0.112***	5.286***	5.857***	2.625***
Dummy female-primed	-0.156	0.046	-0.286	-1.302	-0.069
Dummy male-primed	-0.333*	-0.11	1.314	-0.457	-0.716
Controls	No	No	No	No	No
R²	0.130	0.056	0.068	0.118	0.021
N=	29	30	26	26	28

*=significant at the 10% level, **=significant at the 5% level, ***=significant at the 1% level.

For the male respondents the dummy for male-primed was significant at the 10% level in the first model. Being male-primed reduced the risk premium the participant asked as a minimum. This is in accordance to the existing literature, about males being less risk averse than females. This result stands out, because in the general model, no significant relationship between priming and risk aversion was found. In none of the other models a significant relationship was found. This could possibly change when control variables are added.

Table 5: Regression without controls with all-female responses

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Constant	0.450***	0.147***	4.867***	3.200***	2.875***
Dummy female-primed	0.221*	-0.004	0.722	1.487**	1.066

Dummy male-primed	0.237*	0.015	1.419	1.729**	0.792
Controls	No	No	No	No	No
R²	0.094	0.004	0.042	0.128	0.055
N=	49	50	46	45	48

*=significant at the 10% level, **=significant at the 5% level, ***=significant at the 1% level.

For the female respondents, the outcomes for minimum risk premium and Trust are very interesting. From the regression, it can be seen that both the dummy for female-primed and the dummy for male-primed increased the minimum risk premium relative to the control group. The effect from the female-primed dummy is in accordance with the literature, but the effect from the male-primed group is unexpected. The positive effect by male-priming is even larger than the effect of female-priming but the difference isn't very big. A study has found that stereotypes may for a large percentage of people lead to just the opposite, whereby the self-concept is particularly likely to reflect that which is counter-stereotypical (Von Hippel, Hawkins, & Schooler, 2001). If these people are then confronted with a stereotype, this could activate their self-concept in a different way and lead to counter-stereotypical behaviour. This remarkable result is even more pronounced in the 4th regression. For Trust, both dummies are significant at the 5% level. Here only the female dummy is expected increase Trust, but in fact the male dummy has an even larger positive effect.

Most of the R-squareds for the different models with only female or only male respondents are higher than most of the R-squareds of the general models which had both gender respondents. The R-squared in Table 5 for Cooperation is slightly lower, but all the other R-squareds in Table 4 and Table 5 are higher than in Table 2. This means that assigning different regression models to the men and women fits the data better than adding them together in one regression.

Adding control variables to these separate models for the male and female respondents is expected to increase the R-squareds of the models even more, and could possibly also make the independent variables of interest more significant. Of course, no dummy for gender was added, since this time the genders are already divided into separate regressions.

Table 6: Regression with controls with all-male responses

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Constant	0.623**	0.074	5.583**	7.395***	-0.054
Dummy female-primed	-0.243	0.041	0.162	-0.441	-0.019
Dummy male-primed	-0.379**	-0.022	0.943	-0.298	-0.335
Controls	Yes	Yes	Yes	Yes	Yes
R²	0.309	0.166	0.296	0.565	0.221
N=	29	30	26	26	28

*=significant at the 10% level, **=significant at the 5% level, ***=significant at the 1% level.

The only independent variable of interest that had a significant effect on the outcome variable was still only the dummy male-primed for the minimum risk premium. This effect was significant at the 5% level, so adding the controls improved the significance of this variable.

In the first model the control variable non-Dutch was significant at the 10% level, however there were only 5 non-Dutch male students. Being non-Dutch added 0.409 to the minimum risk premium, which is a rather large effect. In the second model, there were no significant variables. In the 3rd and 4th model, being a high school student had a significant effect, just like in the general model as specified in Table 2. However, in the 4th model, age was also significant at the 5% level, and it seems like age and being a high school student could be correlated, as the high school students in this sample are all among the youngest respondents. Every year added to age, led to a decrease of Trust of 0.083 euros. In the 5th model there were no significant variables, except for being a high school student, which added 3.631 euros at the 10% level.

Table 7: Regression with controls with all-female responses

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Constant	0.446**	0.075	3.651**	1.250	3.460***
Dummy female-primed	0.215	0.026	0.998	1.702**	1.022
Dummy male-primed	0.218	0.046	1.892*	2.211***	0.746
Controls	Yes	Yes	Yes	Yes	Yes
R ²	0.111	0.146	0.261	0.283	0.109
N=	49	50	46	45	48

*=significant at the 10% level, **=significant at the 5% level, ***=significant at the 1% level.

The dummy variable for MBO level education was not added in the all-female regression, as none of the female participants had MBO as education level. Comparing these results to the results found in Table 5, shows that adding controls to the first model only improved the R-squared from 0.094 to 0.111. Adding the controls also led to the dummies not being significant at the 10% level anymore, their p-values rose to 0.103 and 0.109.

The model for minimum gross interest rate had no significant independent variables, but adding the control variables improved the R-squared quite a lot from 0.004 to 0.146.

For Cooperation the dummy for male-primed is significant, whereas it wasn't significant in the model without controls. Of the control variables both being a high school student (at 5%) and being a HBO student (at 10%) are significant. Their effects are large and positive compared to the default of university students.

In the 4th model both variables of interest are significant. The large positive effect of being male-primed is even significant at the 1% level. Again, this is not in accordance with the hypothesis, but could possibly be explained by counter-stereotypical behaviour or by the risk aspect of a public goods game. The male-primed effect is also significant for Cooperation, and people that contribute more themselves are also more likely to believe that other people contribute as well. Of the control variables being a high school student was significant again, it added 2.933 euros at the 10% level.

