Overcoming the Ingroup-Outgroup Bias?

Comparing self-inflicted versus non-self-inflicted indigence

Term Paper

by

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Abstract

This term paper examines the impact of intergroup discrimination on altruism, i.e. whether individuals can overcome the ingroup bias and help others in case of a non-self-inflicted indigence even if they do not share the same group identity. In a laboratory experiment, subjects were categorized into two distinctive groups, based on which smartphone operating system they are currently using (Apple iOS or Google Android). Afterwards a simple dictator game was implemented. The results show that the subjects generally favour in-group members (statistically not significant). In case of a non-self-inflicted neediness, the subjects did no longer favour in-group members. Therefore, altruism and solidarity seem to be stronger than the ingroup bias.

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TM……treatment

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1. Research motivation and previous literature

Intergroup discrimination (ingroup bias) is a phenomenon that affects most modern societies (Tajfel 1970, p. 96). In their daily life, people experience prejudice, bias and discrimination, e.g. due to their sexual orientation, race or gender (Sue 2013, p. XV). The reasons for discrimination are diverse and vary from religious to linguistical, national, cultural or political backgrounds (Tajfel 1970, p. 96). Discriminatory intergroup behaviour sometimes occurs even if an individual is not involved in actual conflicts and has no history of intergroup hostility, i.e. there is no individual's own interest (Tajfel 1970, p. 99). Buchan et al. (2006) and Tajfel (1970) demonstrated that also in experimentally constructed, temporary groups, ingroup biases arise, i.e. psychological groups are automatically formed and positive qualities of the own group and negative qualities of the other group are exaggerated (Tajfel 1970, p. 96; Buchan et al. 2006, p. 392). To the same conclusion came Sherif et al (1961), who showed in a field experiment that the mere knowledge of the existence of another group fosters the ingroup bias, independent of the presence of a win-lose situation (Gaertner et al. 2000, p. 38f).[1]

People perceive themselves as individuals and group members at the same time (Turner and Reynolds 2012, p. 399). They self-categorize themselves as an in-group member, which entails the similarities of the self to other in-group members. Individuals have more trust, are more cooperative and show more empathy towards in-group than outgroup members (Hewstone et al. 2002, p. 576). The ingroup bias (also known as ingroup favouritism or ingroup-outgroup bias) refers to the tendency to evaluate one´s own group members (in-group) superior to members of non-membership groups (outgroup) (Hewstone et al. 2002, p. 576). When subjects are categorized into groups, differences between members of the same group tend to be minimized and often ignored when it comes to forming decisions. Members of the same group seem to be more similar, even more similar than they were before they were categorized. Categorization encourages the perception of similarities of in-group members and differences of outgroup members and thus strengthens group distinctiveness (Gaertner et al. 2000, p. 35).

Individuals are more generous and favour in-group members when it comes to reward allocation. Ockenfels and Werner (2014), Grimm (2015) and Yamagishi and Nobuhiro (2008) show in a dictator game that a shared group identity changes charity preference. On average, dictators share a substantially higher amount of the endowment with recipients who have the same group identity compared to outgroup members (Grimm et al. 2015, p. 1; Ockenfels and Werner 2014, p. 453 ; Yamagishi and Mifune 2008, p. 23). To the same result came Glaeser et al (2000) and Smith (2011) who showed in a trust

[1] Sherif et al (1961) did a field experiment, in which they took 22 twelve-year-old boys to a campsite and separated them randomly into two groups. The experiment lasted for three weeks and the two groups did not meet each other during the first week. But even before the groups met face-to-face or engaged in competitive activities the ingroup bias already existed.

game that subjects share a higher amount of their endowment with people of the same nationality or ethnicity (Glaeser et al. 2000, p. 811; Smith 2011, p. 1).

The degree of how much people are willing to help others in case of neediness depends not only on the group membership but also on the reason why people have lost their endowment in the first place. Ockenfels and Selten (1998) show that people are more generous if the loss of the other subjects in their group was random and not self-inflicted (Selten and Ockenfels 1998, p. 517).[2] Trhal and Radermacher (2009) found that responsibility for one´s own actions strongly influences the solidarity of subjects. In their experiment, subjects shared a higher amount of their initial endowment to subjects which's loss was random (Trhal and Radermacher 2009, p. 16ff). People are held responsible for factors that can be fully controlled (e.g. their productivity), but not for impersonal factors, which are completely out of individual control (Cappelen and Sørensen 2005, p. 20).

This paper contributes to the existing literature as it applies the ingroup bias in the context of self-inflicted versus non-self-inflicted indigence. Based on the previous literature, this paper examines whether people can overcome the ingroup bias, i.e. if people are willing to help others in case of a non-self-inflicted loss, even if they do not share the same group identity and thus belong to the outgroup. This is important, as immigration, especially with respect of the migration crisis, is one of the main political topics in the EU (Public Opinion Monitoring Unit 2018, p. 36). Refugees who have lost everything due to war rely on the help of people who do not share the same culture, ethnicity, language, race or religion.

In the following chapter, the experimental design and hypothesis will be presented. Subsequently, the paper takes a closer look at the data used and the experimental procedure. In the fourth chapter, the results are depicted and chapter five discusses and concludes the findings.

2. Experimental design and hypotheses

The experiment consisted of two parts. The aim of the first one was to create experimental conditions that would enable the effect of intergroup categorization. Tajfel and Turner (2004) explained that the ingroup bias consists of three parts: People categorize others into groups, identify themselves with a certain group and compare their group to others (Tajfel and Turner 2004, p. 283). The subjects of this experiment should subjectively identify themselves with their group membership. The group identities

[2] Ockenfels and Selten (1998) study how solidarity affects conditional gift giving in a three-person-game. Each player could win 10,00 DM with a probability of two thirds. The decision was random and independent. Under the double-blind condition, the participants had to decide in advance how much they are willing to give to the other players in case that he or she wins while one or two of the other players lose. They found out that the great majority of subjects make substantial conditional gifts (25 to 40 percent of initial endowment).

were based on the type of smartphone operating system they are currently using (Apple iOS or Google Android). iPhone and Android smartphones account for more than 90 percent of all smartphones sold worldwide (Shaw et al. 2016, p. 727). Therefore, the experiment used these two smartphone types. In the experiment, the subjects first chose the current smartphone type they are using. In case they had a different type of operating system they had to choose which one of the two operating systems their future smartphone would more likely have.

The idea to form group identities based on the smartphone type was inspired by Feldman (2012) who separated the auditorium of his university course into those wearing and those not wearing tennis shoes (Feldman 2012).[3] His categorization was random. As seen in chapter one of this paper, Tajfel et al (1970) demonstrated that people prefer the in-group even when the groups are formed on arbitrary criteria and thus the criteria of shoes would have to be enough to create an ingroup-outgroup bias. To ensure a strong ingroup bias, this experiment was constructed with apple versus android smartphones. Belk (2013) argues in his extended self-theory that the more a person feels attached to an object, e.g. a smartphone, the more it becomes part of the self-identity (Belk 2013, p. 477f). Following the Cross-Platform Future in Focus report (2017) an average person spends 171 minutes every day on his or her phone with an upward tendency (comScore 2017). Smartphones are highly customized. There is empirical support, that people embody the symbolic meaning of the type of clothes they wear. When this is applied to the ownership of smartphones, individuals might embody the symbols attached to each smartphone brand. Thus, aspects of the smartphone use can be considered within the context of an extended self (Shaw et al. 2016, p. 727). Therefore, taking smartphones to categorize the participants into groups should be a strong criterion to form lap-induced group identities.

After the subjects have stated their type of smartphone, the owners of an apple smartphone (and those subjects stating that they are more likely to buy an apple smartphone in the future) were put into one chat and the android smartphone owners (and the people stating they would be more likely buy an android smartphone in the future) were put into another chat. Following Feldman (2012), the subjects received the instruction to list in their chat as many possible reasons why the others do not use the same type of smartphone as they do, i.e. the android users had to list why the apple users do not use android and the apple users had to list why the android users do not use apple smartphones. They were given a two-minutes time limit for this task. This task forces the group members to compare themselves with the others, which makes them more aware of differences between the two “groups”. After finishing this task, the first part of the experiment was completed.

[3] The subjects had the task to list reasons as many reasons as possible why the other group do not wear the same shoes as they do. They had three minutes time. This resulted into mostly negative comments about the other group.

The aim of the second part is to test whether the ingroup bias was successfully created and to examine under which circumstances the subjects will overcome the bias. Therefore, a simple dictator game was implemented. The roles of dictator and receiver were randomly attributed. The dictator was endowed with 200 Taler and received the information about what type of smartphone the receiver uses. Afterwards, the dictator had to decide how much of his endowment to share with the receiver. The payoff of the dictator was determined by the amount left over (200 Taler minus amount shared). The receiver was passive, i.e. he or she could not undertake any actions and the payoff was determined by the amount shared by the dictator. The game theory would predict that the dictator will keep all his endowment, no matter what smartphone operating system the receiver uses.[4] However, the amount shared in dictator games is generally 20 to 40 percent of the initial endowment. As the receiver is passive, the dictators do not have to fear negative reciprocity. If a dictator still shares a higher amount than zero, the only reason that can explain this behaviour is altruism and solidarity (Camerer 2011, p. 44ff). Altruism is defined as helping other people, i.e. increasing another's welfare without expecting a reward while incurring some personal costs (Fletcher and Clark 2008, p. 162f). Solidarity is similar to altruism but is more a mutual attachment between individuals with a common ground, i.e. mutual obligations to aid each other, whenever it should be necessary (Bayertz 1999, p. 3).

