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Differences in trust and trustworthiness among different social classes

Name student: Merel Dekker

Student ID number: 509877

Supervisor: Jan Stoop

Second assessor: Anne Boring

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Abstract

This paper tries to identify possible differences in trust and trustworthiness between different social classes. The main research question is: “How well do pairs of different social classes in the Netherlands trust each other and is this trust justified?”. In an online survey, participants are randomly allocated to a social class after which they are paired with either a rich or poor person to play a trust game. In total, 169 Dutch inhabitants over the age of eighteen participated. It can be concluded that people from a higher social class are on average less trusted by others, which is in accordance with the literature. This lower trust is, however, not justified by a difference in trustworthiness. In contrast to the literature, no difference in trust is found between the lower and higher social class. However, people are more trustworthy when cooperating with a person from a lower social class. In contrast to what is expected based on other papers, no significant differences in trust between pairs from the same social class compared to pairs from different social classes are found. Based on previous literature, a difference in trustworthiness was expected when the first player belongs to a lower or higher social class than the second player. However, the results show no significant differences in trustworthiness. The main limitations are omitted variable bias, effect size of the manipulation, the use of hypothetical questions, and stating true beliefs.

Keywords: social class, trust, trustworthiness

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1. Introduction

Looking at the news, the world seems to consist of many different groups: older against younger generations, males against females, rich against poor. It sometimes seems that these groups have very little in common; while in real life, these groups interact daily. For this interaction to work, proper and good communication and cooperation are necessary. Cooperation among individuals is important for the functioning of societies. In order for people to reach common goals, people need to cooperate and work together (Verdolin, 2015). Multiple common goods, such as health care and the environment, can only exist through cooperation to keep them intact. The problem with cooperation is that individuals can sometimes maximize their own welfare by not cooperating, while total welfare is maximized when everyone contributes (Rand & Nowak, 2013). One could for example decide to not contribute to the health care system but still use it, this person would then be better off. However, when a whole society decides to not invest in the health care system, the system can not exist anymore.

Cooperation is dependent on different factors. The most important factors are communication, reputation, commitment, and trust (Mora-Valentin, Motoro-Sanchez & Guerras-Martin, 2004). This research will focus on trust, especially on differences in trust between rich and poor. As there is a positive relation between trust and cooperation, cooperation will improve when trust increases (Balliet & Van Lange, 2013). When trying to find differences in trust between different social classes, possible differences in cooperation can be identified and improved. Martinangeli and Martinsson (2020) already did research on the cooperation between these groups. They focused on the effect of the feeling of belonging to a group on cooperation among different social groups. Other research from Martinsson, Villegas-Palacio and Wollbrant (2015) investigated the effect of belonging to a high or low social group on willingness to cooperate with a group. This research will differentiate from these previous researches by looking at trust between these social classes. Next to that, it distinguishes itself by not investigating groups, but looking at pairs. In contrast to the research of Martinsson, Villegas-Palacio & Wollbrant (2015) participants will also know the social class of the individual they are collaborating with. Furthermore, trustworthiness is also taken into account to investigate whether these differences in trust in different social classes are justified. The purpose of this study is to investigate whether there are differences in trust and trustworthiness between different social classes looking at pairs in the Netherlands. The following research question will be answered:

“How well do pairs of different social classes in the Netherlands trust each other and is this trust justified?”

This research will focus on social classes in terms of income, where a distinction will be made between a lower and a higher social class. To the best of my knowledge, no research on trust and trustworthiness amongst pairs from different social classes in the Netherlands has been done, causing this research to be scientifically relevant. When sources of possible differences in trust among social classes are known, policy can be ultimately targeted to enhance trust and so cooperation which benefits society; proving the social relevance of this research.

To answer the research question, first, a short overview of the existing literature is presented. After this, data is collected via a survey that is filled in by Dutch inhabitants over the age of eighteen. In the survey, first, social class is randomly allocated. After this manipulation, participants play a trust game to investigate differences in trust and trustworthiness among different social classes. More information can be found in the methodology section of this research. The results show that people from a higher social class are less trusted by others, however, this lack of trust is not justified by a lower trustworthiness of the rich. Social class does not have a significant effect on trust that is given in others and homogeneous or heterogeneous pairs have similar trust in each other. It is found that people are on average more trustworthy when cooperating with a person from a lower social class. However, there is no effect found of differences in social classes within a pair on the trustworthiness. After the results, a conclusion can be found along with the limitations of this study and suggestions for further research.

2. Literature review

2.1 Cooperation

Classical game theory predicts that people act rationally and egoistically. However, research from Camerer (2003) showed that this is not always true and that people often want to cooperate if possible. As different people have different values and norms when it comes to cooperation, differences in cooperation between groups are expected (Henrich & Henrich, 2007). It is for example already known that cultural background has a significant effect on cooperation among people (Gächter, Herrmann & Thöni, 2010). Next to that, people prefer to cooperate with people that belong to the same group as they do (Ballie, Wu & De Dreu, 2014).

Previous research on cooperation differences among social groups focused on feelings of belonging to a group (Martinangeli & Martinsson, 2020). The authors found that homogeneous groups cooperate more than heterogeneous groups. Different research on cooperation among different social groups found that individuals who belong to high social group are less likely to cooperate with a group compared to individuals who belong to a low social group (Martinsson, Villegas-Palacio & Wollbrant, 2015). This research, however, did not specify the group with which the individual had to collaborate and measured cooperation based on a contribution to a group effort. Next to that, all these previous resources focus on groups.

According to Mora-Valentin, Motoro-Sanchez & Guerras-Martin (2004), various factors contribute to cooperation, with communication, reputation, commitment, and trust being the most significant ones. These factors can hinder or prompt cooperation. In classical economic theory trust is often ignored, however, there is a positive relation between trust and cooperation (Balliet & Van Lange, 2013; Witteloostuijn, 2003). Meaning that individuals are more likely to cooperate if they have greater trust in the other person. Researchers even found that the relation is stronger with pair interactions compared to groups (Balliet & Van Lange, 2013). There are various types of trust. In this research interpersonal trust is used, this is trust that one individual has in another individual.

2.2 Determinants of trust

There are several factors that influence trust. It is important to understand how these factors interact and vary depending on the context. The most important determinants of trust are: credibility, consistency, transparency, reliability, familiarity, similarity, and social proof (Rotenberg, 2018)

First of all, credibility plays an important part, this is the perceived trustworthiness of the other player (Metzger & Flanagin, 2013). If one is more credible, trust is increased. Trustworthiness has to be earned and indicates the quality of deserving trust. More details on this can be found later in the literature review. Consistency of the opponent's behavior and communication can also enhance trust (Petty & Cacioppo, 1986). When working together for a longer period, opponents can get a feeling of who they are dealing with and whether this person can be trusted. Furthermore, transparency, being open about motives and actions, also increases trust (Gefen & Straub, 2004). What is more, over time, trust can be established by an opponent's ability to fulfill its promises and commitments: reliability (McKnight, Cummings & Chervany, 1998). Effects from consistency, reliability, and transparency are tried to minimize by using a one-shot game, leaving participants no chance to act upon the behavior of previous rounds. Next to this, communication will not be possible.

Furthermore, familiarity, such as prior experience can influence trust (Baumeister & Leary, 1995). People are more likely to trust people that they have had positive experiences with. Familiarity can influence trust due to prior experiences in cooperating with certain groups. If someone has had negative experiences with someone that can be classified the same as their counterpart, trust may decrease. However, it might also increase if they have had good experiences. Similarity can also be an important factor in building trust. Similarities or feelings of identification with another person can enhance trust (Zand, 1972). Lastly, social proof can influence trust. Opinions of others regarding the counterpart can also influence the level of trust one has in the opponent (Cialdini & Goldstein, 2004). To exclude effects from social proof, the game will be completely anonymous to limit socially desirable behavior and feelings of social proof.

2.3 Trust and social classes

Trust is thus based on expectations of how another person will behave. These expectations are based on current and previous explicit and implicit claims (Good, 2000). Looking at different social classes, expectations might differ, causing differences in trust. Therefore, it is interesting to investigate how social classes might differ in trusting or being trusted by different social classes.

The characteristics of the persons that you are cooperating with are of high importance for the outcome of the cooperation. People that are different from us in terms of gender, age, religion or culture can trigger feelings of confusion, fear or threat which can lead to distrust (Stephan & Stephan, 1985). Similar research by Balliet, Wu and De Dreu (2014) found that people are more trusting towards groups with people who are similar to them. This is in line with one of the main pillars of trust, similarity. These findings are supported by an experiment from Vermeu (2020) who investigated trust among groups with different political viewpoints in the United States. She let groups play a trust game with people who either had a similar or a different political viewpoint. She found that people had less trust in people who voted for a different political party. It can thus be concluded that people have more trust in people who are similar to them. It is expected that these results also hold for differences in trust between different social classes at pair level. Meaning that if two persons in a pair come from the same social class, they are more likely to trust each other, compared to when they were from two different social classes. Therefore, the first hypothesis is:

H1: Trust in the other party is higher when cooperating with someone from the same social class.