In the model estimating Generosity only the constant is significant, but the R-squared improved from 0.055 to 0.109.

The assumption tests which can be found in *Appendix B* show that all the regressions suffer from a distribution that isn't normal. This can lead to OLS not working optimally. If more people would fill in the survey, most likely the distribution would improve. Some of the regressions also seem to suffer from heteroscedasticity when looking at the plots. The Levene's tests however do not find heteroscedasticity between the groups, these tests find equal variances.

Subsequently, independent sample t-tests were done to compare the means of the different outcome variables of the different groups. The Tables with the outcomes of the t-tests can be found in *Appendix C*. These t-tests showed that the means of the control and the treatment groups did not differ significantly from each other. Only the mean of the male-primed group was different from the mean of the neutral group for the variable Trust on the 10% level. Male-primed subjects trusted significantly more than the control group, contrary to what was expected. The fact that none of the other means differed significantly could possibly mean that the priming was not successful, or that gender priming does not affect economic behaviour significantly.

Comparing the responses of the male and female respondents, gave significantly different means for the outcome variables Trust and Generosity, both at the 5% level (*Appendix C*). Females were significantly more generous and less trusting than males, regardless of priming. This difference in generosity further strengthens the possibility that the priming perhaps did not work that well, especially because there was no significant effect of priming on generosity in any of the regression models while gender seemed to significantly influence the outcome, regardless of priming.

Findings per key element

This study was done to find an answer to the research question: "*What is the effect of gender priming on economic behaviour?*". The results will now be discussed per key element of economic behaviour.

For Financial Risk-Taking it was hypothesised that female-priming would lead to more risk aversion, as women are consistently found to be more risk averse. Male-priming should have led to more risk-taking behaviour. Results for Risk-Taking Behaviour have been consistent in previous research, with males being less risk averse than females. In a regression without controls and all-male responses, a significant relationship between male-priming and the minimum risk premium was found. Male-priming influenced the male participants to accept a lower risk premium. This result was in accordance with the existing literature. Adding control variables made the effect significant at the 5% level. For women the results were not in accordance with the hypothesis. Male-priming led to less Risk Taking behaviour, and female-priming had the same effect as well. A possible explanation for the phenomenon that priming led to counter-stereotypical behaviour was offered in research by Von Hippel, Hawkins, & Schooler. It could be that being confronted with a stereotype led to counter-stereotypical behaviour based on people's self-concept. When controls were added to the all-female model the significant effect disappeared. In the independent t-tests no significant results were found for Financial Risk Taking, which means that the means of the minimum risk premium did not differ significantly between control group and treatment groups, or between genders, which stands in contrast to the existing literature.

For Time-Preferences the hypothesis was that female-priming would lead to more patient behaviour, while male-stereotyping could heighten impatience. However, in none of the regressions or the t-

tests a significant relationship between gender priming and the minimum gross interest rate was found. It could be that there is no relationship between gender priming and Time-Preferences, or it could be that a result could be found when using a different priming task or evaluating a larger population. It could also be that OLS-regression suggested by BCF is not the most suitable way of analysing this data. This idea is strengthened by the fact that not all of the assumptions for an OLS regression were fulfilled.

The third element which was analysed was Cooperation. The results seemed to indicate a significant relationship between male-priming and Cooperation. This result was found in the general regressions with and without controls with both male and female responses, and in the regression with controls and all-female responses. The effect of male-priming was however not in the direction which was hypothesised. Male priming increased Cooperation significantly in these 3 regressions. In the general regression with controls it was significant at the 5% level, in the other two it was significant at the 10% level. The reason Cooperation differed from the hypothesis could be for the reasons mentioned by Ingram & Berger, who said that looking at Cooperation in a public goods game also includes Risk Taking. On the other hand, in this research no evidence of a significant difference between men and women was found when it comes to Risk Taking, so differences in Risk Taking would not be expected to influence the outcome of Cooperation. In the t-tests no significant differences were found between the control and treatment groups. The t-test between men and women showed no significant difference either.

Fourthly, Trust was measured. Trust showed the most significant results in different regressions and in the t-tests. The dummy for male-primed was always positive and significant at the 10% level in the general regression without controls, at the 5% level in the general regression with controls, and at the 5% level in the regression without controls with all-female responses. In the all-female regression without controls, the dummy for female-primed was also significant at the 5% level. Adding controls to the all-female regression made the dummy for male-primed significant even at the 1% level, and female-primed at the 5% level. Interestingly enough, there was no significant effect noticeable in the all-male regressions. As mentioned, the effect of the dummy for male-primed was always positive and rather large, adding more than a euro in all regressions where the variable was significant, even though the hypothesis was that male stereotypes would decrease Trust and female stereotypes would increase Trust. However, most other researchers analysed Trust using trust games, none of the reviewed studies used the same way of measuring Trust as this study. The outcomes different researchers found weren't consistent either. It could be that the outcome for Trust is context dependent to a high degree, with women being more trusting in some environments and men in others. Using independent sample t-tests, the means for Trust showed up as significantly different between the male-primed group and the control group at the 10% level, with the mean of the male-primed group being higher. Comparing the responses of women to the responses of men, the mean values of Trust differed significantly on the 5% level, regardless of priming. The male population on average trusted significantly more than the female population. This could be explained using the fact that the effect of priming seemed bigger on the female population than on the male population, meaning that male priming brought them up to the level of males, but that the control group and the female-primed group were always below the levels of men.