The experiment consists of three treatments. Treatment one is the control treatment. It was constructed as described above with the aim to test whether the lab-induced group identities lead to an ingroup bias (see the game tree in appendix I). Henceforth, the paper will refer to this treatment as Control-TM. The hypothesis to this treatment is that due to the ingroup bias, the dictator sends a higher amount to receivers who have the same group identity, i.e. have the same type of smartphone operating system (in-group), compared to receivers that use a different smartphone operating system (outgroup).

Hypothesis 1: The amount shared is higher for in-group than outgroup members (Control-TM).

The second treatment (further referred to as Framing-TM) is different to the Control-TM in terms of the framing of the dictator game. In contrast to the Control-TM, all subjects received a reward of 200 Taler after the chat task. In the beginning of the second phase, the participants were told that randomly 50 percent of the players lose the 200 Taler from the first part of the experiment. Consequentially, the situation is identical to the Control-TM except that the framing has changed (still 50 percent of the subjects are endowed with 200 Taler). The different framing makes the dictator more aware of the fact

[4] The standard game theory assumes that people make individually rational (optimal) choices that maximize the own welfare. Under the assumption of the homo oeconomicus the dictator should keep all the endowment to maximize his own welfare.

that the receiver has lost his endowment and that the loss was not self-inflicted. Solidarity will lead to empathize with the receiver who has lost his endowment. The hypothesis to this treatment is that the dictator will still discriminate against outgroup members, i.e. the amount shared is lower for outgroup members, as the ingroup bias is stronger than altruism.

Hypothesis 2: The amount shared is higher for in-group than outgroup members (Framing-TM).

In the third treatment the first part was identical to the Framing-TM, i.e. the participants received a reward of 200 Taler for the chat task. The second part differs from the Framing-TM, as now randomly 50 percent of the subjects had to successfully complete another task to keep the reward, whereas the other 50 percent of the subjects could keep the 200 Taler. Those who kept the 200 Taler took the role of the dictator and those who had to fulfil a further task were receivers. The receivers had to complete a slider task. For each slider they positioned correctly, the possibility to lose the earned reward was reduced by one percent. The time limit for this task was set to thirty seconds. The task was purposefully constructed to be nearly impossible to solve, so that most of the receivers would lose their endowment. The idea of this treatment is to construct a "self-inflicted" loss. The dictators did not know what kind of task the receivers had to solve and thus only knew the result, i.e. whether the receiver was successful and hence kept the 200 Taler or did not solve the task and lost his endowment.
On the one hand, the dictator can speculate that the receiver was not able to solve the task and thus the loss would be self-inflicted. If he/she is convinced that the loss is self-conflicted, according to Trhal and Radermacher (2009) and Cappelen and Sørensen (2005) the dictator should share less with the receiver. On the other hand, it might be that the dictator assumes the task might have been too difficult and thus impossible to solve. In this case, the loss would not be self-inflicted. At the same time the dictator knows which smartphone type the receiver owns. The ingroup bias should make the dictator favour in-group members. The uncertainty gives the dictator an excuse to discriminate against outgroup members (as the dictator assumes that the loss was self-inflicted) and to prefer in-group members (as the task was too difficult and their loss was not-self conflicted). The hypothesis to this treatment is that the dictator will discriminate receivers from an outgroup and will thus share a lower amount with them compared to a receiver of the same group identity, no matter if he assumes that the result was self-inflicted or not. Henceforth, this treatment will be referred to as Slidertask-TM.

Hypothesis 3: The amount shared is higher for in-group than for outgroup members (Slidertask-TM).

3. Data and experimental procedure

The experiment took place in the pc-pool of the University of Passau from 15th to 26th of June 2018 and was conducted in 24 sessions. It was designed with *z-Tree: Zurich toolbox for ready-made economic experiments* (Fischbacher 2007). Participants were acquired shortly before the sessions started. 280 students participated in this experiment (92 in Control-TM, 92 in Framing-TM, 96 in Slidertask-TM) with 62 percent of them being female and 38 percent male. The average age of the participants was 22,5 years. 123 of the participants had an android and 157 an apple smartphone. There were 71 in-groups and 69 outgroups formed.[5] On average twelve subjects participated every session. At the beginning of every session, the participants were read general instructions regarding the experiment. As there were two to three experiments conducted within one session, the order of the experiments changed regularly to control for order effects. At the end of all experiments, participants answered a questionnaire asking for age, gender and field of studies. The participants were not payed, but they were offered sweets and coffee as an incentive.

4. Results

In this section, the results of the experiment will be analysed. First, the results of the treatment-effects, and second, further interesting findings of this experiment will be presented and discussed.

4.1 Treatment effects

The average amount shared is 76 Taler in Control-TM, 72 Taler in Framing-TM and 71 Taler in Slidertask-TM, which equals a share of 35 to 38 percent of initial endowment. This is in line with results of other dictator games, where the average amount shared was between 20 to 40 percent (see second chapter). In the following, this paper will give a more detailed account of the results of each treatment.

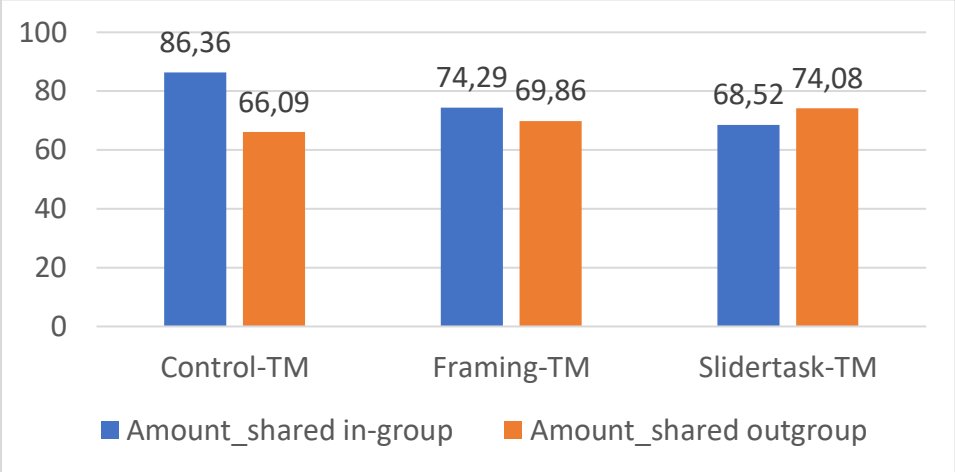

Figure 1: Average amount shared with in-groups and outgroups members in each treatment.

[5] Ingroup = dictator and receiver share the same group identity, i.e. they have the same type of smartphone. Outgroup = dictator and receiver share not the same group identity, i.e. they have different types of smartphone.

Control-TM

As depicted in figure 1, the average amount shared is 86 Taler in ingroups and 66 Taler in outgroups. Hence, the amount shared is on average 20 Taler higher for in-group members (although not statistically significant). This result is in accordance with hypothesis one, which stated that the amount shared is higher for in-group members than for outgroup members. The dictators prefer in-group members and discriminate against outgroup members. Therefore, it seems that the lab-induced group identity led to an ingroup bias. Otherwise the average amount shared with in-group or outgroup members should have been on the same level.

Framing-TM

The average amount shared is 74 Taler for in-groups and 70 Taler for outgroups (see figure 1). This difference of four Taler is small and statistically not significant. This suggests that the dictators do not seem to make a difference between group identities in their decision on how much to share with the receiver. Making the dictator more aware of the fact that the loss is not self-inflicted and randomly distributed, makes him/her no longer consider the group identity. Our second hypothesis that the dictator will still discriminate outgroup members if the loss was due to a random cause must be rejected. The dictators have overcome the ingroup bias when the neediness is not self-inflicted.

Slidertask-TM

In the third treatment the average amount shared with in-group is 69 Taler and 74 Taler with outgroup members (see figure 1). The difference of five Taler is small and statistically not significant. It seems that the dictators have overcome the ingroup bias even if the neediness is "self-inflicted". The results are very similar to the Framing-TM. The average amount shared differ statistically significant to the Control-TM. Whether the loss is self-inflicted or not, does not seem to make a difference. But the results must be interpreted with caution because it is also possible that the dictators assumed that the task for the receivers was impossible to solve. In this case, they acted as if the neediness was not self-inflicted, similar to the Framing-TM. As it is not clear, whether the dictators assumed a self-inflicted or non-self-inflicted loss, further research might use a different task, where the dictator clearly gets the information on the reason of the indigence.