The trust that one party has in another party can be influenced by the characteristics of the trustor (Mayer, Davis & Schoorman, 1995). Some parties are more or less likely to trust than others. Therefore, it might be that higher and lower social class people differ in their initial trust in society. It is for example already known that poorer people have more trust in other people (Piff, Kraus, Côté, Cheng & Keltner, 2010). Therefore, it is expected that, regardless of the social class of the other player, players from a lower social class are more trusting towards other players. Leading to the second hypothesis:

H2: People that belong to a lower social class are more likely to trust the other party.

Thus far, mainly reasons that enhance trust are discussed. However, it might also be interesting to look at factors that limit the trust in other parties. This could for example be related to prior experiences with certain social classes, which is linked to familiarity, one of the main pillars of trust (Baumeister & Leary, 1995). Having bad previous experiences with certain social classes might decrease trust in this group in further encounters. Another example of factors that might limit trust are prejudices. Prejudices do not necessarily need to be true, but they can greatly influence the way people think of others. Therefore, they can be a potential barrier for creating trust (Erdogan, 2016). Linking this to social classes, an example of a popular prejudice is that

rich people are more egocentric (Jansen, n.d.). This image could lead people to have less trust in rich people, as they are expecting them to pursue their own interest above the common interest. It is therefore expected that trust is lower when working with a person from a higher social class. It will be investigated if people indeed have less trust in rich people with the following hypothesis:

H3: Trust in the other party is lower when cooperating with a person from a higher social class.

2.4 Trustworthiness

As seen before, trust is a multifaceted concept that can be impacted by a range of factors. A possible different approach to understanding why a party has more or less trust in another is to consider attributes of the trustee. An important factor for this is credibility, which was mentioned as an important pillar of trust (Metzger & Flanagin, 2013). Credibility is determined by the perceived trustworthiness of the other player. Higher trustworthiness logically leads to more trust in that party. Trustworthiness is mainly defined by three characteristics: ability, benevolence, and integrity (Mayer, Davis & Schoorman, 1995). Ability is a group of skills or competencies that enable one to influence things. Benevolence refers to the degree to which a trustee is perceived to have a genuine desire to benefit the trustor, without being driven by self-interest or a desire for personal gain. If the trustor is for example kind or helpful to the trustee, he or she is more likely to return this favor. Lastly, integrity refers to the trustor's perception that the trustee abides by a set of principles that are deemed acceptable by the trustor. For example, handling inconsistent or in a self-serving manner decreases integrity and therefore decreases trustworthiness. As only a one-shot game is played, the effects of integrity are limited to expectations of behavior that a certain party will follow. Effects of ability are limited as all participants get the same task, with the same possibilities leaving no room for influencing.

It is interesting to investigate whether given trust is justified and how trustworthy different social classes are. As it is expected that similar social classes trust each other more, it is also interesting to check whether they are also more trustworthy towards each other. Next to this, it is hypothesized that individuals from a lower social class display higher trust in others, potentially making them more trustworthy. Lastly, it is hypothesized that richer people are less trusted. When looking at the trustworthiness of rich people, it can be identified if this lower trust is justified.

Research of Bejarano, Gillet and Rodriguez-Lara (2021) looked at trustworthiness in groups where positive random shocks occurred. They let participants play a trust game where they were either the first mover, the trustor, or the second mover, the trustee. The trustor had to give a certain amount of money to the trustee, which would be tripled. The trustee could then decide how much of this given amount he or she would return to the trustor. The researchers looked at the amount of money returned by the trustee, after a positive random shock to either the trustor or the trustee. They found that when the first mover received a positive shock, and thus got a higher endowment, the second mover returned less on average. Next to that, when the second mover received a positive shock, he or she was likely to return more to the first mover. This research shows that inequality aversion is present in the trust game and that the distribution of endowments plays a role in trustworthiness. It might therefore also be the case that the random positive shock has the same effect as belonging to a lower or higher social class. Getting a positive shock could mean having a higher income. Thus, it could be that when the first mover has a higher income and the second mover knows this, he or she will return less money. Similar, with a higher income of the second mover, it might be that he or she returns more money to the first mover. This means that when the income of the second mover is higher, he or she is more likely to return more money and is therefore more trustworthy. Leading to the following hypothesis, which consists of two parts:

H4a: Trustworthiness is higher when the second player belongs to a higher social class compared to the first player.

H4b: Trustworthiness is lower when the second player belongs to a lower social class compared to the first player.

3. Methodology

3.1 General information

To answer the research question, an online survey is executed using Qualtrics (Appendix A). The goal of the survey is to test how well pairs of different social classes in the Netherlands trust each other and whether this trust is justified. This is done by using a between-subjects design. The target group is people living in the Netherlands over the age of eighteen. Ethical approval was received through the ethical thesis check before the start of the data collection.

3.2 Experimental design

The experiment consists of multiple stages, all with a different purpose. The first stage of the experiment is a screening to ensure that the right target group is filling in the survey. All participants that are not living in the Netherlands are screened out as well as all participants under the age of eighteen due to legal constraints.

3.2.1 Poor or rich treatment

In the second stage, participants are randomly allocated to one of the two treatment groups. Participants are asked to think of a poor or rich person in their direct environment such as a friend or relative and are asked to describe this person. The main idea here is to use social comparison theory to slightly influence how rich or poor respondents feel. Participants that are asked to write about a lower or higher-status friend or relative are expected to compare themselves with this person. When comparing oneself to a lower-status friend, people are more likely to feel non-poor, regardless of their financial situation (Peng, 2021). Next to that, people who compare their status to higher-status friends are more likely to feel poor, regardless of their financial situation. Feelings of being poor or rich can thus be triggered by using two treatments where participants write about a lower or a higher-status friend. This ensures a random allocation of social class.

A manipulation check is introduced to check whether the randomization worked properly. Participants are asked to imagine a nine-step ladder where the poorest people stand on the first step and the richest people stand on the ninth step. They are asked to rank on which step they are today. This is also called the Economic Ladder Question. The foremost reason to use this question is because it is used before to measure self-assessed wealth and is proven to be effective (Ravallion & Loxsing, 2001). Furthermore, it is an indirect question as it is not defined

that income is relevant for defining social class. Lastly, the question specifically targets today, which is ideal as the treatment has taken place right before the question and it is not preferred that people take their initial wealth into account.

In the third stage, participants are randomly matched with another participant. Participants are told that they will have to cooperate with this other participant who either placed themselves at one of the lowest two steps of the economic ladder question or at one of the two highest steps. From now on, people that placed themselves at one of the two lowest steps will be referred to as poor people and people that placed themselves at one of the highest steps will be referred to as rich people. The randomization strategy thus works as follows: individuals who got the rich treatment will either work with another rich person or will work with a poor person. The same holds for individuals who got the poor treatment. In the end, four different groups are formed: a rich person collaborating with another rich person, a poor person collaborating with another poor person and two mixed groups of a rich person collaborating with a poor person or a poor person collaborating with a rich person. It is interesting to investigate whether, for example, rich people trust differently when working together with a rich person rather than with a poor person. The same will also be investigated for the poor people.

3.2.2 Trust game

After this, all participants play a trust game invented by Berg et al. (1995). It is important to note that the players cannot communicate with each other. They also do not know who their counterparty is. The only information that they have is the social class of their counterparty.

First, as the trust game might be something that not all participants are familiar with, a clear description of the trust game is presented. This ensures that all participants have a similar level of understanding. A trust game consists of two players, a pair, who can gain the most from the game when working together. Player 1 will get an initial amount of money of which he or she can give a part to another player. The initial amount of money player 1 will get is €10, which is almost equivalent to the \$10 used in the original trust game. Player 1 will get to know the social class of their counterplayer and may then give this player any amount between €0 and €10. However, they can only decide to give whole numbers without any decimals. The amount that is given to the other player is then tripled.

After sending an initial amount of money, participants are told that their counterplayer has just performed the same task. The participant will now complete the trust game and participate as

the second player. Participants are notified that the pair remains unchanged, thus the social class of the counterparty remains the same. Respondents will get a list with all the possible monetary amounts that their counterplayer could have given them. Player 1 could send any whole monetary amount between [€0 - €10], as this amount is tripled, player 2 could receive any whole monetary amount between [€0 - €30]. The list will contain all values between [€0 - €30] in steps of €3, as these are the only possible outcome values after multiplying a whole number between [€0 - €10]. Participants will not know the amount that is rewarded to them, but they know that it is somewhere on the list. For every amount on the list, they are asked how much they are willing to return to the first player. Both players would benefit most if player 1 gave all his money to player 2, as this amount would then be tripled and thus maximized. Then player 2 could decide to equally split the money, maximizing the outcome for both players. However, in order to achieve this, trust is needed.