The final element of economic behaviour which was tested was Generosity. In the independent sample t-test the mean values of Generosity were significantly different between men and women,

with the female population being more generous than men regardless of priming. The means did not seem to differ significantly between the treatment groups and the control group. This could mean that the priming did not work that well, but that the gender of the participant had a bigger influence. This possibility is strengthened by the fact that in the general regression with control variables, the dummy for being female was significant at the 5% level, and added 1.220 to the amount given. In the regressions the effect of priming was never significant.

Conclusion and Discussion

All in all, gender priming did not seem to influence most parts of economic behaviour, and it didn't really help "close the gender gap", as it did in some psychological research. Only male-priming improved Trust to a rather great extent and Cooperation to a lesser extent, contrary to what was hypothesised. However the differences between men and women were not as pronounced in this study as some existing literature found, especially concerning risk-preferences. More research needs to be done to see how big the gender differences really are and how these can be overcome, perhaps by making use of different gender priming tasks.

There are some limitations to this research. First of all, only 87 people filled in the survey, and only 80 responses could be analysed. This meant that the different groups only had a maximum of 28 people in them. When looking at the different genders separately, the groups became even smaller, so the influence of one individual on the results was quite big. For example, being a high school student was a significant variable in many of the regressions, but of the entire surveyed population only 5 respondents were high school students. Not having that many people answer the survey also means that it's harder to get a normal distribution of the outcomes. Ideally, this problem could be solved by surveying more people. The possible problems with heteroscedasticity could also improve when more people fill in the questionnaire, or by using Weighted Least Squares instead of Ordinary Least Squares. However these homoscedasticity problems found in the plots are most likely not that big, since the Levene's tests did not give significant results between the treatment groups and control group.

Asking more questions about one topic to get more clarity on what for example someone's exact minimum risk premium is, would also help getting better results from the regression. Now, with only 6 questions, some people only chose the certain amount, which meant that for the regression values for their minimum risk premium had to be given, and weren't chosen by the subjects themselves. BCF split up the survey and had people do only some parts, not the entire questionnaire. These parts could then be longer than they are in the questionnaire used here. This seems like a good way to do it, because perhaps people get bored or find concentrating on such a long questionnaire very hard. This could lead to subjects just clicking some answers, instead of really focussing on what they would do. In the data used in this thesis for example, someone first said that they would always prefer the amount now to the amount next week, but then always preferred the amount in two weeks to the amount next week. Either this is a very big preference reversal, or someone did not want to spend time thinking about the question.

Another issue could be that the priming instrument did not work well enough, even though an effect was present for some of the outcome variables. The check that was performed in this study seemed to indicate that the priming was successful, the female was found to be overwhelmingly helpful,

while the male was found to be mostly confident. Ideally however, validating the priming instrument would be done first, before the main experiment by for example, asking people: “What five aspects of your identity (such as ‘male/female’ or ‘college student’) are most important to you?”, after these subjects had finished the priming task like BCF did. That way it would be more guaranteed that the priming instrument is indeed valid.

One more problem with the questionnaire could possibly be that the questions were kind of directing people to give certain answers. Of course, it was tried to ask the questions as neutrally as possible, but it is possible that people were influenced by the way of phrasing them. It would also have been good to ask people what subject they had studied in higher education, if it was in an economic area or not. People with economic background behave like the *homo economicus* more often than people who haven’t been taught about economics. In addition, the questions which involved the public goods game were skipped by a rather large amount of people, which could mean that the way of phrasing was too difficult to understand.

Furthermore, using OLS regressions is possibly not the best way of analysing the data for all outcome variables. Generosity for example does not seem to follow a normal distribution. The responses seemed to have two different peaks, at sharing evenly or not sharing at all. This would not give a normal distribution, even if many more people answered the questionnaire. Perhaps using a chi-squared test with 5 different categories for the five different amounts given to the receiver would suit the data for Generosity better.

Further research could focus on creating a standard priming instrument, not only for people’s own gender identity, but also for the opposite gender identity. The variable of Trust could be explored more, in different settings and games, as this variable was influenced particularly significantly by male-priming. Trust could be a variable that depends heavily on the context. In the existing literature there isn’t a consensus about the effect of gender or gender priming on Trust yet.

Bibliography

- Abrams, D., Thomas, J., & Hogg, M. A. (1990, March). Numerical Distinctiveness, Social Identity and Gender Salience. *British Journal of Social Psychology*, 29, 87-92.
- Allan, K., & Coltrane, S. (1996). Gender Displaying Television Commercials: A Comparative Study of Television Commercials in the 1950s and 1980s. *Sex Roles*, 35(3/4), 185-203.
- Andreoni, J., & Vesterlund, L. (2001). Which is the fair sex? gender differences in altruism. *Quarterly Journal of Economics*, 116(1), 293-312.
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis, & C. M. Judd, *Handbook of research methods in social and personality psychology* (pp. 253-285). New York: Cambridge University Press.
- Becker, G. S., & Murphy, K. M. (1988, August). A Theory of Rational Addiction. *Journal of Political Economy*, 96(4), 675-700.
- Benjamin, D. J., Choi, J. J., & Fisher, G. W. (2010). *Religious Identity and Economic Behavior*. National Bureau of Economic Research.