4.2 Further interesting findings

Taking a closer look at the dictators, it appears that the dictators with an apple smartphone discriminate stronger against outgroup members and prefer in-group members more than android users. Figure 2 depicts the differences in the average amount shared between apple and android dictators across all treatments. Apple dictators give on average 80 Taler to in-group and 68 Taler to outgroup members. This is a difference of twelve Taler, whereas the difference for android user between the two groups is only two Taler.

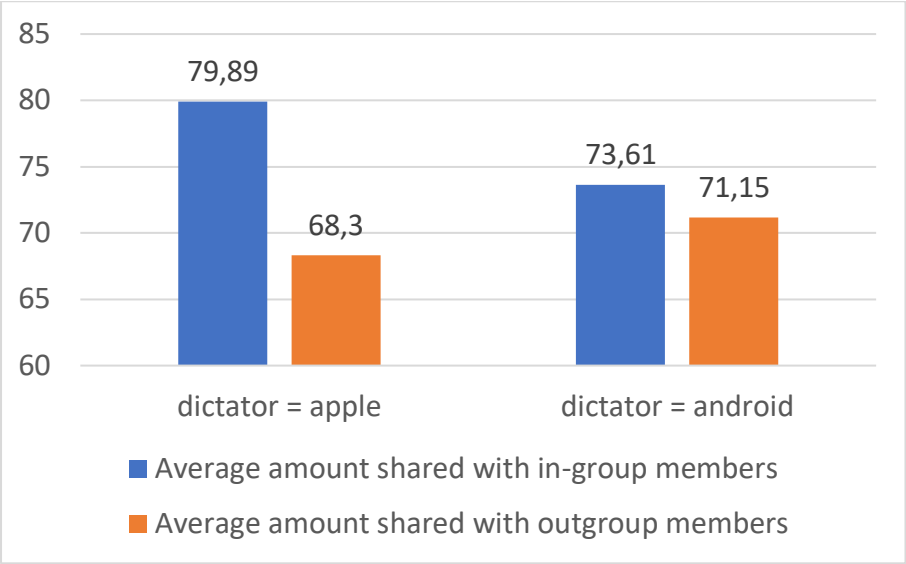

Figure 2: Average amount shared with in-group and outgroup members, depicted separately for apple and android dictators.

Taking an even more detailed look on how the apple and android dictators have decided in each treatment separately, it becomes obvious that apple dictators on average share a higher amount with in-group members in every treatment (compare blue to orange bars in figure 3). Surprisingly, the android dictators behave differently. While they also prefer in-group members in the Control-TM, they do not make any difference between the receivers in the Framing-TM (compare grey to yellow bars in figure 3). In the Slidertask-TM, the difference of the average amount shared by android dictators is statistically significant higher for outgroup than for in-group members.

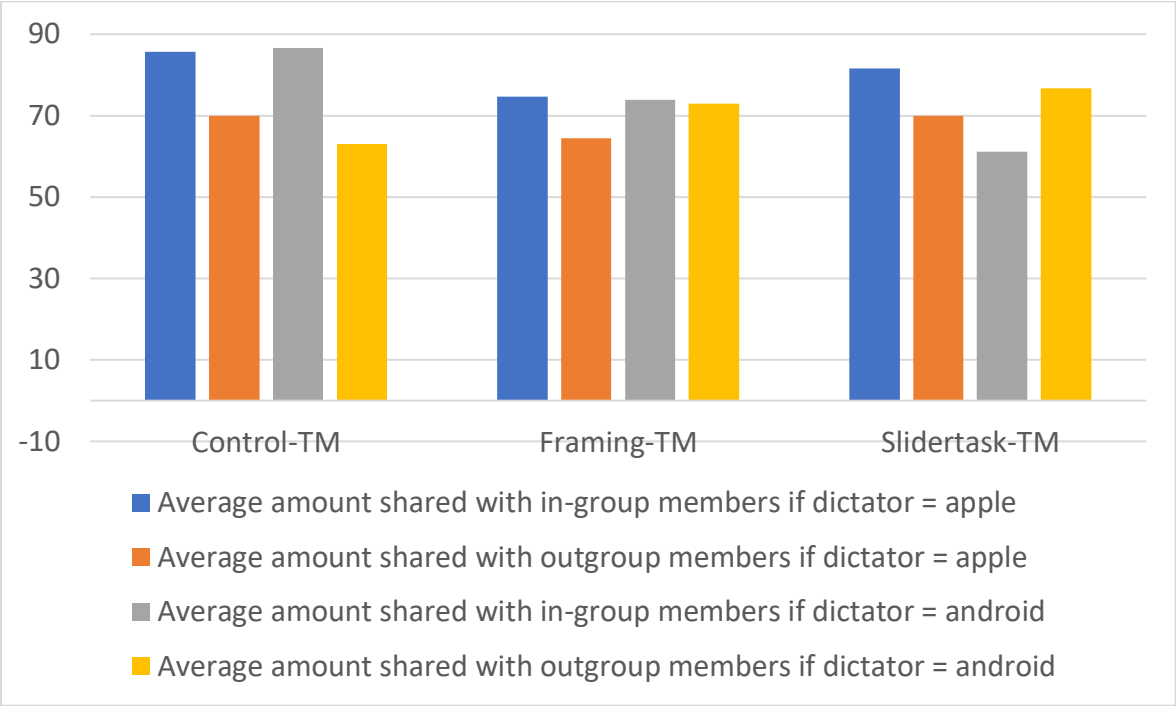

Figure 3: Average amount shared with in-group and outgroup members in each treatment, depicted separately for apple and android dictators.

5. Conclusion and limitations

The aim of this experiment was to show, whether individuals can overcome the ingroup bias and help others in case of a not self-inflicted neediness even if they do not share the same group identity. The results of the Control-TM show that people favour in-group members (although not statistically significant). In the Framing-TM and Slidertask-TM the difference in the amount shared between in-group and outgroup members disappeared. Altruism and solidarity seem to be stronger than the ingroup bias. This is an important finding, especially regarding the migration crisis in Europe.

As the smartphone-induced group identity among students did not create a statistically significant bias, further research should focus on group identities based on stronger characteristics with which people identify themselves, e.g. social status (workplaces), language, religion or nationality. Using refugees as an outgroup, may result in a stronger bias as national identification by itself is one of the strongest predictors of xenophobic attitudes (Brown 2000, p. 748). Another limitation concerns the determination of the ownership. Maybe some participants did not choose the smartphone actively but received it as a gift. In this case they might not identify themselves with the brand of their smartphone. Interestingly, it seems that apple and android users differ significantly in the manifestation of the ingroup bias. Apple users favour in-group members stronger. Hence, it needs to be considered in further research that maybe other demographical or personal differences influenced the results. Furthermore, the group size in the chats in the first stage of the experiment could play a role as there where sometimes only four participants within one session. However, after controlling for group size there was no significant influence on the amount shared. Even after controlling for the group activity in terms of the amount of written words within the chat or after accounting for order effects, there was no significant difference in the amount shared.