In order to stimulate participants to make a real choice and to truly think about their decision, participants will get the chance to win the actual outcome of their trust game. The game then represents a more real scenario rather than a hypothetical one, which increases the likelihood of participants stating their true beliefs. The initial €10 is chosen as, especially when it is tripled, it can be seen as an interesting reward for participating in a five-minute survey. However, the amount is also not too high, keeping the costs of the experiment low.

At the end of the survey, a few background characteristics are asked such as income level to control for the real social class of participants. This is important to check if the effect is for example stronger for people that belong to the higher social class and have a low income compared to people that were assigned to the higher social class but have a low income in real life. Next to that, gender, educational level and age are asked.

3.3 Variables

There are three independent variables in this experiment. All of them are a result or combination of one or both of the randomization moments in the survey. The variable *social class* is a binary variable that indicates the outcome of the first randomization. When *social class* has value 1, this means that a participant had to write about a poor person, he or she is therefore expected to feel a bit richer. This group will be labeled as the higher social class group. When the variable *social class* is 0, a participant had to write about a rich person, likely causing this person to feel a bit poorer. This group will be referred to as the lower social class group. The second randomization indicates the social class of the counterparty of a participant. The variable

counterparty has value 1 if the other player in the game is rich. The variable *counterparty* has value 0 if the other player in the game is poor. A combination of these two randomization variables gives the variable *group*. This is a categorical variable that can have four different values. The value for *group* is 1 when belonging to the higher social class and working together with a rich person. This will also be referred to as the ‘richrich’ group. When belonging to the higher social class and having a poor counterplayer, the value for *group* is 2. This is labeled as the ‘richpoor’ group. *Group* gets value 3 when belonging to a lower social class and cooperating with a rich person. This group is also referred to as the ‘poorrich’ group. Lastly, when being in the lower social class and having a poor counterplayer, the variable *group* gets a value of 4. This group is named the ‘poorpoor’ group.

The variable *ladder* is a categorical variable [1-9] that is used as a manipulation check. A higher score represents belonging to a higher social group. It is expected that participants that belong to the lower social class, score lower on this scale compared to participants to belong to the higher social class.

This research has two dependent variables. *Trust* is a discrete numeric variable [€0 – €10] and indicates the monetary amount that is given from player 1 to player 2. The higher the amount given, the higher trust is (Brülhart & Usunier, 2012). Looking at the differences in money sent between different pairs of different social classes, differences in trust can be identified. The other dependent variable is *trustworthiness*. This is measured by taking the average value of the monetary amounts that player 2 has returned to player 1. The higher the average value is, the higher trustworthiness is (Brülhart & Usunier, 2012).

Looking at the background characteristics, *age* is a discrete numeric variable that is measured in years. The variable *gender* is categorical and has four options [male, female, non-binary, prefer not to say]. *Educational attainment* displays the level of education that participants have obtained or that they are currently working on. This categorical variable has five categories [primary school, high school, secondary vocational degree (MBO), applied university degree (HBO), university degree (WO)]. Lastly, *income* displays the gross yearly household income of participants. This is also a categorical variable with eight categories [less than €14.100, between €14.100 and €29.500, between €29.501 and €36.500, between €36.501 and €43.500, between €43.501 and €73.000, between €73.001 and €87.100, more than €87.100, don’t know/prefer not to say]. A high-, middle- and low-income class can be constructed based on these income classes. All incomes below €29.500 are below the modal income and are therefore considered low incomes. Incomes between €29.501 and €43.500 are average and therefore

considered middle incomes. Incomes higher than €43.501 are high incomes as they are above the modal income.

With the *income* variable and the *social class* variable a new variable is created: *real class*. *Real class* is a categorical variable with four options. It displays a combination of the allocated social class of a participant, based on the variable *social class*, and the real social class of a participant, based on the variable *income*. When a participant is allocated to a high social class and has a high income, the variable has value 1, we call this group ‘real rich’. The variable has value 2 when a participant is assigned to a high social class but has a low income, this group is called ‘fake rich’. The value is 3, ‘fake poor’, when a participant is allocated to a low social class but has a high income. And lastly, *real class* is 4 when a participant is assigned to a low social class and has a low income. This group is referred to as ‘real poor’. This variable is used to check if the effect of the random allocation to a certain social class is different when also taking the real household income into account, which is an indicator of the real social class of a participant.

3.4 Sample

A priori sample size calculations are performed to ensure statistical significance. To achieve high statistical standards, a power of 0.95 and alpha of 0.05 are chosen. Research of Turgut and Gülşen Turgut (2018) focused on trust but did not take social classes into account. Based on this literature, an effect size of 0.28 is expected. According to the power calculation, a minimal sample size of 164 respondents is necessary. This number is reached via distributing the survey among relatives and friends to ensure high data quality.

In total 190 people participated and completed the survey. Of this group, one person is screened out due to age constraints and seven people are screened out as they do not live in the Netherlands and therefore do not belong to the target group. From the remaining sample size, thirteen people are screened out because they gave unrealistic answers or showed signs of not paying attention to, or understanding the questions in the survey. A total sample size of 169 respondents remains. Looking at the two randomization moments, four different groups can be made (Table 1). In total, 80 participants belong to the higher social class. Of these 80 participants, 45 played with a rich person and thus belong to the ‘richrich’ group and 35 played with a poor person and thus belong to the ‘richpoor’ group. Furthermore, 89 participants belong to the lower social class. Of this group, 37 people played with a rich partner and therefore belong to the ‘poorrich’ group and 52 with a poor partner placing them in the ‘poorpoor’ group.

Table 1: four groups

	Higher social class	Lower social class
Rich partner	45	37
Poor partner	35	52

Notes: This Table shows the number of participants per group. The columns display the variable *social class* the rows display the variable *counterparty*.

Descriptive statistics are displayed in Table 7 in Appendix B. There is a broad age distribution, however, the average age (37 years) is slightly lower than the average age of the Dutch habitants (AlleCijfers, 2023). The number of highly educated people is also higher in the sample (48%) than in the average Dutch population. A possible explanation for this is the distribution of the survey in inner circles that consists for a large part of students at the university. Income is properly distributed. It must be noted that there are more females (60%) in the sample than males (37%), which is not completely in line with the average Dutch population proportions. Overall, it can be concluded that the sample consists of a diverse population with different characteristics. This helps strengthen the external validity of the results. However, only a few baseline characteristics are taken into account, therefore it is possible that this sample differs from the average Dutch population in terms of unobserved characteristics.

Furthermore, two balance tests are performed to check if the two randomizations worked properly. Balance tests are performed for four observable characteristics: age, gender, educational attainment and income. Table 8 in Appendix B shows the balance test of belonging to a higher or lower social class. The results show that there are no significant differences between the higher and lower social classes. Table 9 in Appendix B shows the balance test for the counterparty randomization. From this Table, it can also be concluded that there are no significant initial differences between working together with a poor or a rich person. A difference in outcome variables is therefore likely to be due to differences in treatment and not due to observed differences between the groups.

3.5 Analysis strategy

First, to check if the random assignment of social class worked properly, a manipulation check is performed. A t-test is performed to check if the score on the ladder question significantly differs for individuals in the lower social class and higher social class groups. When a significantly higher ladder score is found for the higher social class group, it can be concluded

that the manipulation worked correctly. As the balance test shows that both groups are not significantly different in the observed characteristics, the results of the groups can be compared when manipulation has proven to be effective.

For all hypotheses, first, a Mann-Whitney U test or Kruskal-Wallis test is performed to check if there are any significant differences. The assumptions necessary for the Mann-Whitney U test and the Kruskal-Wallis test are satisfied. Observations are namely independent and data is drawn from an underlying continuous distribution. Ordinary Least Squares regressions are used when significant differences are found to identify the sign and size of the difference. This parametric test has more assumptions that need to be satisfied. The randomization process solves selection bias. Furthermore, linearity in parameters, no perfect collinearity, homoskedasticity and normality are also satisfied. The last assumption needed is the zero conditional mean. Even though it is not expected to be a problem due to random allocation of the independent variable, it is possible that there is omitted variable bias causing the zero conditional mean not to hold. This is therefore a limitation of this research. However, since all assumptions of a parametric test are satisfied, this more powerful technique can be used.