- Ben-Ner, A., Kong, F., & Putterman, L. (2004). Share and Share Alike? Gender-Pairing, Personality, and Cognitive Ability as Determinants of Giving. *Journal of Economic Psychology*, 25(5), 581-589.
- Bolton, G. E., & Katok, E. (1995). *An experimental test for gender differences in beneficent behavior*. Pennsylvania State University, Department of Management Science and Information Systems. Economic Letters.
- Brinig, M. F. (1995). Does mediation systematically disadvantage women? *William and Mary Journal of Women and the Law*, 2, 1-34.
- Brown-Kruse, J., & Hummels, D. (1993). Gender effects in laboratory public goods contributions: do individuals put their money where their mouth is. *Journal of Economic Behavior and Organization*, 22, 255-268.
- Buchan, N. R., Croson, R., & Solnick, S. J. (2008). Trust and Gender: An Examination of Behavior and Beliefs in the Investment Game. *Journal of Economic Behavior and Organization*, 68, 466-576.
- Cadsby, C. B., & Maynes, E. (1998). Gender and free riding in a threshold public goods game: Experimental evidence. *Journal of Economic Behavior and Organization*, 34, 603-620.
- Camerer, C., & Hogarth, R. (1999). The effects of financial incentives in experiments: A review and capital-labor production theory. *Journal of Risk and Uncertainty*, 19, 7-42.
- Cox, J. C., & Deck, C. A. (2006). When are Women More Generous than Men? *Economic Inquiry*, 44(4), 163-184.
- Croson, R. (2005). The Method of Experimental Economics. *International Negotiation*, 10(1), 131-148.
- Dijksterhuis, A., & Corneille, O. (2005). *On the relation between stereotype activation and intellectual underperformance*. Unpublished Manuscript.
- Dijksterhuis, A., & Bargh, J. A. (2001). The perception-behavior expressway: Automatic effects of social perception on social behaviour. In M. P. Zanna, *Advances in experimental social psychology* (pp. 1-40). San Diego: Academic Press.
- Dittrich, M., & Leipold, K. (2014, January 2). Gender differences in time preferences. (413-415, Ed.) *Economic Letters*, 122.
- Dufwenberg, M., & Muren, A. (2006). Generosity, Anonymity, Gender. *Journal of Economic Behavior and Organization*, 61(1), 42-29.
- Eckel, C. C., & Grossman, P. J. (1996). The relative price of fairness: gender differences in a punishment game. *Journal of Economic Behavior & Organization*, 30, 143-158.
- Eckel, C. C., & Grossman, P. J. (1998, May). Are women less selfish than men?: Evidence from dictator experiments. *The Economic Journal*, 108, 726-735.
- Eckel, C. C., & Grossman, P. J. (2003, March 10). Sex differences and statistical stereotyping in attitudes towards financial risk. *Evolution and Human Behavior*, 23, 281-295.

- Eckel, C. C., & Grossman, P. J. (2008). Men, Women and Risk Aversion: Experimental Evidence. In *Handbook of Experimental Economics Results* (Vol. 1, pp. 1061-1073).
- Frank, R. (2009). *Microeconomics and Behavior* (8th ed.). McGraw-Hill.
- Gneezy, U., & Rustichini, A. (2000, August). Pay Enough or Don't Pay at All. *The Quarterly Journal of Economics*, *115*(3), 791-810.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes. *Psychological Review*, *102*(1), 4-27.
- Gysler, M., Kruse, J. B., & Schubert, R. (2002). *Ambiguity and gender differences in financial decision making: An experimental examination of competence and confidence effects*. Working Paper, Swiss Federal Institute of Technology, Center for Economic Research.
- Holt, C. A., & Laury, S. K. (2002). Risk aversion and incentive effects. *American Economic Review*, *92*(5), 1644–1655.
- Houser, D., & Schunk, D. (2007). *Fairness, Competition and Gender: Evidence from German Schoolchildren*. Unpublished.
- Ingram, B. L., & Berger, S. E. (1977). Sex-role orientation, defensiveness, and competitiveness in women. *Journal of Conflict Resolution*, *21*, 171-188.
- Kreps, D. M. (1990). Corporate Culture and Economic Theory. *Perspectives on Positive Political Economy*, 90-143.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Trust in Large Organizations. *American Economic Review*, *87*, 333-338.
- Laury, S. K., & Taylor, L. O. (2008). "Altruism Spillovers: Are Behaviors in Context-Free Experiments Predictive of Altruism Toward a Naturally Occurring Public Good?" *Journal of Economic Behavior and Organization*, *65*, 9-29.
- Levin, I. P., Snyder, M. A., & Chapman, D. P. (1988). The interaction of experiential and situational factors and gender in a simulated risky decision-making task. *The Journal of Psychology*, *122*, 173-181.
- Levin, I., Snyder, M., & Chapman, D. (1988). The interaction of experiential and situational factors and gender in a simulated risky decision-making task. *The Journal of Psychology*, *122*(2), 173-181.
- McGlone, M. S., & Aronson, J. (2006, September-October). Stereotype threat, identity salience, and spatial reasoning. *Journal of Applied Developmental Psychology*, *27*(5), 486-493.
- McGreal, S. A. (2012, December 7). Think Like a Man: Effects of Gender Priming on Cognition. *Psychology Today*.

- Meertens Instituut. (n.d.). *Populariteitslijst 1985 Nederland*. Retrieved June 14, 2015, from Nederlandse Voornamenbank: <http://www.meertens.knaw.nl/nvb/topnamen/land/Nederland/1985>
- Moore, E., & Eckel, C. C. (2003). *Measuring ambiguity aversion*. Virginia Tech, Department of Economics. Unpublished Manuscript.
- Nowell, C., & Tinkler, S. (1994). The influence of gender on the provision of a public good. *Journal of Economic Behavior and Organization*, 25, 25-36.
- Orbell, J., Dawes, R., & Schwartz-Shea, P. (1994). Trust, Social Categories, and Individuals: The Case of Gender. *Motivation and Emotion*, 18(2), 109-128.
- Ortner, T. M., & Sieverding, M. (2008, August). Where are the Gender Differences? Male Priming Boosts Spatial Skills in Women. *Sex Roles*, 59(3-4), 284-281.
- Powell, G. N., Butterfield, D. A., & Parent, J. D. (2002). Gender and Managerial Stereotypes: Have the Times Changed? *Journal of Management*, 28(2), 177-193.
- Powell, M., & Ansic, D. (1997, July 3). Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of Economic Psychology*, 18, 605-628.
- Prince, J. T., & Shawhan, D. L. (2011). Is time inconsistency primarily a male problem? *Applied Economic Letters*, 18, 501-504.
- Reiss, J. (2013). *The Philosophy of Economics: A Contemporary Introduction* (Vol. 1). New York, New York, United States of America: Routledge.
- Schmader, T. (2002, March). Gender Identification Moderates Stereotype Threat Effects on Women's Math Performance. *Journal of Experimental Social Psychology*, 38(2), 194-201.
- Schubert, R., Gysler, M., Brown, M., & Brachinger, H. W. (1999). Financial decision-making: Are women really more risk averse? *American Economic Review Papers and Proceedings*, 89, 381-385.
- Schubert, R., Gysler, M., Brown, M., & Brachinger, H. W. (2000). *Gender specific attitudes towards risk and ambiguity: An experimental investigation*. Working Paper, Swiss Federal Institute of Technology, Center for Economic Research.
- Sefton, M. (1992). Incentives in simple bargaining games. *Journal of Economic Psychology*, 13, 263-276.
- Seguino, S., Stevens, T., & Lutz, M. (1996). Gender and cooperative behaviour: Economic man rides alone. *Feminist Economics*, 2, 1-21.
- Sell, J., Griffith, W. I., & Wilson, R. K. (1993). Are women more cooperative than men in social dilemmas? *Social Psychology Quarterly*, 56, 211-222.
- Shih, M., Pittinsky, T. L., & Ambady, N. (1999, January). Stereotype Susceptibility: Identity Salience and Shifts in Quantitative Performance. *Psychological Science*, 10(1), 80-83.

- Steele, J. R., & Ambady, N. (2006). "Math is Hard!" The effect of gender priming on women's attitudes. *Journal of Experimental Social Psychology*, 42, 428-436.
- Thaler, R. H. (1988). Anomalies: The Ultimatum Game. *The Journal of Economic Perspectives*, 2(4), 195-206.
- Von Hippel, W., Hawkins, C., & Schooler, J. W. (2001, August). Stereotype Distinctiveness: How Counterstereotypic Behavior Shapes the Self-Concept. *Journal of Personality and Social Psychology*, 81(2), 193–205.
- Zaheer, A., & Venkatraman, N. (1995, June). Relational Governance as an Interorganizational Strategy: An Empirical Test of the Role of Trust in Economic Exchange. *Strategic Management Journal*, 6(5), 373-392.

Appendix A

Questionnaire

Background questions

1. What is your highest level of education?
 - a. Primary school
 - b. High school
 - c. MBO
 - d. HBO
 - e. University
 - f. Other
2. What is your gender?
 - a. Male
 - b. Female
 - c. Other
3. What is your age?
Blank space to write in
4. What is your nationality?
 - a. Dutch
 - b. Non-Dutch
5. How many inhabitants does the city you live in have?
 - a. <10.000
 - b. 10.000-39.999
 - c. 40.000-99.999
 - d. 100.000-199.999
 - e. 200.000-499.999
 - f. 500.000-999.999
 - g. 1.000.000+
6. What is your religion?
 - a. Christian
 - b. Muslim
 - c. Jewish
 - d. Buddhist
 - e. Hindu
 - f. None

- g. Other
- 7. How many siblings do you have?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4
 - f. 5
 - g. 6+

Priming task

Could you please read this text and answer the questions afterwards?

Female

It's Thursday morning and Linda, a 30 years old woman gets up at 7:00 am. After getting dressed and ready for work, Linda makes breakfast for herself, her husband and their child. Linda brings their kid to school at 8:30 am. After kissing her kid goodbye, Linda leaves for work as she has a job at a bank as a secretary. On the way over to work, she daydreams a bit and starts making to do lists. After arriving at work she chats with some colleagues and talks about plans for the weekend. A colleague asks if Linda has time to help her with a task. Linda agrees and shows her colleague how to handle the problem. Linda daydreams some more, and then she starts working very diligently to make up for the time that was lost. Her boss compliments her for always doing a good job. At 1:30 pm Linda gets off of her part time job. As her kid is still in school, Linda decides to meet a couple of friends at a café to have lunch. At the café she has a nice time gossiping with her friends and helping them with their relationship problems. After lunch she goes grocery shopping and picks up her kid. They have tea together and Linda tidies up the house. She then calls her elderly mother to ask how she's doing and has a nice chat with her. Then Linda makes dinner for her family, and the three of them enjoy it. They end the day by watching TV together and going to bed on time.

At what time did Linda leave work? (answer: 1:30 pm)

- a. 12:00
- b. 1:30 pm
- c. 5:00 pm
- d. 7:00 pm

At what kind of corporation does Linda work? (answer: a bank)

- A café
- A bank
- A store

Which words do you think describe Linda? (I will scramble these words, so that they are mixed up more randomly, the same goes for the words at the male and the neutral text)

- Insightful
- Helpful
- Agreeable
- Strong
- Tough-minded
- Confident
- Nice
- Hard-working

Male

It's Thursday morning and Dennis, a 30 years old man, gets up at 7:00 am. After shaving and getting dressed and ready, Dennis has breakfast and looks through some papers for work. At 8:30 am Dennis leaves for work as he works in a management position at a bank. After arriving at work he chats and jokes with some colleagues and talks about plans for the weekend, as there is a big Harley Davidson ride coming up and he is very excited about that. Then Dennis gets to work, and tells his secretary that she needs to work quicker than she did the last couple of days, as the project he's working on is very important, and she has already missed a deadline. Dennis works hard until lunch. After lunch Dennis has a meeting with his boss. He isn't worried, because he knows he's been performing very well. His boss tells him that Dennis' team is performing well, but one of his subordinates is not on par. Dennis promises to have a word with him. After tackling the last problems, Dennis leaves work at 5 pm and hits the gym with his friend. They have a nice talk and do some heavy lifting. After working out Dennis returns to his house and has dinner with his wife and kid. After dinner Dennis plays tennis with his kid for a while before bed time. After his kid goes to bed, Dennis and his wife watch some TV and they end the day by going to bed on time.

At what time did Dennis leave work? (answer: 5 pm)

- a. 12:00
- b. 1:30 pm
- c. 5:00 pm
- d. 7:00 pm

At what kind of corporation does Dennis work? (answer: a bank)

- A café
- A bank
- A store

Which words do you think describe Dennis?

- Insightful
- Helpful
- Agreeable
- Strong
- Tough-minded
- Confident
- Nice
- Hard-working

Neutral

Could you please read this text and answer the questions afterwards?

The first buildings in the city centre were built in the late middle ages, including various buildings that are still there today. There is a city hall, which is now turned into a museum, a large church, and various little houses, which have of course been renovated, but are still lived in. Nowadays, the city centre is bigger than it was back then. There are many new shops in more modern looking buildings. In these shops you can for example buy clothing, books, sportswear and other necessities. There are also many cafés and bars with terraces, on which people can relax in summer when the weather is nice. In winter and autumn it gets quite cold and rainy, and the city doesn't look that inviting. This city is one of the biggest cities in the country, so of course the inhabitants don't just live in the centre. The majority lives in the large suburbs. Because there are so many inhabitants, the traffic can be quite busy. There are usually pedestrians, trams, cyclists and cars everywhere, and during rush hour travelling from the suburbs to the centre can take a long time. But the city looks nice and has lots of parks and other green areas, which are great places for having picnics, or jogging or playing sports.

Which two old buildings are specifically mentioned? (answer: city hall, church)

- Church
- Bakery
- City hall
- Clothing store

Where do the majority of the inhabitants live? (answer: in the suburbs)

- In the centre
- In old houses
- In the suburbs

Which words do you think describe this city?

- Old
- Nice-looking
- Modern
- Friendly
- Dirty
- Busy
- Cultural
- Large

Economic games

“It’s important to keep in mind that there are no right or wrong answers here. Which choice you make is a matter of personal preference.”

Risk elicitation

For the first 6 questions you can make a choice between receiving some money with 100% chance, or receiving a higher amount of money with a 50% chance. Imagine a coin flip for the 50% chance. If it’s heads, you receive the money, if it’s tails, you receive nothing.

1. What do you prefer?
 - a. €100 with certainty
 - b. €160 with a 50% chance
2. What do you prefer?
 - a. €100 with certainty
 - b. €200 with a 50% chance
3. What do you prefer?
 - a. €100 with certainty
 - b. €240 with a 50% chance
4. What do you prefer?
 - a. €100 with certainty
 - b. €280 with a 50% chance
5. What do you prefer?
 - a. €100 with certainty
 - b. €320 with a 50% chance
6. What do you prefer?
 - a. €100 with certainty
 - b. €360 with a 50% chance

Discount rate elicitation

In the next 6 questions you will have to choose between an amount of money that you receive now or a higher amount of money which you will receive in a week's time.

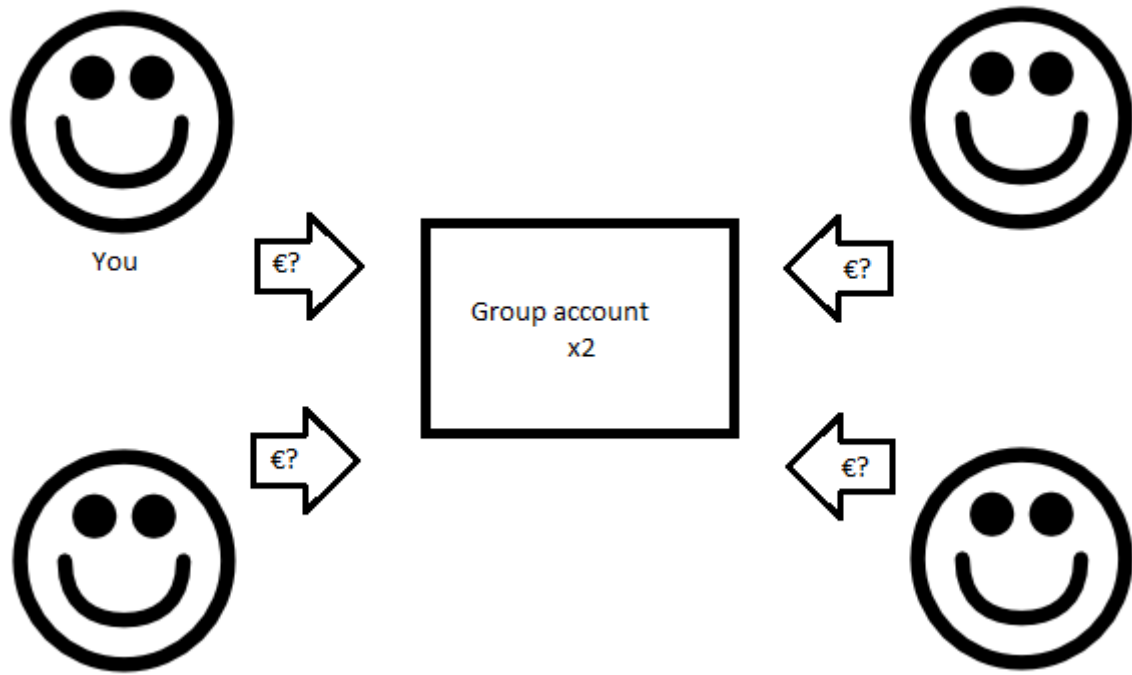
1. What do you prefer?
 - a. €100 now
 - b. €105 next week
2. What do you prefer?
 - a. €100 euro now
 - b. €113 next week
3. What do you prefer?
 - a. €100 euro now
 - b. €121 next week
4. What do you prefer?
 - a. €100 euro now
 - b. €129 next week
5. What do you prefer?
 - a. €100 euro now
 - b. €137 next week
6. What do you prefer?
 - a. €100 euro now
 - b. €145 next week

For the next 6 questions you will have to choose between receiving an amount of money next week, or receiving a higher amount of money in two weeks.

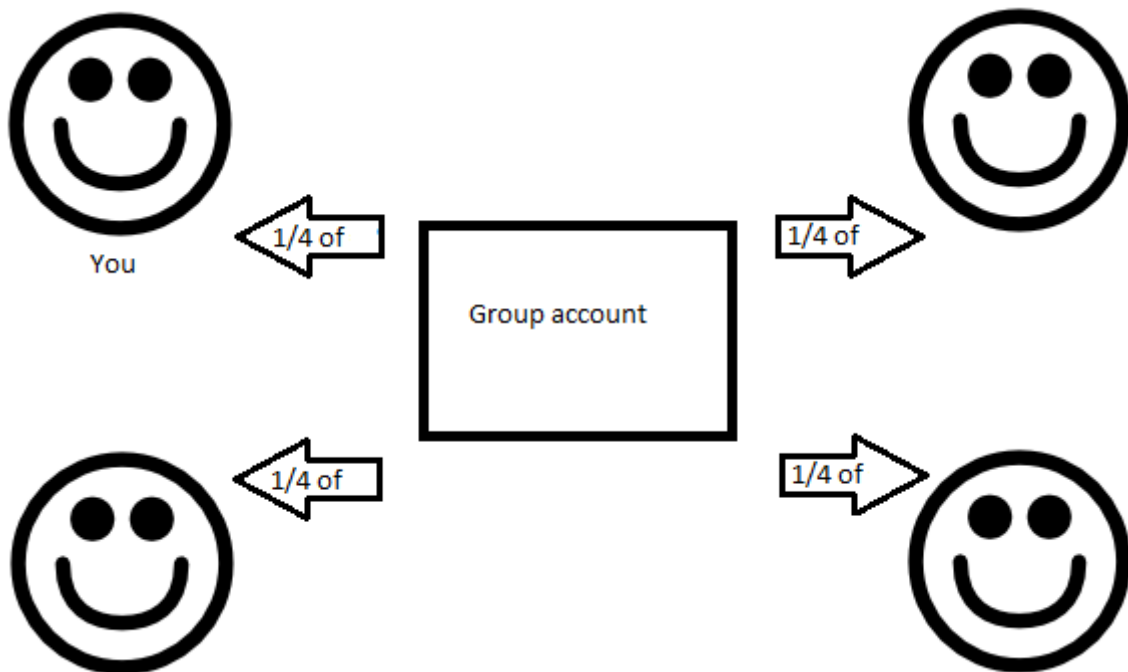
7. What do you prefer?
 - a. €100 euro next week
 - b. €105 in two weeks
8. What do you prefer?
 - a. €100 euro next week
 - b. €113 in two weeks
9. What do you prefer?
 - a. €100 euro next week
 - b. €121 in two weeks
10. What do you prefer?
 - a. €100 euro next week
 - b. €129 in two weeks
11. What do you prefer?
 - a. €100 euro next week
 - b. €137 in two weeks
12. What do you prefer?
 - a. €100 euro next week
 - b. €145 in two weeks

Cooperation

We will now play a game. You will play this game with 3 other players. Every player, including you, will receive 10 euros. Every player, including you, can choose to donate part of his/her money to a group account. The money that is not donated can be kept for private use. Players do not know how much the other players donate. After every player has donated whatever amount they wanted to donate, the money in the group account will be doubled. The money from this group account will then be divided equally between all 4 players. This means that you receive exactly $\frac{1}{4}$ of the money in the group account.



Stage 1



Stage 2

How much would you contribute to the group account?

- a. €0
- b. €1
- c. €2
- d. €3
- e. €4
- f. €5
- g. €6

- h. €7
- i. €8
- j. €9
- k. €10

Trust:

I hope to receive 50 responses, how much do you think the other respondents will contribute on average?

- a. €0
- b. €1
- c. €2
- d. €3
- e. €4
- f. €5
- g. €6
- h. €7
- i. €8
- j. €9
- k. €10

Dictator game:

For the next game I would like you to imagine that you just received 10 euros and you can split these 10 euros between yourself and another person. How would you share this amount?