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Appendix I

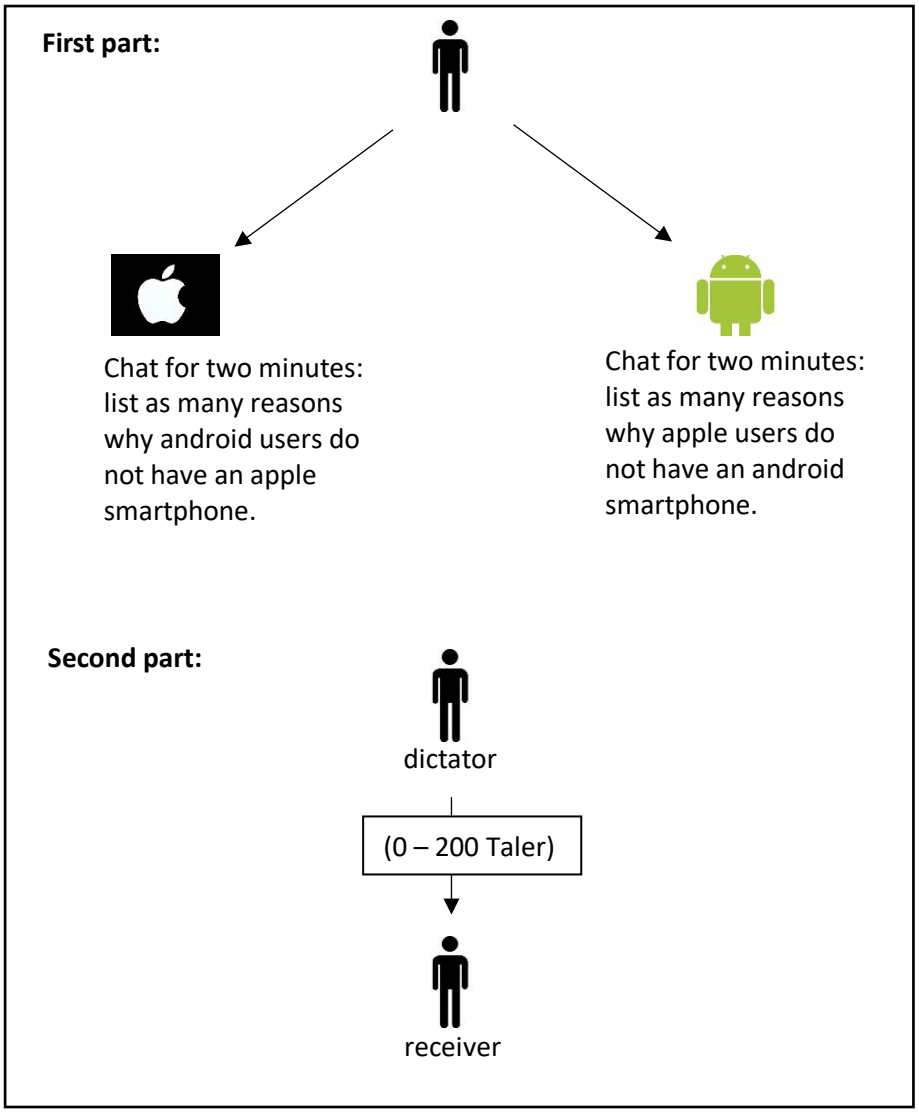
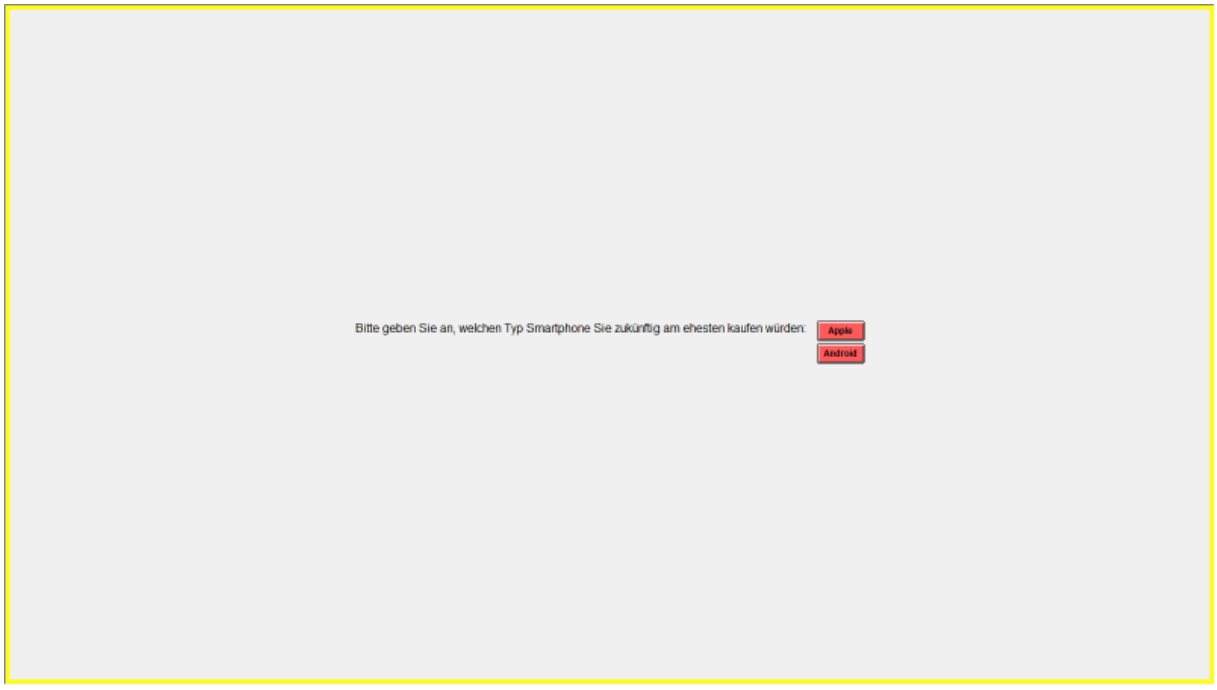


Figure 4: Game tree of the experiment

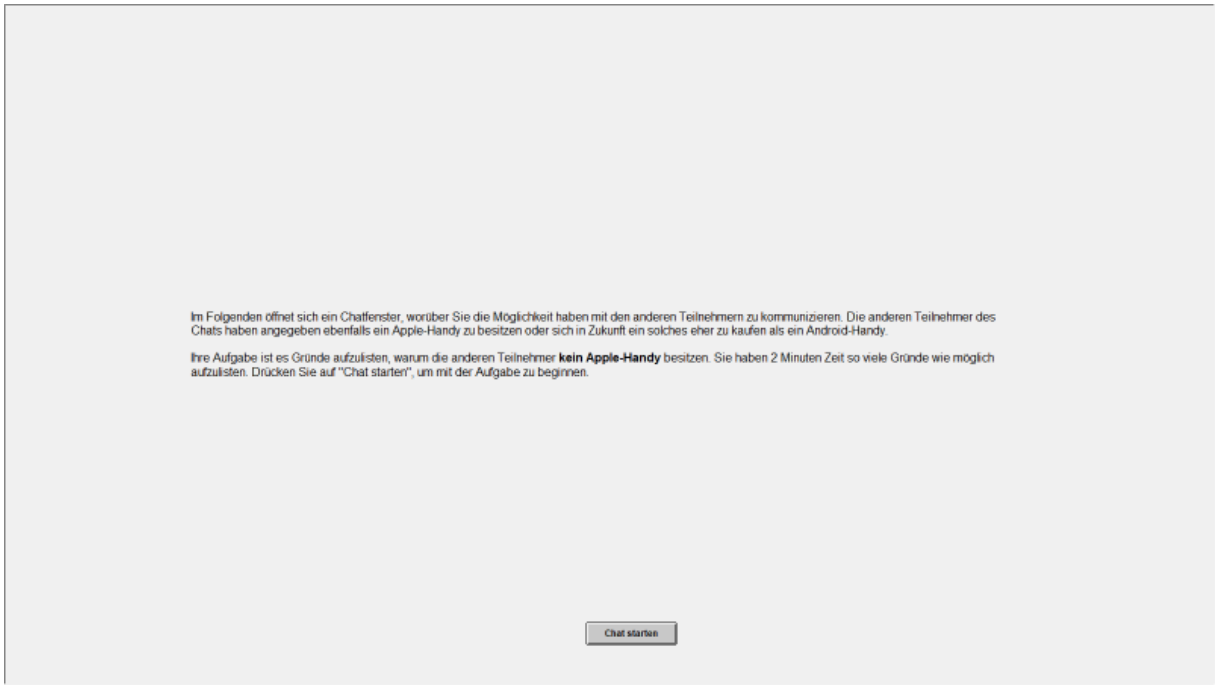
Appendix II

First part of the experiment: Selecting the type of smartphone

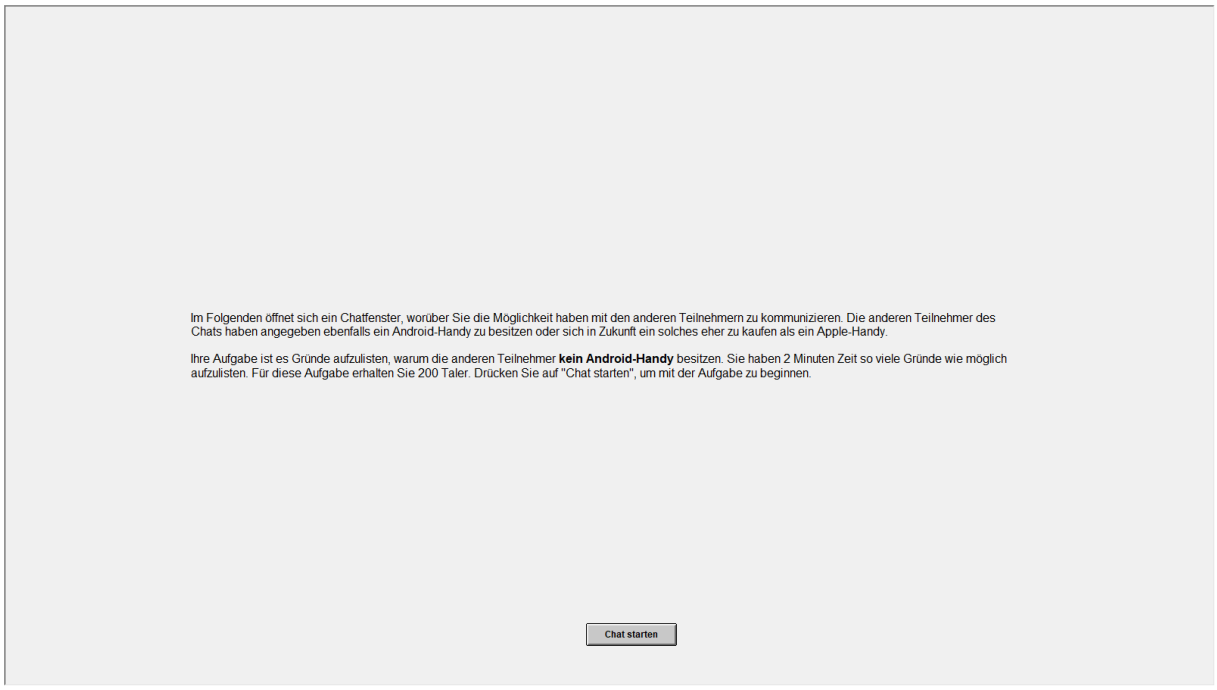
In case they have a different type of smartphone:



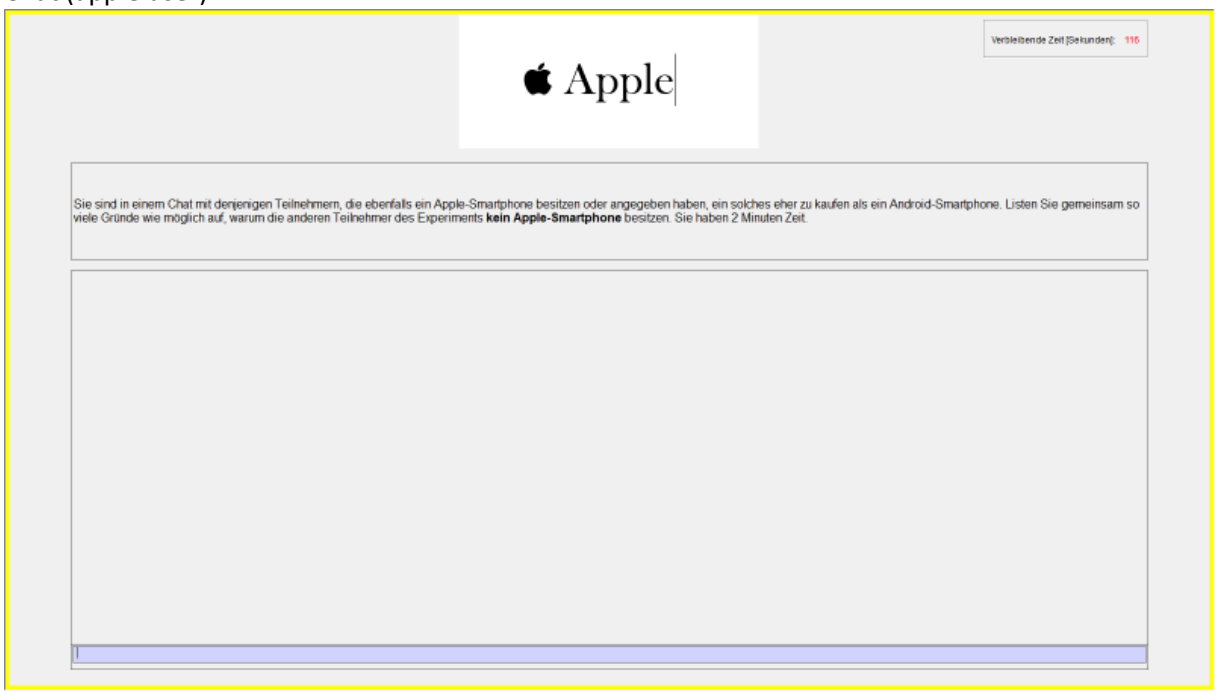
Instructions for the chat task in Control-TM:



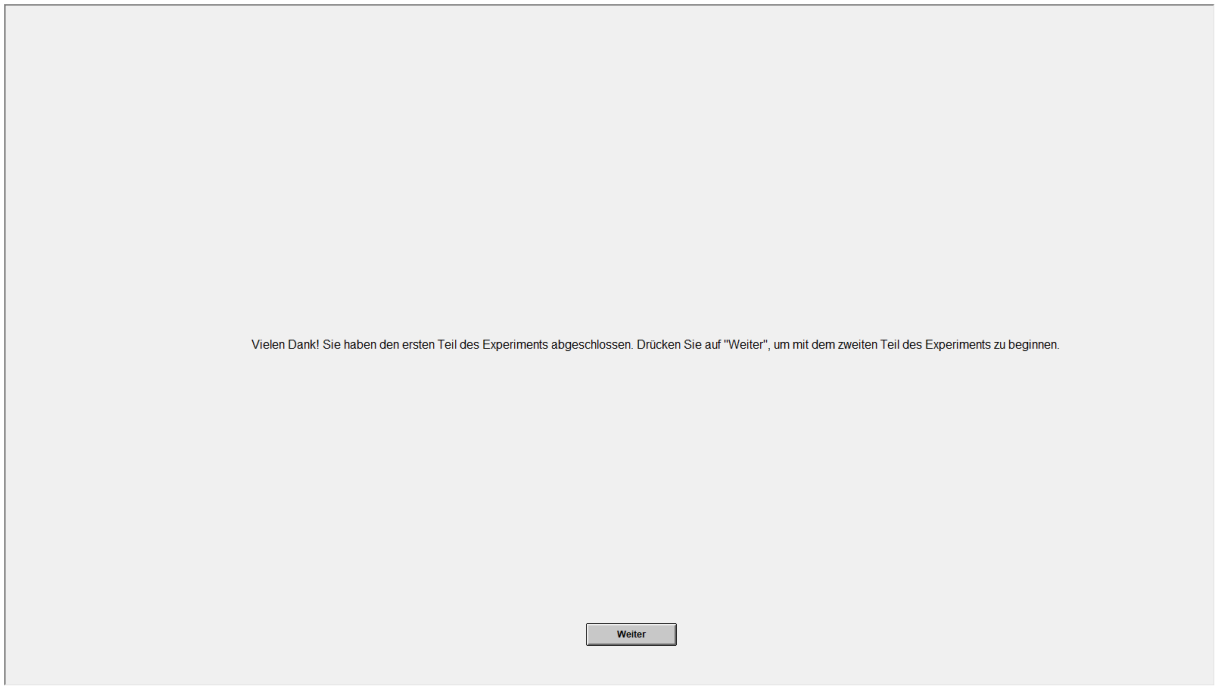
Instructions for the chat task in Framing-TM and Slidertask-TM:



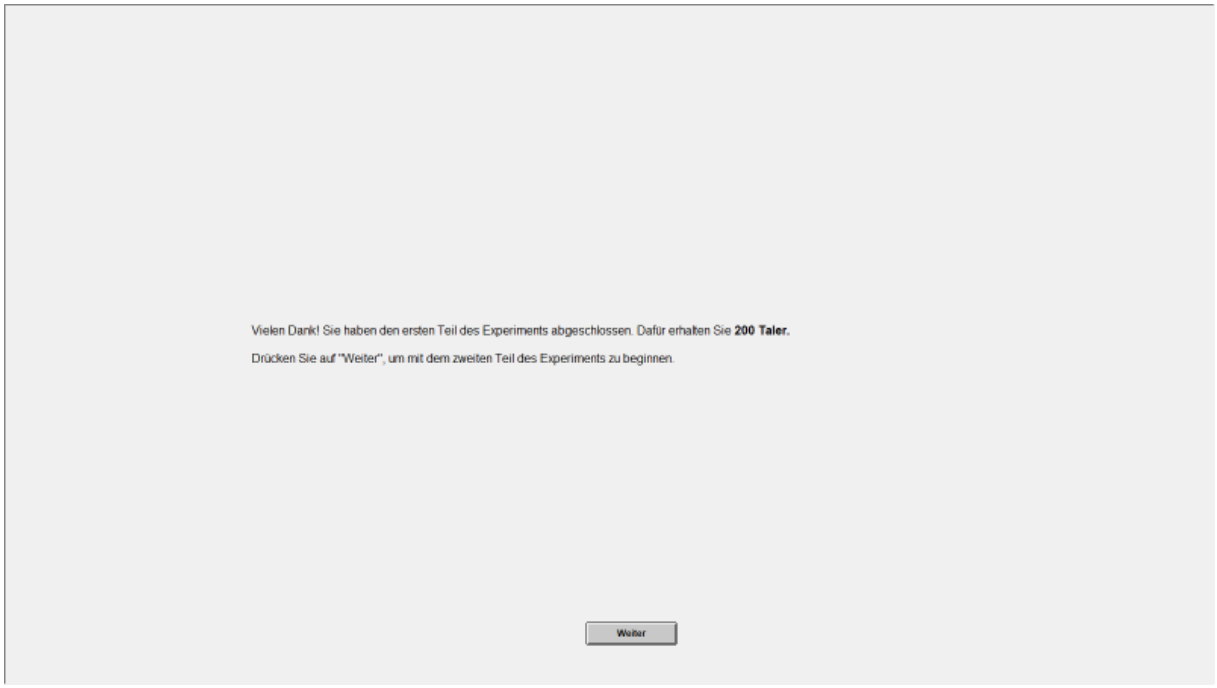
Chat (apple user):