To test hypothesis 1, the effect of belonging to a certain *group* (independent variable) on *trust* (dependent variable) is measured. This will show whether individuals in a pair that belong to the same social class differ in trust from pairs from different social classes. Trust is measured via the amount of money that player 1 decides to give to player 2. The higher this amount, the higher trust. When a significantly higher amount of trust is found for pairs that belong to the same social class compared to pairs from different social classes, it can be concluded that there is more trust in homogeneous pairs in terms of social class compared to heterogeneous pairs. The control variable *income* will be used in this and all subsequent regressions to improve the explanatory power as it might be that income strengthens the effect of the manipulation and it might also have an effect on trust and trustworthiness. As there is a relatively large sample size and it can be checked whether randomization worked properly, it is assumed that the other control variables are randomly distributed over the treatments. These other variables are therefore not included in the regression. The equation that will be used to test hypothesis 1 is:

$$Trust = \alpha + \beta_1 * group + \beta_2 * income + \varepsilon$$

For the second hypothesis, it is tested whether people that belong to a lower social class are more trusting towards others. To test this, *social class* is taken as the independent and *trust* as the dependent variable. Social class indicates whether an individual belongs to a lower or a

higher social class. When a person from a lower social class gives a significantly higher monetary amount to another player compared to the amount given by a player from a higher social class, it can be concluded that people from a lower social class are more trusting toward others. Leading to the following equation:

$$Trust = \alpha + \beta_1 * social\ class + \beta_2 * income + \varepsilon$$

Hypothesis 3 tests whether trust lower is when cooperating with a person from a higher social class. The independent variable in this analysis is *counterparty* and the dependent variable is *trust*. Counterparty is a binary variable that indicates whether an individual's counterparty belongs to a low or a high social class. It is inferred that trust in individuals of a higher social class is lower when the amount given to someone from a lower social class is notably greater than the amount given to an individual from a higher social class. The following formula is used:

$$Trust = \alpha + \beta_1 * counterparty + \beta_2 * income + \varepsilon$$

The two sub-hypotheses of hypothesis 4 test if there is a difference in trustworthiness when players 1 and 2 belong to different social classes. The effect of the independent variable *group* on the dependent variable *trustworthiness* is measured. When group has value 1 ('rijkrijk') or 4 ('armarm') it can be concluded that the social class of two players is similar, these two groups are taken together to test this hypothesis. Next to this, when the variable group is 'rijkarm' it can be concluded that the second player is from a lower social class than the first player. When the value of *group* is 'armrijk', the second player belongs to a higher social class than the first player. Player 2 had to indicate for every possible amount that they could have gotten from player 1, how much they would return. The average monetary amount returned by player 2 is displayed in the variable *trustworthiness*. If the average amount given back to player 1 is higher when the second player belongs to a higher social class compared to the first player, hypothesis 4a is accepted. When the average amount returned to the first player is lower when the second player belongs to a lower social class than the first player, trustworthiness is lower and hypothesis 4b is accepted. The following equation is used:

$$Trustworthiness = \alpha + \beta_1 * group + \beta_2 * income + \varepsilon$$

At the end of the results part, it will be investigated whether given trust in or by certain social classes is justified by looking at the trustworthiness. When for example, trust in one social class higher is and this party appears to also be more trustworthy, it can be concluded that the higher

trust is justified. In order to conclude this, trustworthiness of pairs of similar social classes compared to pairs of different social classes is investigated. Next to that, it will be investigated if people who are collaborating with a poor person are more trustworthy compared to people that are collaborating with a rich person. In addition, it will be checked if the higher social class has a different trustworthiness compared to the lower social class. Lastly, it will be investigated if there is an amplified effect of real income on the treatment of belonging to a certain social class. Here the effect of the dependent variable *real class* will be investigated on dependent variables *trust* and *trustworthiness*.

To control for multiple testing, Bonferroni corrections are used affecting the significance levels. Five tests are conducted for both dependent variables. Taking a standard 5% significance level and applying a Bonferroni correction for five tests, a p-value of 0.01 is now needed to conclude statistically significant results.

4. Results

The goal of the analysis is to see whether trust and trustworthiness differ between different social classes. First, a few summary statistics are presented. After this, the different hypotheses are discussed with the use of Mann-Whitney U and Kruskal-Wallis tests. When significant differences are identified, regressions are performed to check the sign and size of the difference. It is investigated if working together with a person from a lower social class or a higher social class has an effect on the amount of money that is given. From this it can be concluded if any of the four different pairs has a significantly different trust or trustworthiness.

A manipulation check is performed to see if the randomization of belonging to a certain social class has worked properly. The manipulation check looks at the difference in average ladder scores between the two social classes. The t-test in Table 2 shows that there are significant differences in ladder scores between the two treatments at a 10% significance level. The higher social class treatment group has an average score of 4.738 on the economic ladder question. This score is higher than the average score of the lower social class treatment group, which is 4.348. As a higher score indicates belonging to a higher social class, it can be concluded that the manipulation succeeded. There are two randomized groups that only differ in social class.

Table 2: t-test manipulation check

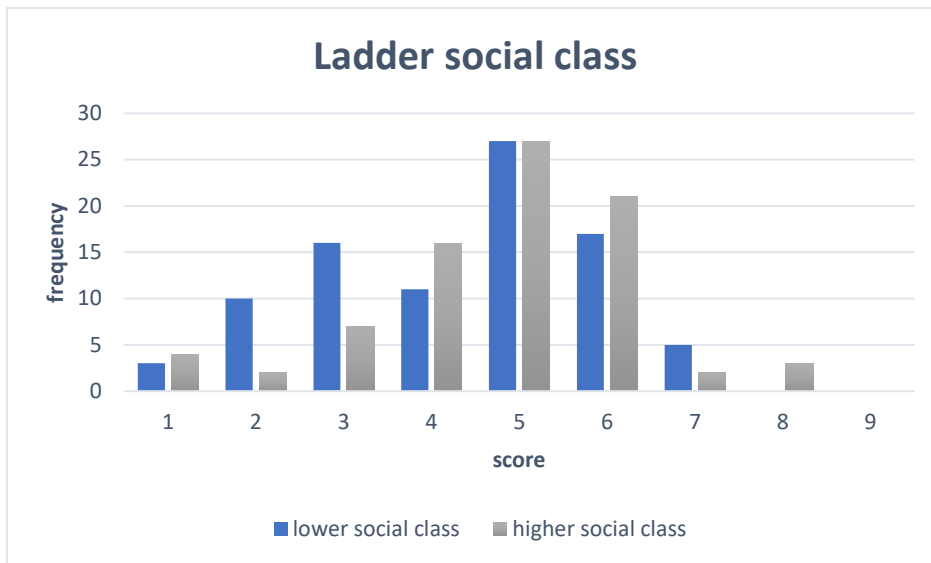
	Lower social class	Higher social class	P-value
Ladder	4.348 (0.165)	4.738 (0.163)	0.096

Notes: This Table shows the mean outcome of the variable ladder for both social classes. The last column represents the p-value of the balance test. The standard errors are displayed in brackets.

4.1 Descriptive statistics

The distribution of the score of the economic ladder question is displayed in Figure 1. The blue bars show the ladder score for the lower social class. The grey bars show the ladder score for the higher social class. The graphs peak at 5, which is around the middle of the scale. The average score given on the ladder question is 4.5. The mean score for the higher social class group (4.74) is slightly higher than for the lower social class group (4.35). It is noticeable that the bars of the lower social class are higher than that of the higher social class on the left side of the graph. In contrast, the higher social class has more peaks on the right side of the graph.

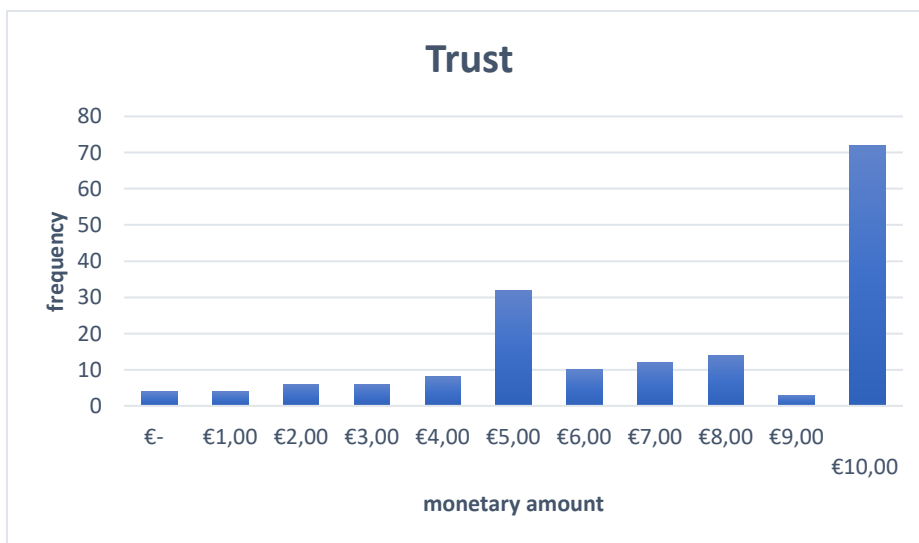
Figure 1: bar chart ladder per social class group



Notes: This figure shows the distribution of the variable ladder for both social classes. The x-axis displays the score that is given. The y-axis displays the number of times a certain score is given.

Figure 2 is a histogram of the variable *trust*. The graph shows two peaks, one at €10 and one at €5. This means that most of the participants decided to give all the money they got to the second player or decided to equally divide the money between player 1 and player 2. The average monetary amount that player 1 sent to player 2 is €7.13.

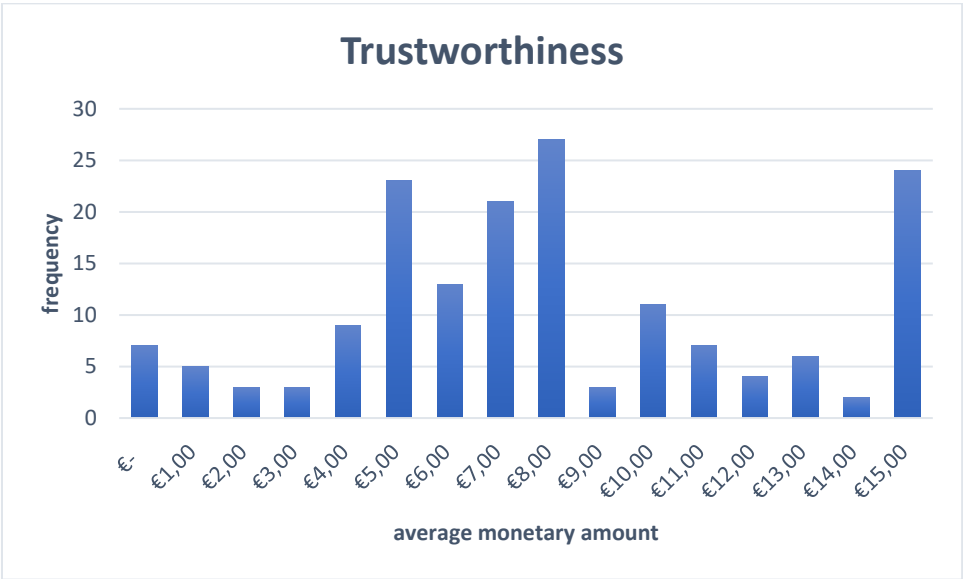
Figure 2: bar chart trust



Notes: This figure shows the distribution of the variable trust. The x-axis displays the monetary amount that is given. The y-axis displays the number of times a certain amount is given.

The histogram for *trustworthiness* is displayed in Figure 3. All numbers are rounded to an integer. The graph has a high peak at €15 which is interesting as this mean value can only be obtained if player 2 decided to give all the money back to player 1 for every amount possible. The graph shows that quite a lot of people are willing to do that. Next to that, there are peaks between giving on average €5 and €8 back. This indicates that a lot of respondents gave on average half of the money back to player 1. In total, participants gave on average €8.07 back to player 1.

Figure 3: bar chart trustworthiness



Notes: This figure shows the distribution of the variable trustworthiness. The x-axis displays the average monetary amount that is given, rounded to the nearest euro. The y-axis displays the number of times a certain amount is given.

4.2 Hypothesis 1

Based on hypothesis 1, it is expected that trust is higher when cooperating with someone from the same social class. A Kruskal-Wallis test is performed to identify any possible differences in trust between different pairs. The independent variable for this hypothesis is the variable *group* which indicates whether individuals belong to the same or to a different social class. The dependent variable is the variable *trust* which indicates the amount of trust one player has in his or her counterparty. The Kruskal-Wallis test indicates that there is at least one significant difference in trust between the groups (Table 10 in Appendix C). Looking at the mean value of trust per group, large differences can be found. A poor person gives a poor person on average €8. This is much higher than the €5.79 that a rich person gives another rich person on average.

A regression is performed to see which groups differ significantly from each other in terms of trust (Table 3). The baseline category in this regression is the group ‘richrich’. The rich give on average €2.05 more to the poor compared to giving to the rich, *ceteris paribus*. This effect is significant on a 1% significance level after applying Bonferroni correction. It could also be argued that this is an economically significant difference as this is a 36.6% increase compared to the average amount given in the ‘richrich’ group. The ‘poorpoor’ group gave on average €2.24 more than the ‘richrich’ group, *ceteris paribus*. This effect is also significant on a 1% significance level after applying Bonferroni correction. This is a 39.8% increase compared to the ‘richrich’ group and it can therefore be argued that this is also an economically relevant difference. No significant effect of income on trust is found.

Table 3: linear regression group on trust

	Trust
Group	
Richpoor	2.046*** (0.590)
Poorrich	0.982 (0.735)
Poorpoor	2.241*** (0.525)
Income	0.018
Middle income	(0.661) 0.525
High income	(0.565) -0.962
Don't know/ prefer not to say	(0.267)
Constant term	5.623 (0.613)
No. Obs.	169
R²	0.122

Notes: This Table displays a linear regression of treatment group on trust. Group ‘richrich’ is the baseline category. For income, low income is the baseline category. No. Obs. shows the number of observations. The numbers are monetary amounts. The standard errors are displayed in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

However, a possible explanation for these differences could be that people give on average more to poor people. This will be investigated in hypothesis 3. To exclude this effect, a new analysis is performed with only two groups. One group where people belong to the same social class (groups 'richrich' and 'poorpoor') and one group where individuals belong to a different social class ('groups 'richpoor' and 'poorrich'). When performing a new Mann-Whitney U with these two groups, the effect of belonging to the same social class can be observed in general. This Mann-Whitney U test shows no significant differences in trust between belonging to the same social class or belonging to a different social class (Table 11 in Appendix C). Therefore, the first hypothesis, that trust is higher when working with someone from the same social class is rejected.

4.3 Hypothesis 2

The second hypothesis is that people that belong to a lower social class are more likely to trust the other party. To test this hypothesis, *trust* is used as the dependent variable and the variable *social class* as the independent variable. First, a Mann-Whitney U test is performed to check if there are any significant differences in trust between the lower and higher social classes. This Mann-Whitney U test does not indicate a significant difference in trust between these two groups (Table 12 in Appendix C). The second hypothesis that stated that people from a lower social class are more likely to trust the other party is therefore not justified.

4.4 Hypothesis 3

Hypothesis 3 states that trust in the other party lower is when cooperating with a person from a higher social class. The dependent variable in this analysis is *trust* and the independent variable is *counterparty*. First, a Mann-Whitney U test is performed to see if there are differences in trust depending on the counterparty. This Mann-Whitney U test indicates that there are significant differences in trust depending on who one is cooperating with (Table 13 in Appendix C).

A linear regression is performed to check the size and the sign of the difference (Table 4). It can be concluded that people give less money when cooperating with a rich person compared to cooperating with a poor person. When cooperating with a rich person, on average €1.72 less is given compared to working with a poor person, *ceteris paribus*. This effect is significant on a 1% significance level after applying Bonferroni correction. Looking at the possible scale of

monetary amounts that could be given [€0-€10] it can be concluded that a difference of €1.72 is an economically relevant difference. Next to that, a decrease of €1.72 is a percentual decrease of 21.7%, which also proves that this can be seen as an economically significant difference. No significant effect of income on trust is found. Therefore hypothesis 3, that trust in the other party lower is when cooperating with a rich person, is accepted.

Table 4: linear regression counterparty on trust

	Trust
Counterparty	-1.718*** (0.436)
Income	
Middle income	-0.085 (0.660)
High income	0.438 (0.571)
Don't know/ prefer not to say	-1.086 (0.861)
Constant term	7.857 (0.500)
No. Obs.	169
R²	0.108

Notes: This Table displays a linear regression of treatment counterparty on trust. For income, low income is the baseline category. No. Obs. shows the number of observations. The numbers are monetary amounts. The standard errors are displayed in brackets. *** p<0.01, ** p<0.05, * p<0.1

4.5 Hypothesis 4

Hypothesis 4 consists of two sub-hypotheses. Hypothesis 4a explains that it is expected that trustworthiness higher is when the second player belongs to a higher social class compared to the first player. Hypothesis 4b states that trustworthiness lower is when the second mover belongs to a lower social class compared to the first mover. The independent variable in this analysis is the variable *group*, as this variable already indicates the social class difference between two players. The dependent variable is the variable *trustworthiness*, which is the average value that is returned from the second player to the first player.

To test this hypothesis, first, a Kruskal-Wallis test is performed. The results from Table 14 in Appendix C show that there is a significant effect in trustworthiness among the different groups after applying Bonferroni correction. The regression in Table 5 shows the sign and size of the different groups on trustworthiness with pairs with the same social class as baseline characteristics. No significant effect of income on trustworthiness is found. Next to that, looking at the ‘poorrich’ group, no significant difference is found when the second player belongs to a higher social class than the first player compared to when they belong to the same social class. For that reason, hypothesis 4a, which states that trustworthiness higher is when the second player belongs to a higher social class is rejected. It can be concluded that when the second player is poorer than the first player (‘richpoor’ group), the second player returns on average €1.95 more compared to when they are from the same social class, *ceteris paribus*. This effect is significant on a 5% significance level. Compared to the average amount returned by the group of individuals that belong to the same social class, this is an increase of 26.4%. This can be seen as an economically relevant difference. However, this effect is not significant after applying Bonferroni corrections. Therefore, it cannot be concluded that trustworthiness is different when the second player is from a lower social class compared to the first player. Leading to the rejection of hypothesis 4b.

Table 5: regression group on trustworthiness

	Trustworthiness
Group	
Richpoor	1.948** (0.771)
Poorrich	-1.145 (0.845)
Income	
Middle income	0.792 (0.903)
High income	0.760 (0.730)
Don't know/ prefer not to say	0.087 (1.565)
Constant term	7.940

	(0.683)
No. Obs.	169
R²	0.069

Notes: This Table displays a linear regression of treatment group on trustworthiness. Groups ‘richrich’ and ‘poorpoor’ are the baseline category. For income, low income is the baseline category. No. Obs. shows the number of observations. The numbers are monetary amounts. The standard errors are displayed in brackets. *** p<0.01, ** p<0.05, * p<0.1

4.6 Trustworthiness

So far, differences in trust between different social classes have been identified. It is also interesting to see if these differences in trust are justified. No difference in trust has been identified between heterogeneous and homogeneous pairs of social classes. Exploring whether this non-existing difference in trust is justified by the trustworthiness of these groups adds an interesting aspect to this research. A Mann-Whitney U test shows no significant differences in trustworthiness between pairs of people from the same social class and pairs from different social classes (Table 15 in Appendix C). Thus, the fact that no difference in trust is found, is justified by the fact that there also seems to be no difference in trustworthiness.

The results have also indicated that there is no significant difference in trust between people that belong to a lower social class compared to people that belong to a higher social class. It is intriguing to investigate whether there is also a lack of difference in trustworthiness, explaining the similarities in trust. A Mann-Whitney U test is performed to test if there are any significant differences in trustworthiness towards people from a lower social class compared to people from a higher social class. The dependent variable is trustworthiness, and the independent variable is counterparty. As the Mann-Whitney U test in Table 16 in Appendix C shows significant differences, a regression is performed. This regression displays that people return on average €2.40 less when cooperating with a person from a higher social class compared to cooperating with someone from a lower social class, *ceteris paribus* (Table 6). This effect is significant on a 1% significance level after applying Bonferroni corrections. Comparing this €2.40 with the average monetary amount returned to the lower social class, it can be concluded that this is a decrease of 27.6%, which can be seen as an economically relevant result. No significant effect of income on trustworthiness is found. It can therefore be concluded that people are more trustworthy when cooperating with people from a lower social class.

Table 6: linear regression counterparty on trustworthiness

	Trustworthiness
Counterparty	-2.402*** (0.613)
Income	
Middle income	0.802 (0.873)
High income	0.821 (0.693)
Don't know/ prefer not to say	-0.097 (1.560)
Constant term	8.691 (0.642)
No. Obs.	169
R²	0.091

Notes: This Table displays a linear regression of treatment counterparty on trustworthiness. Low income is the baseline category for income. No. Obs. shows the number of observations. The numbers are monetary amounts. The standard errors are displayed in brackets. *** p<0.01, ** p<0.05, * p<0.1

Hypothesis 3 showed that rich people are on average less trusted. A Mann-Whitney U test is performed to check whether this lower trust is justified. The dependent variable used for this is *trustworthiness* and the independent variable is *social class*. The Mann-Whitney U test shows that no significant differences in trustworthiness between the two social classes (Table 17 in Appendix C). It can therefore be concluded that the lower trust in people from a higher social class is not justified.

4.7 Social class and income

Even though social class is randomly allocated in this research, participants are asked to fill in their income giving a more realistic insight into their everyday life social class. As differences are found between different social classes, it is interesting to investigate whether these differences are also visible in income differences between the social classes. To test this, four groups are made. People that belong to a higher social class are divided into two groups: people with the highest incomes and people with the lowest incomes. It is then expected that the effects

are stronger for people that were randomly allocated to a higher social class and have a higher income than for people that have a lower income. The same division is made for participants that were allocated to the lower social class group. These groups are displayed in the variable *real class*. First, a Kruskal-Wallis test is performed to see if these groups differ at all in trust and trustworthiness. The Kruskal-Wallis test indicates no significant differences in trust and trustworthiness between the real classes (Table 18 and 19 in Appendix C). It can therefore be concluded that there is no amplified effect between allocated social class and real income.

5. Discussion

5.1 Conclusion

The results show no significant difference in trust and trustworthiness between heterogeneous and homogeneous social class groups. Therefore, the first hypothesis that trust is higher when cooperating with someone from the same social class is rejected. This is in contrast with research from Balliet, Wu and De Dreu (2014) and Vermeu (2020) that explains that people are on average more trusting towards groups of people that are similar to them. A possible explanation for deviations from these theories is that they concern groups while this research only regards pairs. Another possible explanation is that people were paired with an individual that either stood on one of the lowest two steps or one of the highest two steps of the ladder. Looking at the actual distribution of the ladder question, only a few participants actually placed themselves at those steps, most placed themselves somewhere more in the middle. Possibly leading participants to not have feelings of similarity towards their counterparty that is supposed to be similar to them in terms of social class.

Hypothesis 2, which states that people that belong to a lower social class are more likely to trust the other party, is rejected. Results show that belonging to a lower social class does not increase the amount of money that is given. Therefore, no difference in trust for people from a lower social class can be concluded. This is not in line with prior research from Piff et al. (2010) which stated that poor people have on average more trust in others. A regression has shown that people are more trustworthy towards people from a lower social class. Furthermore, it can be concluded that trust is lower when cooperating with a person from a higher social class, therefore, hypothesis 3 is accepted. This is in agreement with literature of Erdogan (2016) and Jansen (n.d.) that talked about the negative effect of prejudices and negative previous experiences. However, it must be noted that no significant difference in trustworthiness between different social classes is found. It is therefore concluded that the lower trust in people from a higher social class is not justified.

Looking at hypothesis 4a which states that trustworthiness is higher when the second player belongs to a higher social class than the first player, is rejected due to insignificant results. Lastly, hypothesis 4b, which states that trustworthiness lower is when the second mover belongs to a lower social class compared to the first mover is also rejected. Both are in contrast with what was expected based on earlier research of Bejarano, Gillet and Rodriguez-Lara (2021) that

looked at trustworthiness in groups with positive random shocks. A possible explanation for deviations from these results could be the fact that this research concerns pairs instead of groups and that a positive random shock, thus getting a higher endowment, might not feel the same for participants as belonging to a higher social class.

With answers to all the hypotheses, the research question can be answered. The research question was:

“How well do pairs of different social classes in the Netherlands trust each other and is this trust justified?”

It can be concluded that there are differences in trust and trustworthiness between different social classes. People belonging to a lower social class are on average not more trusting towards others, but people are more trustworthy when cooperating with a person from a lower social class. Next to that, people that belong to a higher social class are on average less trusted, however, this is not justified when looking at the trustworthiness of higher social class people. No significant difference between higher and lower social classes is found for trustworthiness. Furthermore, no difference is found for pairs of people that belong to the same or different social classes. This is justified by the fact that there also seems to be no difference in trustworthiness between pairs from different or similar social classes. Lastly, it can be concluded that there is no difference in trustworthiness when either the first or the second player belongs to a higher social class than the other player.

5.2 Limitations

It is important to note that this research only provides results that hold for the Dutch population, therefore, no conclusions about people outside the Netherlands can be drawn. This is because people of other nationalities might have different attitudes and feelings towards people from lower or higher social classes causing differences in trust and trustworthiness. Further research could try and focus on finding differences in trust and trustworthiness in other countries to see whether the effects found are similar or more country-specific. This limits the external validity of the experiment. However, since the baseline statistics show a diverse sample, it is likely that the results are representative for the whole Dutch population and the experiment is externally valid in general.

The relatively large sample size and the random distribution of treatment contribute to a higher internal validity. However, this paper also has some limitations regarding the internal validity. As mentioned before in the methodology, it is possible that there are omitted variables causing biased results. It is possible that there are variables that influence both trust and/or trustworthiness and belonging to or working with a certain social class. However, as belonging to or working with a low or high social class is randomly assigned, this is not likely to be the case.

In this research, trust is measured via the trust game. Even though it is proven that the trust game mainly measures trust, a small part of the measured effect could also be due to other effects such as reciprocity, risk preferences or altruism. Different other effects are tried to minimize by using a one-shot game where players are anonymous and there is no possibility for communication. However, it can never be guaranteed that the effect found is solely due to trust, other factors could also play a role. Further research could try and tackle this problem by extending the survey and also including questions about reciprocity, risk preferences and altruism for example. Then, it could be investigated if different social classes and different pairs have different attitudes towards these factors possibly causing differences in outcomes in the trust game.

Next to this, there is no big difference in the average ladder score between the higher and the lower social class. The average scores only differ by about 0.4 points, which can be seen as a small difference on a 9-point scale. Next to that, the average scores are only significantly different on a 10% significance level. To have a clearer distinction between the lower and higher social class groups, a larger difference and/or higher significance level are preferred. However, since only a small manipulation is used, only small changes in the ladder score are expected. So even though the manipulation seems to have a small effect, it can be concluded that the manipulation worked and that two significantly different groups are created. However, due to the smaller difference, it is possible that the differences in trust in this research are underestimated. Larger effects might be found when groups are further apart from each other on the ladder scale. Further research could try to create two groups that are more on the outer side of the scale showing more extreme scenarios. This can for example be done by propensity score matching to match a person from a real higher social class to a person from a real lower social class. Important here is to control for a lot of other characteristics to try to avoid differences in unobserved characteristics that could explain differences.

Furthermore, the questions posed in the survey are hypothetical questions. This may prevent participants from stating their true beliefs. To see if this plays an effect, the exact same experiment could be repeated in a real-life setting to see if answers would differ. Giving more to others could be seen as a socially desirable answer (to not seem selfish), making it possible that the experimenter-demand effect plays a role. This effect is tried to minimize by making the survey anonymous and giving real incentives, however, it cannot be excluded. If there is an experimenter-demand effect, this would be similar for all groups, leading to higher trust and trustworthiness. However, this would have a low influence on the differences between groups.

Participants are incentivized to state their true beliefs by offering them a chance to win real money. However, it is still possible that the monetary amount is not high enough for people, or participants did not think the chance of winning money was big enough. This might limit the extrinsic motivation of participants state their true beliefs. Next to that, due to the need to inform participants about a possible prize, e-mail addresses were collected. Even though e-mail addresses were collected at the end of the survey and participants were ensured that their answers would not be linked to their e-mail address, it is still possible that respondents felt that they were not completely anonymous. In addition, there is a possible selection bias as the survey is mainly distributed amongst friends and relatives. This could bias the results and could also jeopardize feelings of anonymity. Both could cause participants to for example give more money to the other players as they think this is more socially acceptable. Thus, causing participants to deviate from stating their true beliefs, leading to biased results. A possible solution for this would be to instead of asking for e-mail addresses giving participants the option to donate the won money to a charity of choice. However, this solution would lead to other pitfalls.

Further research could also focus on the reasons behind the differences in trust and trustworthiness that are found. It would be interesting to investigate if the lower trust in the higher social class is indeed due to prejudices or negative previous experiences. The same holds for the higher trustworthiness in the poor. Do people, for example, believe that the lower social class is more trusting or do they simply think the poor need the money more? Detailed further research on these reasons could give new, interesting insights.

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Appendix A – Survey

Start of Block: Consent

Q1 Thank you for taking time to participate in this survey, you will be done in approximately 5 minutes. If you do not wish to continue, you can quit the survey at any time. For questions and/or comments, please email: 509877md@student.eur.nl

By participating in this study, you agree that your answers may be used for scientific research. Your answers will remain anonymous and can never be traced back to you.

- I agree (1)
- I do not agree (2)

Skip To: End of Survey If Q1 = I do not agree

End of Block: Consent

Start of Block: Screening

Q2 Are you currently living in the Netherlands?

- yes (1)
- no (2)

Skip To: End of Survey If Q2 = no

Page Break



Q3 What is your age?

Skip To: End of Survey If Condition: What is your age? Is Less Than 18. Skip To: End of Survey.

End of Block: Screening

Start of Block: Poor treatment



Q11 I would like to ask you to think of a very **poor** person close to you. Think of a family member or friend who is struggling financially. Try to think of someone as poor as possible, even if no one comes to mind immediately. Can you describe this person?

Think about what it is like for this person to be poor and avoid personal details such as names.

End of Block: Poor treatment

Start of Block: Rich Treatment



Q5 I would like to ask you to think of a very **rich** person close to you. Think of a family member or friend who is financially well off. Try to think of someone as rich as possible, even if no one comes to mind immediately. Can you describe this person?

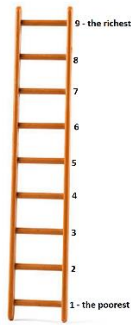
Think about what it is like for this person to be rich and avoid personal details such as names.

End of Block: Rich Treatment

Start of Block: Manipulation check

Q4

Please imagine a 9-step ladder. The poorest people stand on the bottom, and on the highest step, the ninth, stand the rich. On which step are you today?



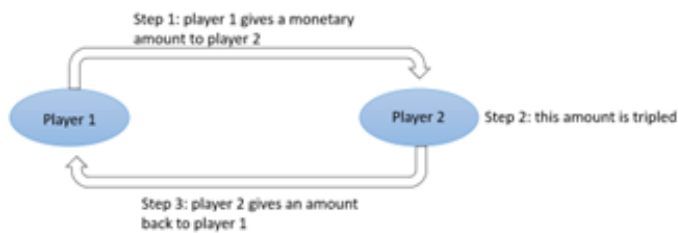
- 1 - the poorest (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 (7)
- 8 (8)
- 9 - the richest (9)

End of Block: Manipulation check

Start of Block: Trust & trustworthiness arm

Q7 You are going to play a game with another person participating in this survey. This person is someone who placed themselves in position 1 or 2 in the previous ladder question. From now on, we will refer to this player as a **poor** person. You get the chance to win the real outcome of your game. So your choices will affect the amount you might win.

Page Break



Q8 Suppose you are Player 1 and you get €10. You will perform step 1. You may give an amount between €0 and €10 from the €10 to your **poor** fellow player (Player 2). **This amount will be tripled** (step 2). After which your fellow player may give an amount back to you (step 3). So your final outcome is determined by the amount you have left yourself plus the amount you get from the other player.

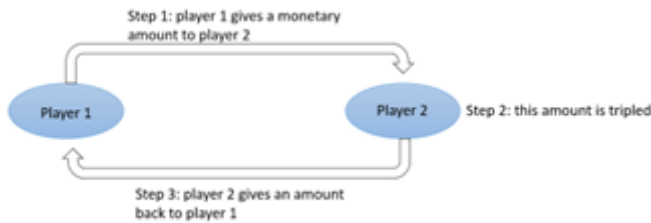


Q9 What amount with you give to your fellow player? [€0-€10]

Page Break

Q10 Imagine that you are now Player 2. Your **poor** fellow player (Player 1) has just performed the same task as you and given you a monetary amount. This amount has been tripled and is listed below (step 2). For example, if the **poor** fellow player had given you €1, you would now get €3. For each

amount in the list below, can you indicate how much money you would like to give back to your **poor** fellow player (step 3)?



	Giving back to fellow player (1)
€0	
€3	
€6	
€9	
€12	
€15	
€18	
€21	
€24	
€27	
€30	

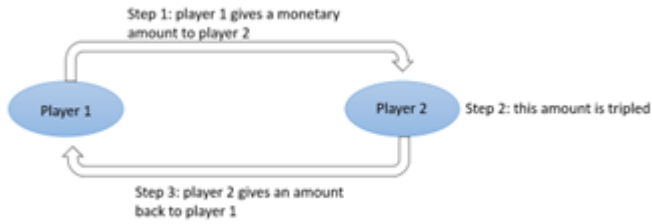
End of Block: Trust & trustworthiness arm

Start of Block: trust & trustworthiness rich

Q12 You are going to play a game with another person participating in this survey. This person is someone who placed themselves in position 8 or 9 in the previous ladder question. From now on, we will refer to this player as a **rich** person. You get the chance to win the real outcome of your game. So your choices will affect the amount you might win.

Page Break

Q13 Suppose you are Player 1 and you get €10. You will perform step 1. You may give an amount between €0 and €10 from the €10 to your **rich** fellow player (Player 2). **This amount will be tripled** (step 2). After which your fellow player may give an amount back to you (step 3). So your final outcome is determined by the amount you have left yourself plus the amount you get from the other player.



Q14 What amount with you give to your fellow player? [€0-€10]

Page Break

Q15 Imagine that you are now Player 2. Your **rich** fellow player (Player 1) has just performed the same task as you and given you a monetary amount. This amount has been tripled and is listed below (step 2). For example, if the **rich** fellow player had given you €1, you would now get €3. For each amount in the list below, can you indicate how much money you would like to give back to your **rich** fellow player (step 3)?



	Giving back to fellow player (1)
€0	
€3	
€6	
€9	
€12	
€15	
€18	
€21	
€24	
€27	
€30	

End of Block: trust & trustworthiness rich

Start of Block: Background characteristics

Q19 Lastly, I want to ask you a few background questions.

Q18 Which gender do you identify with?

- male (1)
 - female (2)
 - non-binary (3)
 - other/ prefer not to say (4)
-

Q20 What is your highest completed or current level of education?

- primary school (1)
 - high school (2)
 - secondary vocational degree (MBO) (3)
 - applied university degree (HBO) (4)
 - university degree (WO) (5)
-

Q16 What is your yearly gross households income?

- less than €14.100 (1)
- between €14.100 and €29.500 (2)
- between €29.501 and €36.500 (3)
- between €36.501 and €43.500 (4)
- between €43.501 and €73.000 (5)
- between €73.001 and €87.100 (6)
- more than €87.1000 (7)
- don't know/prefer not to state (8)

End of Block: Background characteristics

Start of Block: Winnen

Q17 Enter your e-mail address here for a chance to win the amount you collected from the game. Your e-mail address will be treated confidentially and anonymously.
Click 'next' to close the survey, this can also be done without entering your email address.

End of Block: Winnen

Debriefing: Thank you for completing this survey. With your response, I hope to better understand the differences in trust between different social classes. If you have any questions in response to this survey, please email them to: 509877md@student.eur.nl

Appendix B – Descriptive statistics & balance test

Table 7: descriptive statistics

	No. Obs.	Mean (SD)/ Percentage	Min.	Max.
Age	169	37.06 (15.96)	18	77
Education attainment				
Primary education	0	0.00%		
Secondary education	12	7.10%		
Secondary vocational degree (MBO)	21	12.43%		
Applied university degree (HBO)	55	32.54%		
University degree (WO)	81	47.93%		
Income				
less than € 14.100	24	14.20%		
between € 14.500 and € 29.500	17	10.06%		
between € 29.501 and € 36.500	13	7.69%		
between € 36.501 and € 43.500	20	11.83%		
between € 43.501 and € 73.000	29	17.16%		
between € 73.001 and € 87.100	17	10.06%		
more than €87.100	36	21.30%		
don't know/prefer not to state	13	7.69%		
Gender				
male	62	36.69%		
female	102	60.36%		
non-binary	3	1.78%		
other/ prefer not to state	2	1.18%		

Notes: This Table shows the descriptive statistics of the main variables. The first column shows the number of observations, the second column displays the mean with standard deviation for continuous variables and the percentage for categorical variables. Min and max present the minimal and maximum score for continuous variables. Age is displayed in years.

Table 8: Balance test social class

	Lower social class	Higher social class	P-value
Age	37.81 (1.758)	36.23 (1.710)	0.519
Education attainment			
Primary education	0.000 (0.000)	0.000 (0.000)	1
Secondary education	0.045 (0.022)	0.100 (0.034)	0.175
Secondary vocational degree (MBO)	0.146 (0.038)	0.100 (0.034)	0.364

Applied university degree (HBO)	0.326 (0.050)	0.325 (0.053)	0.991
University degree (WO)	0.483 (0.053)	0.475 (0.056)	0.916
Income			
less than € 14.100	0.146 (0.038)	0.138 (0.039)	0.874
between € 14.500 and € 29.500	0.112 (0.034)	0.088 (0.032)	0.592
between € 29.501 and € 36.500	0.079 (0.029)	0.075 (0.030)	0.930
between € 36.501 and € 43.500	0.112 (0.034)	0.125 (0.037)	0.801
between € 43.501 and € 73.000	0.135 (0.036)	0.213 (0.046)	0.188
between € 73.001 and € 87.100	0.101 (0.032)	0.100 (0.034)	0.981
more than €87.100	0.225 (0.044)	0.200 (0.045)	0.697
don't know/prefer not to state	0.090 (0.030)	0.063 (0.027)	0.504
Gender			
male	0.371 (0.051)	0.363 (0.054)	0.912
female	0.296 (0.052)	0.613 (0.055)	0.823
non-binary	0.011 (0.011)	0.025 (0.018)	0.510
other/ prefer not to state	0.022 (0.016)	0.000 (0.000)	0.159

Notes: This Table shows the mean outcome of variables for both the two treatment groups. The last column represents the p-value of the balance test. The standard errors are displayed in brackets.

Table 9: Balance test social class

	Poor counterparty	Rich counterparty	P-value
Age	37.26 (1.711)	36.84 (1.774)	0.640
Education attainment			
Primary education	0.000 (0.000)	0.000 (0.000)	1
Secondary education	0.057 (0.025)	0.085 (0.031)	0.486
Secondary vocational degree (MBO)	0.115 (0.034)	0.134 (0.037)	0.708

Applied university degree (HBO)	0.356 (0.052)	0.293 (0.051)	0.380
University degree (WO)	0.471 (0.054)	0.488 (0.055)	0.831
Income			
less than € 14.100	0.126 (0.036)	0.159 (0.041)	0.554
between € 14.500 and € 29.500	0.126 (0.036)	0.073 (0.029)	0.249
between € 29.501 and € 36.500	0.057 (0.025)	0.098 (0.033)	0.335
between € 36.501 and € 43.500	0.138 (0.037)	0.098 (0.033)	0.418
between € 43.501 and € 73.000	0.172 (0.041)	0.171 (0.042)	0.977
between € 73.001 and € 87.100	0.115 (0.034)	0.085 (0.031)	0.524
more than €87.100	0.195 (0.043)	0.232 (0.047)	0.568
don't know/prefer not to state	0.069 (0.027)	0.085 (0.031)	0.692
Gender			
male	0.333 (0.051)	0.402 (0.054)	0.355
female	0.632 (0.052)	0.573 (0.055)	0.437
non-binary	0.023 (0.016)	0.012 (0.012)	0.595
other/ prefer not to state	0.011 (0.011)	0.012 (0.012)	0.967

Notes: This Table shows the mean outcome of variables for both the two treatment groups. The last column represents the p-value of the balance test. The standard errors are displayed in brackets.

Appendix C – Results

Table 10: Kruskal-Wallis test group on trust

	Trust	P-value
Group		0.0011
Richrich	2783.00	
Richpoor	3447.50	
Poorrich	3078.5	
Poorpoor	5056.00	

Notes: This Table shows the rank sums of trust for all groups. The last column represents the p-value.

Table 11: Mann Whitney U test group on trust

	Trust	P-value
Group		0.1793
Richrich & poorpoor	1839.0 (6120.0)	
Richpoor & poorrich	7839.0 (8245.0)	

Notes: This Table shows the rank sums of trust for two combined groups. The expected value is displayed in brackets. The last column represents the p-value.

Table 12: Mann Whitney U test social class on trust

	Trust	P-value
Social class		0.0621
Lower social class	8134.5 (7576.0)	
Higher social class	6230.5 (6800.0)	

Notes: This Table shows the rank sums of trust for both social classes. The expected value is displayed in brackets. The last column represents the p-value.

Table 13: Mann Whitney U test counterparty on trust

	Trust	P-value
Counterparty		0.0003
Poor counterparty	8503.5 (7395.0)	
Rich counterparty	5861.5 (6970.0)	

Notes: This Table shows the rank sums of trust for both counterparty treatment groups. The expected value is displayed in brackets. The last column represents the p-value.

Table 14: Kruskal-Wallis test group on trustworthiness

	Trustworthiness	P-value
Group		0.0045
Richrich & poorpoor	8065.5	
Richpoor	3732.5	
Poorrich	2567.0	

Notes: This Table shows the rank sums of trustworthiness for all groups. The last column represents the p-value.

Table 15: Mann Whitney U test group on trustworthiness

	Trustworthiness	P-value
Group		0.5675
Richrich & poorpoor	6299.5 (6120.0)	
Richpoor & poorrich	8065.5 (8245.0)	

Notes: This Table shows the rank sums of trustworthiness for two combined groups. The expected value is displayed in brackets. The last column represents the p-value.

Table 16: Mann Whitney U test counterparty on trustworthiness

	Trustworthiness	P-value
Counterparty		0.0002
Poor counterparty	8590.5 (7395.0)	
Rich counterparty	5774.5 (6970.0)	

Notes: This table shows the rank sums of trustworthiness for both counterparty groups. The expected value is displayed in brackets. The last column represents the p-value.

Table 17: Mann Whitney U test social class on trustworthiness

	Trustworthiness	P-value
Social class		0.6587
Lower social class	7425.0 (7565.0)	
Higher social class	6940.0 (6800.0)	

Notes: This Table shows the rank sums of trustworthiness for both social classes. The expected value is displayed in brackets. The last column represents the p-value.

Table 18: Kruskal-Wallis test real class on trust

	Trust	P-value
Real class		0.2655
Real rich	2326.0	
Fake rich	990.5	
Fake poor	2862.5	
Real poor	1447.0	

Notes: This Table shows the rank sums of trust for all real classes. The last column represents the p-value.

Table 19: Kruskal-Wallis test real class on trustworthiness

	Trustworthiness	P-value
Real class		0.7324
Real rich	2594.0	
Fake rich	1096.5	
Fake poor	2671.0	
Real poor	1264.5	

Notes: This Table shows the rank sums of trustworthiness for all real classes. The last column represents the p-value.