- a. €10 for me, €0 for the other person
- b. €9 for me, €1 for the other person
- c. €8 for me, €2 for the other person
- d. €7 for me, €3 for the other person
- e. €6 for me, €4 for the other person
- f. €5 for me, €5 for the other person
- g. €4 for me, €6 for the other person
- h. €3 for me, €7 for the other person
- i. €2 for me, €8 for the other person
- j. €1 for me, €9 for the other person
- k. €0 for me, €10 for the other person

Check

What do you think the aim of this study is? If you don't know, you can leave this blank.

Thank you for participating!

Appendix B

Tests of assumptions

Table I: assumptions general regressions without controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Significant outliers	No	No	No	No	No
Homoscedasticity based on plot	Yes	Yes	Yes	Yes	Yes
Normality of residuals	Not normally distributed	Very much skewed to the right	Not normally distributed	The values in the middle are a lot more frequent than the others	The values to the left and the values to the right are very frequent, the middle values aren't

Table II: assumptions general regressions with controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Significant outliers	No	No	No	No	No
Homoscedasticity	Slightly heteroscedastic	No	No	Yes	Yes
Normality of residuals	Not normally distributed	Skewed to the right	Not normally distributed	Not normally distributed	Not normally distributed

Table III: assumptions all-male regressions without controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
No significant outliers	No	No	No	No	No
Homoscedasticity	Yes	Yes	Yes	Yes	Yes
Normality of residuals	No, values in the middle are too frequent	Not normally distributed	Not normally distributed	Slightly right-skewed	Two peaks observable, to the left and to the right

Table IV: assumptions all-female regressions without controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Significant outliers	No	No	No	No	No
Homoscedasticity	Yes	Yes	Yes	Yes	Yes
Normality of residuals	Not normally distributed	Skewed to the right	Values in the middle are too frequent	Not normally distributed	Skewed to the left

Table V: assumptions all-male regressions with controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Significant outliers	No	No	No	No	No
Homoscedasticity	Slightly heteroscedastic	Yes	No	Slightly heteroscedastic	Yes
Normality of residuals	Not normally distributed	Skewed to the right	Values in the middle are too frequent	Not normally distributed	Two peaks observable, to the left and to the right

Table VI: assumptions all-female regressions with controls

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Significant outliers	No	No	No	No	No
Homoscedasticity	Yes	Slightly heteroscedastic	Yes	Yes	Slightly heteroscedastic
Normality of residuals	Not normally distributed	Skewed to the right	Not completely normally distributed	Values in the middle are too frequent	Skewed to the left

Levene's tests

For the Levene's tests, the test statistics based on median will be used, since the median isn't influenced as much by possible outliers that could have been overlooked in previous tests.

Table VII: Levene's test female-primed group

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Test-statistic	0.000	0.339	2.586	0.525	1.415
Degrees of freedom	(1,76)	(1,78)	(1,70)	(1,69)	(1,74)
P-value	1.000	0.562	0.112	0.471	0.238
Equal variances assumed?	Yes	Yes	Yes	Yes	Yes

Table VII: Levene's test male-primed group

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Test-statistic	3.015	0.178	0.105	0.033	0.275
Degrees of freedom	(1,76)	(1,78)	(1,70)	(1,69)	(1,74)
P-value	0.087	0.674	0.747	0.856	0.602
Equal variances assumed?	Yes	Yes	Yes	Yes	Yes

Table VII: Levene's test neutral group

	Minimum risk premium	Minimum gross interest rate	Cooperation	Trust	Generosity
Test-statistic	3.138	0.052	1.775	0.545	0.367
Degrees of freedom	(1,76)	(1,78)	(1,70)	(1,69)	(1,74)
P-value	0.080	0.820	0.187	0.463	0.546
Equal variances assumed?	Yes	Yes	Yes	Yes	Yes

Appendix C

Independent sample t-tests

Table IX: independent sample t-tests outcome variables between control and treatment groups

	Female-primed means	Male-primed means	Neutral means	female-primed vs. neutral p-value t-test	male-primed vs. neutral p-value t-test	male-primed vs. female-primed p-value t-test
Minimum risk premium	0.638	0.570	0.552	0.373	0.861	0.523
Minimum gross interest rate	0.149	0.137	0.135	0.717	0.935	0.750
Cooperation	5.38	6.42	5.00	0.633	0.118	0.154
Trust	4.64	5.13	4.05	0.288	0.091	0.380
Generosity	3.46	2.92	2.79	0.268	0.839	0.370

Table X: independent sample t-tests outcome variables between men and women

	Women means	Men means	Men vs. Women p-value t-test
Minimum risk premium	0.604	0.559	0.600
Minimum gross interest rate	0.151	0.123	0.321
Cooperation	5.57	5.69	0.854
Trust	4.27	5.23	0.049
Generosity	3.50	2.32	0.029

The Levene's test gave significant p-values for Minimum gross interest rate and for Generosity. This means that equal variance cannot be assumed, for the t-test the p-values found under "equal variance not assumed" can be found in the Table.

Appendix D

Priming task check

Table XI: adjectives count

	Female-primed	Male-primed
Insightful	2	1
Helpful	16	0
Agreeable	4	3
Strong	4	4
Tough	2	3
Confident	2	16
Nice	17	3
Hardworking	10	17
Total	57	47

22 of the 57 words picked by the female-primed group were stereotypical female words. 23 of the 47 words picked by the male-primed group were stereotypical male words. The two words that could be applicable for both were picked, respectively, 27 and 20 times. Counter-stereotypical words were picked 8 out of 57 times by the female-primed group and 4 out of 47 times by the male-primed group. This seems to indicate that the priming was successful.