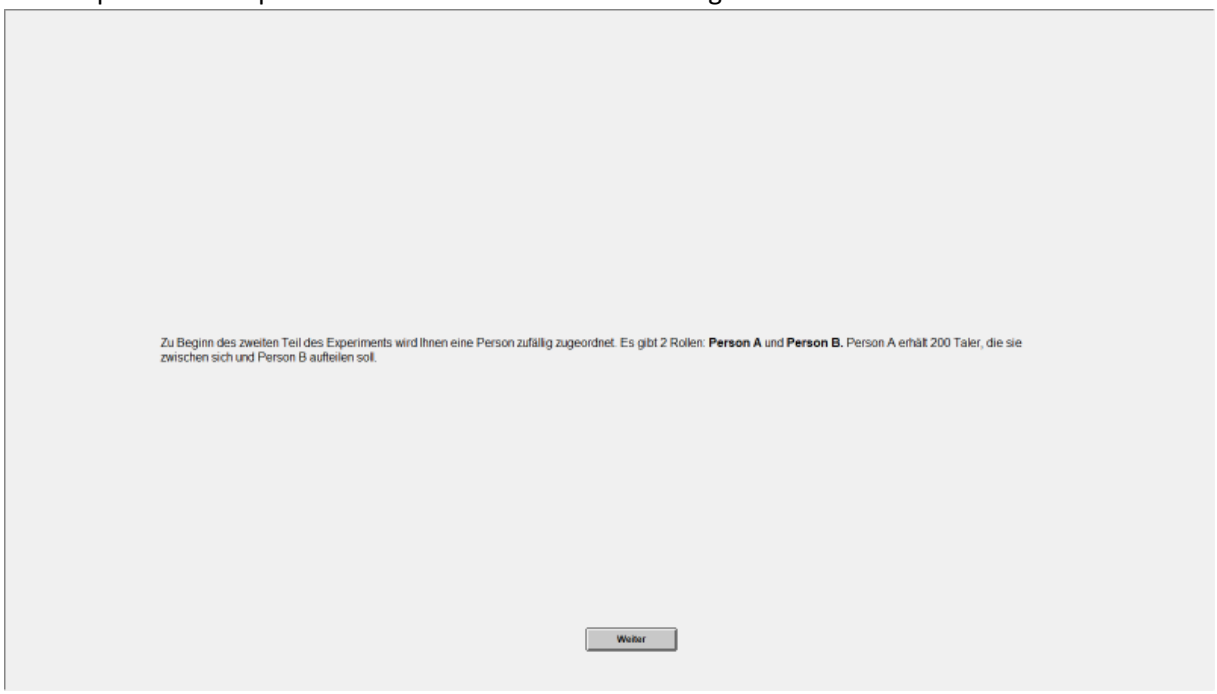
End of the first part of the experiment (Control-TM):



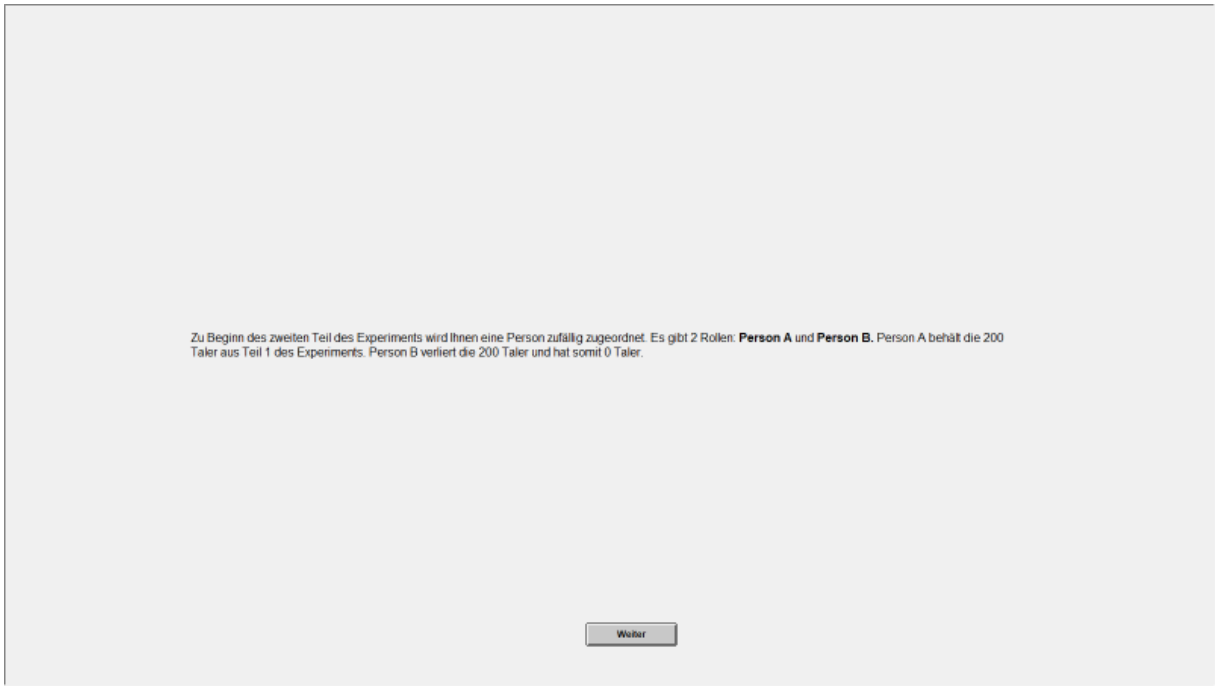
End of the first part of the experiment (Framing-TM and Slidertask-TM):



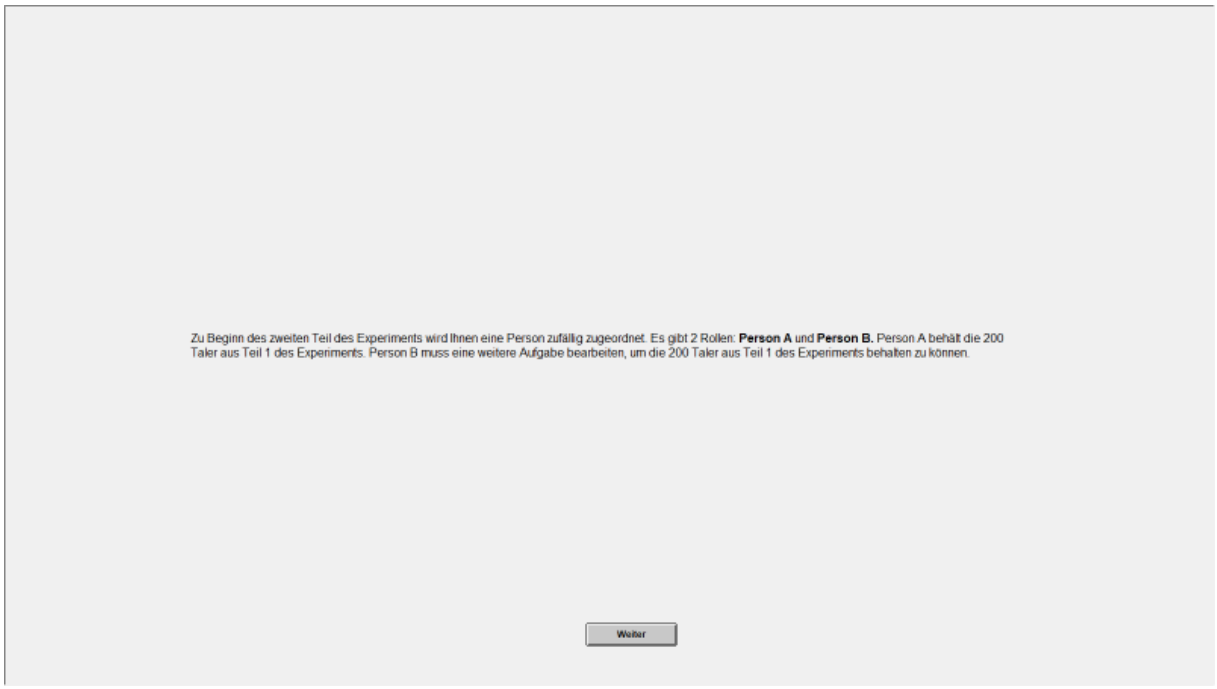
Second part of the experiment: Instructions of the dictator game in Control-TM:



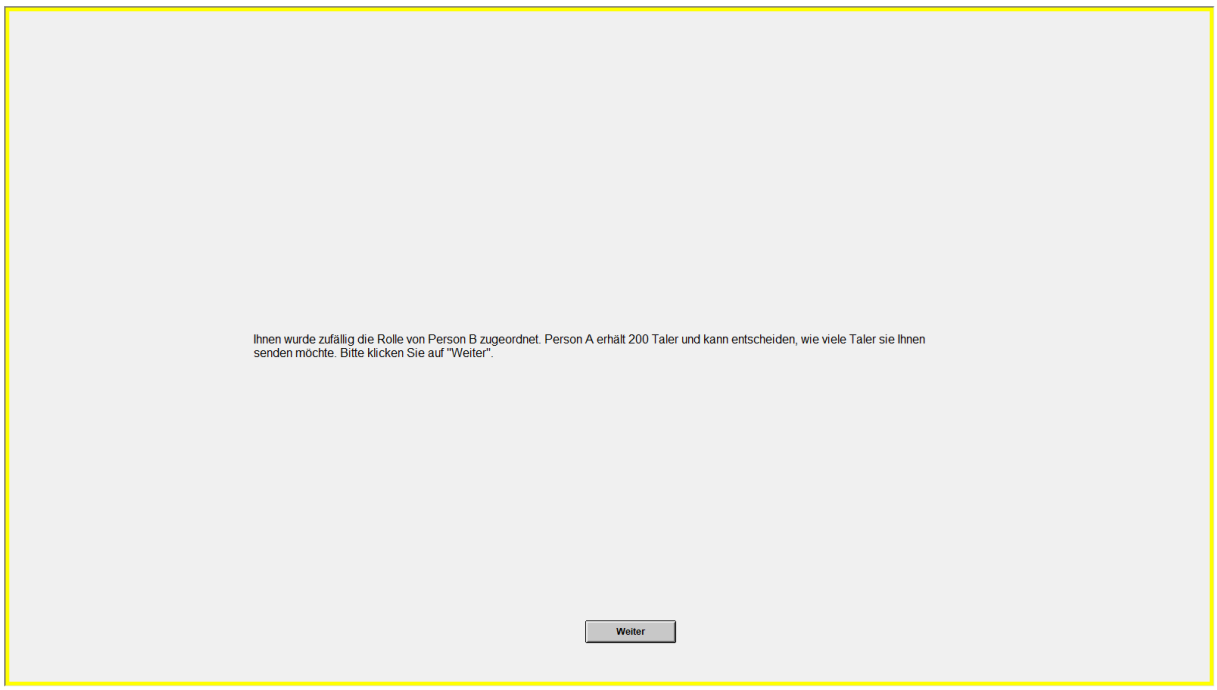
Instructions of the dictator game in Framing-TM:



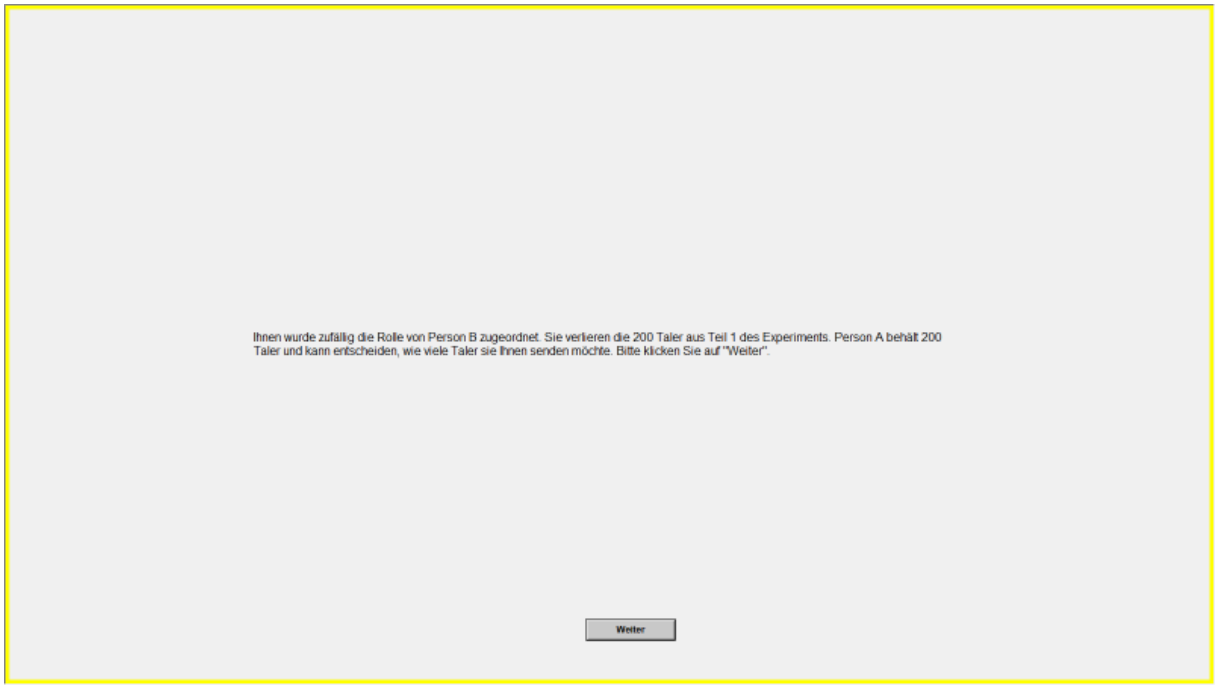
Instructions of the dictator game in Slidertask-TM:



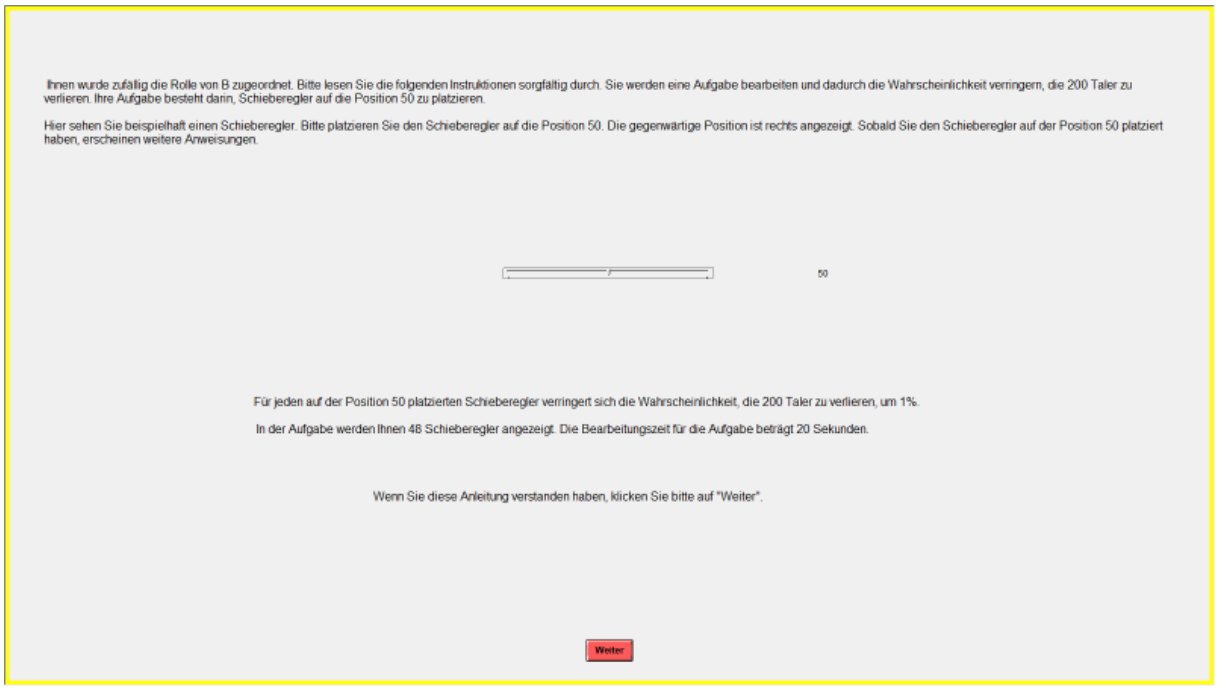
Receiver in Control-TM:



Receiver in Framing-TM:

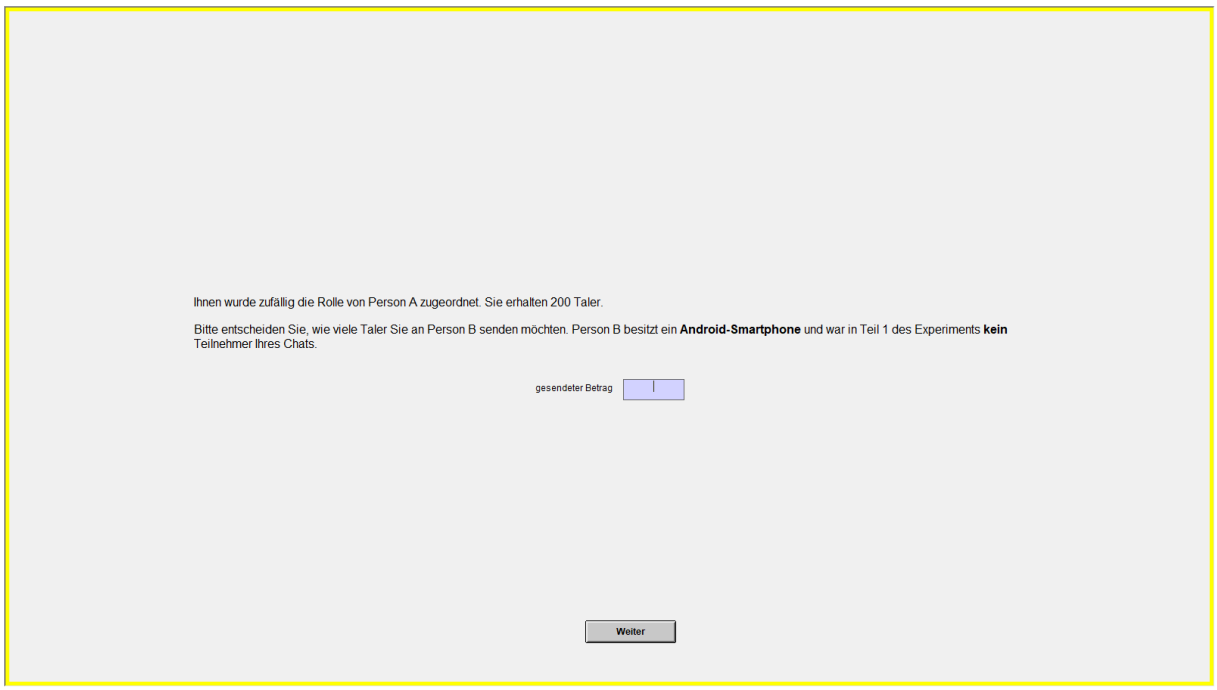


Receiver in Slidertask-TM:

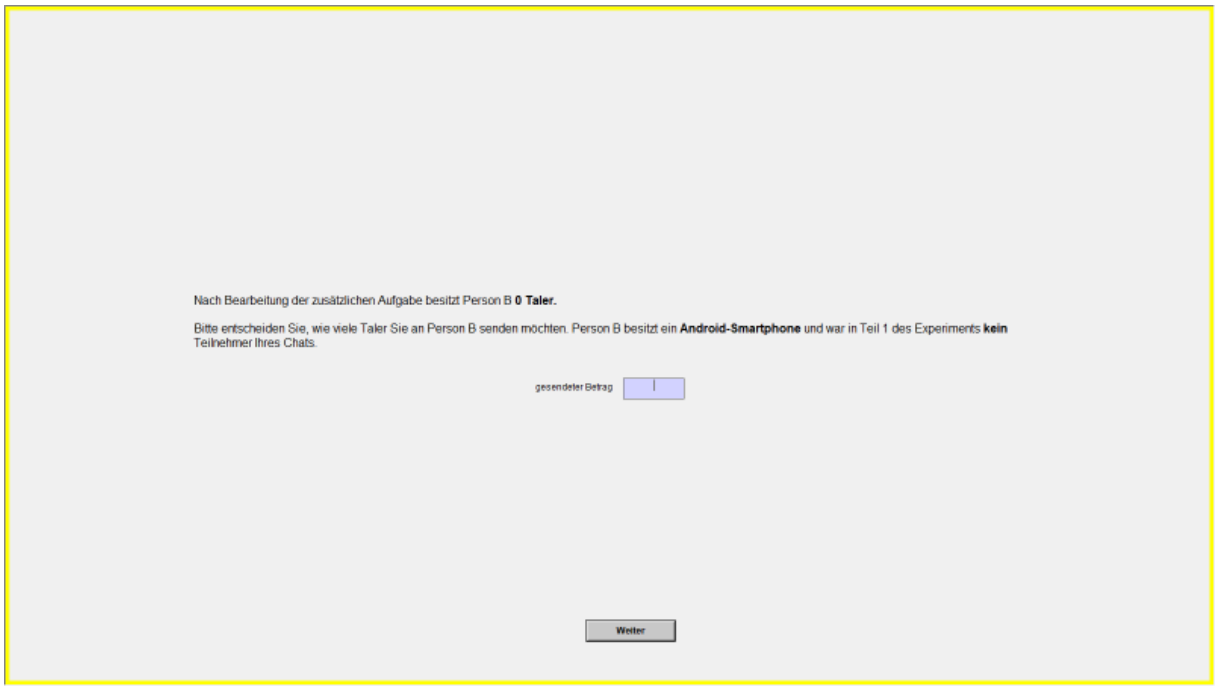


Slidertask

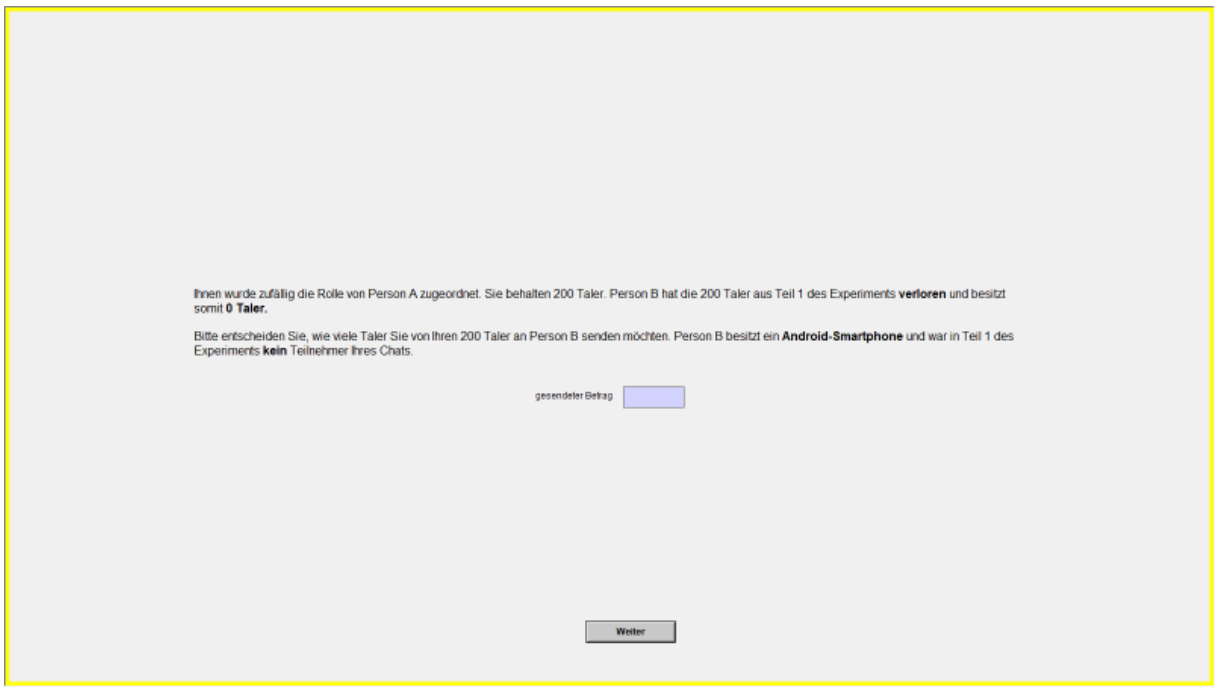
Instructions for dictator in Control-TM:



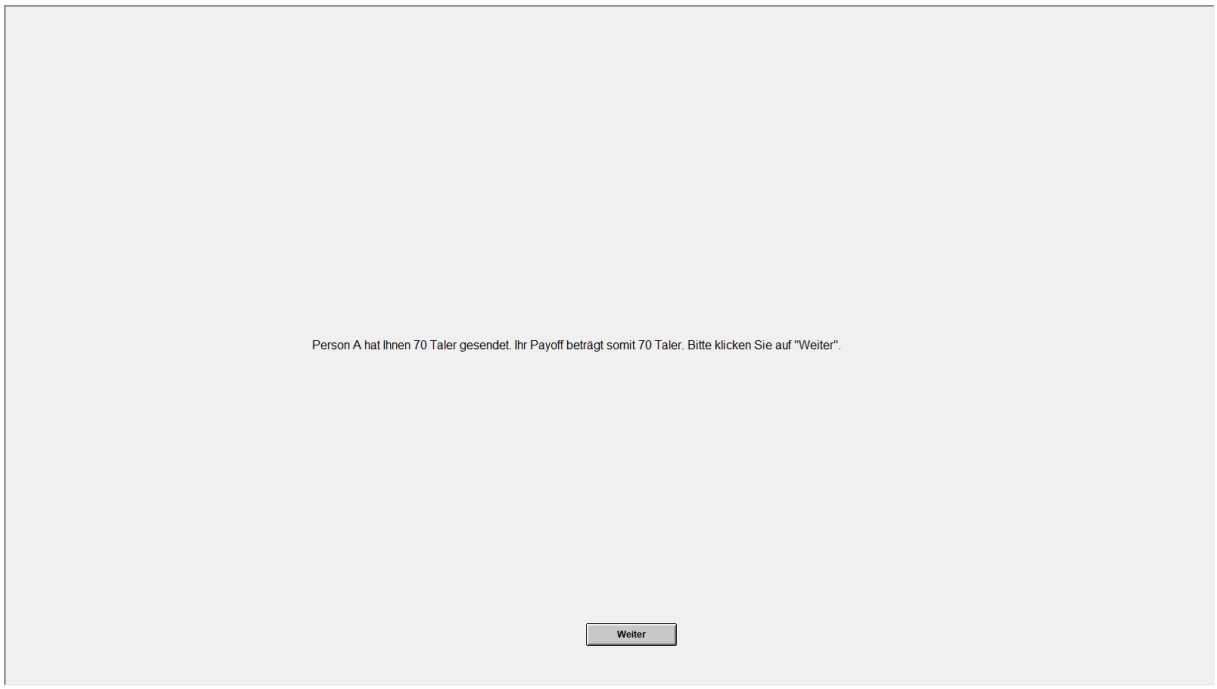
Instructions for dictator in Slidertask-TM:



Instructions for dictator in Framing-TM:



Payoff receiver:



Payoff dictator: