University of Passau Faculty of Business Administration and Economics Chair of Economic Theory Prof. Dr. Johann Graf Lambsdorff

Unconscious Influence or Exploiting the Sense of Guilt? Experimental Analysis of the Anchoring Effect and Reciprocity in a Sender - Receiver Game

Seminar: Lab and Field Experiments - Corruption, Conflict and Cooperation Lecturer: Dr. Katharina Werner Summer Term 2019

> Author: Diellona Grulaj Program: M.Sc. International Economics and Business

List of Contents

1. Introduction
2. Related Literature
3. Experimental Design
4. Procedure and Data
5. Hypotheses
6. Results7
6.1 Anchoring Effect
6.2 Reciprocity10
7. Discussion
8. Conclusion
References
Appendix
Appendix A. General Instructions
Appendix B. Questionnaire
Appendix C. Role-Specific Instructions16

1. Introduction

Nowadays, advertising has become one of the highest expenses for pharmaceutical companies (Schwartz and Woloshin, 2019). With an estimated fraction of 84%, marketing towards physicians makes up the greatest part (Marco et al. 2006). These marketing efforts vary from small gifts, like pens and coffee mugs, to larger and more expensive ones, for example meals or trips. This practice has raised many concerns regarding the conflict of interest, which arises when physicians accept these gifts. Opponents fear that gift giving will lead to a distortion in the behavior of physicians causing negative effects for patients. For this reason, decisionmakers in several countries introduced laws to prevent these negative impacts on patients. For example, the senate bill No. 790 of California regulates the scope of gifts, whereas the higher regional court of a German federal state issued a judgment to limit the value of gifts to physicians to one euro. The justification for the latter was the unobjective influence upon physicians when gifts exceed this threshold. Nevertheless, it can still be the case that even gifts below the threshold of one Euro impact physicians' behavior. One reason for that could be the anchoring effect. This means that individuals use information, which was previously given, to make decisions, even if the received information is unrelated to the issue. In this case it implies that physicians might prescribe the product of the company whose name they read last. This is a simple behavioral bias, which occurs mostly unintentionally and is hard to prevent (Blankenship et al. 2008). Another possible reason is reciprocity, so the obligation to respond to positive actions from others in the same way. This is especially problematic in the medical context. As the relationship between physician and patient is characterized by information asymmetry, the patient has to rely on the consultation of the physician. Objectivity in the advice of the physician is not given, if he feels guilty when not prescribing the drug of the company of which they received the gift. Therefore, pharmaceutical companies may exploit this sense of guilt and use the gifts as form of bribery. Whether the influence of promotional gifts on physicians' behavior stems from an anchoring effect or reciprocity, will be examined in this paper.

2. Related Literature

Anchoring and reciprocity as behavioral biases have been subject of many experiments in social sciences. Tversky and Kahnemann (1974) exposed their participants to irrelevant numeric anchors, which were chosen by spinning a wheel of fortune. They showed that anchoring occurrs across different tasks even if the anchor is irrelevant. This happened also for experienced researchers, when making intuitive decisions. Oppenheimer et al. (2008) show that

this anchoring occurs even for non-numeric anchors. In their experiment participants are asked to draw either long or short lines. Afterwards, they have to estimate, inter alia, the length of the Mississippi River. Individuals previously drawing longer lines give statistically higher estimations. These studies support the argument that anchoring has a strong impact on human behavior regardless of the type of anchor.

With regard to reciprocity, Fehr and Gächter (2000) show that individuals do not follow pure self-interest when making decisions but take social preferences into account. This means that they respond positively to kindness and gifts. The authors state that this fact is used by companies and even by charities. Latter give out small gifts to raise the probability of donating. Currie et al. (2013) used a field experiment to examine the effect of gifts on physicians. Two assistants acted as patients and visited the physician one after another. The treatment included a small gift for the physician before the medical examination started. Gift-giving lead to a statistically better service and less antibiotics prescription. Interestingly, even a third party profited from the reciprocal behavior, when this person was introduced as a friend of the gift giver. Malmendier and Schmidt (2017) conducted an experiment where subjects had to choose a product for their client. Before choosing a product, the decision-maker received a gift from a company producing one of the goods. Their results reveal that individuals strongly respond to gifts by favoring the gift-givers product at the expense of the third party. Even though these studies show that anchoring and reciprocity are strong drivers for human decisions, none of them contrasts both effects in one and the same study. As it is not clear whether the deviation in subjects' behavior after receiving a gift is due to reciprocity or anchoring, the present paper aims to investigate both effects in one experiment.

3. Experimental Design

The experiment was divided into two parts. First, every participant received a questionnaire together with a pen. The questionnaire contained short, arbitrary questions. These questions were set up such that they do not provoke any emotions with participants. All participants were requested to complete the questionnaire at the same time as well as to hand it over to the assistants at the same moment. By this it was assured, that participants were equally exposed to the questionnaire and the pen. The pen is especially important as it was used to trigger the anchor effect in the first treatment and the reciprocity in the second treatment. The questionnaire and the general instructions are given in Appendix XX.

The second part was a sender-receiver game, which was programmed and conducted using ClassEx. The design of the game is a simplified version of a sender-receiver game as seen in

Sánchez-Pagés and Vorsatz (2007) and Gurdal et al. (2013). It was played as a one-shot game as it was expected that the possible effects investigated here show up already at the first round. Adding more rounds would have increased the required time to carry out the experiment without yielding additional benefits. At the beginning of the game, participants were randomly matched into groups of two and either assigned to the role of a sender or a receiver. Afterwards, participants obtained instructions depending on their role. While both players received complete information about the game structure, only senders had information about the possible payoffs in this game. Senders were the first mover and had to propose one out of three boxes to the receiver. Each box represented a certain payoff for the players and was colored either in yellow, green or red for the senders, while they were all grey for the receivers. After receiving the proposal from the sender, the receivers decided to follow this proposal, i.e. to choose the same box as recommended or to choose one of the other two boxes. After the receivers made their decision, the game was over and the players received information regarding their own choice, the choice of the other group member and the resulting payoffs. The game structure is also shown in figure 1.



Figure 1: Game tree of the sender-receiver game

At the end of the experiment participants had to answer additional questions via ClassEx regarding their personal characteristics. The individual instructions as well as the more specific questionnaire are shown in Appendix XY.

The experiment contained a baseline, an anchoring treatment (AT) and a reciprocity treatment (RT) as shown in table 1. In the baseline the pen handed out had the color blue, so not the same color as any of the boxes and the information was given, that the pen had to be given back to the assistants after the experiment. This should ensure, that neither anchoring effect nor

reciprocity was caused. Participants in the baseline served as a control group and show the frequencies of the colors chosen without any influence from the pen. So they show how participants in the other two treatments would have made their choices in absence of the treatment. Payoffs in the baseline and AT were identical in each box and always $10\in$ for the sender and $10,02\in$ for the receiver. This condition was relevant to receive the unbiased color preferences. In addition to that, the sum of payoffs of all subjects totaled $20,02\in$ regardless of the treatment. Otherwise there would have been other effects influencing the choice of the sender, e.g. profit maximization or social preferences.

	Baseline	Anchoring Treatment	Reciprocity Treatment
Color of pen	Blue	Yellow	Yellow
Information regarding pen	Pen is provided only for the duration of the experiment and will be collected at the end	Pen is provided only for the duration of the experiment and will be collected at the end	Pen is a gift from the company uma for participating in the experiment and may be retained afterwards
Payoffs	Sender: 10€ Receiver: 10,02€	Sender: 10€ Receiver: 10,02€	If blue or red box chosen: Sender: $10 \notin / \text{Receiver: } 10,02 \notin / \text{Company uma: } 0 \notin$ If yellow box chosen: Sender: $10 \notin / \text{Receiver: } 10 \notin / \text{Company uma: } 0,02 \notin$

Table 1: Description of the treatments

The AT was identical to baseline with one exception: the color of the pen. The pen was yellow in this treatment and therefore, represented the same color as one of the boxes. This fact was not communicated to the participants, so that any occurring effect was unconscious or at least inconspicuous. Again, it was announced that the pen will be collected at the end, so that reciprocity was prevented.

The RT was similar to the AT regarding the color of the pen and boxes but differed in the information regarding the pen. Before starting the game, it was announced that the pen was a gift from the company uma for participating in the experiment and that they are allowed to keep the pen after the experiment. The senders obtained additional information in their instruction that the company uma will receive $0,02\varepsilon$ for each yellow box proposed, while the receiver would have a $0,02\varepsilon$ smaller payoff in that case. This means that by recommending the yellow

box, the senders reward the company uma at the expense of their group member. The receiver could still reach the higher payoff by not following this proposal. As the senders faced the same payoffs regardless of the box recommended, they should also propose each box with equal frequency. If the yellow box is proposed disproportionately often compared to the other treatments, this would indicate that senders may feel guilty when not reciprocating the gift.

4. Procedure and Data

The experiment was conducted from the 16 - 18 July 2019 during tutorials of the bachelor course 'Macroeconomics' at the University of Passau and announced already one week earlier. As different pens had to be distributed and different general instructions had to be read out, it was not possible to run the treatments within one session. For this reason, each treatment was run at a different session of the tutorial. To reach the highest possible comparability between the subjects, the same course was chosen and the same lecturer was present for the time of the experiment. This means that even though the treatments where run at different times, it can be assumed that, on average, students should not differ systematically regarding their characteristics. This would ensure that the obtained effects are causal and not given due to unobserved differences between subjects.

Before starting the experiment, general instructions were read aloud, so that every participant had the same level of knowledge about the game. These instructions contained information on the procedure of the experiment and the payoffs. The subjects received the information that any money earned during the game will also be paid out to them by a third party. It was announced, that this third party was a law student without knowledge about the experiment, so that it was not possible to draw conclusions about the decisions made. This should ensure that the students make their decisions as unaffected from social biases as possible.

As already mentioned in the previous chapter, the experiment was divided into two parts. The first part was a questionnaire in paper form, which had to be filled in using a blue (baseline) or yellow (treatments) pen. Both were handed out to each student before entering the lecture hall with the instruction to not use it until it was announced. After answering all the questions, the questionnaires were collected by assistants. The second part was a sender- receiver game, which was programmed and conducted using the online platform ClassEx, developed by the Chair of Economic Theory at the University of Passau. To participate in the experiment, each student had to log in with their smartphone or notebook. After login in and being matched into groups of two, each participant was assigned to a role and received his role-specific instructions on the

screen of his technical device. Before the winners were drawn, every participant had to answer more specific questions including their age, gender, faculty and semester. At the very end, three winners were drawn, who received a win code. This code had to be shown to the third party after the tutorial ended. To ensure double blindness, the payment was handed over in a cabin with sight protection and envelopes were used.

In total, 397 observations were collected, but as the colored boxes were only shown to the senders, the data set is restricted to this subsample. This leads to a reduced number of observations of 209. The detailed summary statistics are listed in table 2 and a t-test to check whether the randomization worked is given in table 3.

	Baseline	Anchoring Treatment	Reciprocity Treatment
Total number of observations	172	120	105
Number of senders	91	65	53
Share of female participants	70,9%	61,2%	61,7%
Average age	20,7	20,5	21,2
Average number of semesters	2,76	2,80	2,82
Share of students from faculty of business administration and economics	42,44%	11%	36,19%

Table 2: Summary statistics

	(1)	(2)	(3)
	Baseline vs. AT	Baseline vs. RT	AT vs. RT
	باد باد		
Gender	-0.163**	-0.0680	0.0946
	(-2.16)	(-0.87)	(1.05)
Age	0.0242	0.554**	0.530^{*}
	(0.12)	(2.12)	(1.91)
Number of semesters	0.130	0.138	0.00842
	(0.65)	(0.62)	(0.04)
Faculty	0.336***	0.146	-0.191**
-	(4.42)	(1.65)	(-2.36)
Observations	156	144	118

t statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 3: Balance test for the characteristics of subjects across treatments

While the average number of semesters is balanced across the treatments, this is not the case for the gender composition, average age and faculty. The share of female participants in baseline is significantly higher compared to the other treatments, the average age is significantly higher in the RT, whereas the percentage of students from the faculty of business administration and economics is significantly lower in the AT compared to the other treatments. Except for the faculty, the differences in the other characteristics seem to be small and should not bias the results. Nevertheless, when analyzing the treatments effects, these differences are controlled for.

5. Hypotheses

As research in social sciences show, subjects are prone to be influenced by anchors, independent of the relevance of the anchor for the task performed (Brewer et al., 2007). Additionally, as Oppenheimer et al. (2008) prove, the effect occurs also for non-numeric anchors. For this experiment it implies that subjects in the AT will be affected by the yellow pen, which served as a non-numeric anchor, so that they will rather recommend the yellow box instead of one of the other two boxes. This leads to the first hypothesis.

H 1a: Recommendation of the yellow box is higher in the anchoring treatment than in baseline.

Besides the anchoring effect, the pen may also induce reciprocity when it is given to the subjects as a gift. As shown in behavioral economics research, subjects tend to reward gifts received by giving something back (Fehr and Gaechter, 2000). This can happen in form of money, own productivity or better services. As the pen was explicitly declared as a gift from the company uma, participants in the RT will reciprocate and propose the yellow box more often.

H 2: Recommendation of the yellow box is higher in the reciprocity treatment than in the anchoring treatment.

6. Results

A first overview of the results is given in figure 2. It can be seen that the proportion of senders recommending the yellow box is 7.25 percentage points higher in the AT compared to the baseline and 23.46 percentage points higher in the RT than in AT.

This indicates that the pen indeed influenced the subjects' behavior by its color and when framing it as a gift, the bias is even higher. These effects will be analyzed more precisely in the following subsections.



Figure 2: Percentage frequency of each color proposal in baseline and treatments

6.1 Anchoring Effect

To obtain the anchoring effect logistic regressions are run with the following forms:

$$logit(y_i) = \alpha_1 + \beta_1 T_i + \varepsilon_i \tag{1}$$

$$logit(y_i) = \alpha_2 + \beta_2 T_i + X'_i \lambda + \mu_i$$
⁽²⁾

Here, y_i indicates whether the subject recommended the yellow box or not, T_i is an indicator for the treatment status. Robust standard errors are given by ε_i and μ_i , respectively. To address the differences in characteristics between baseline and AT, a set of control variables X'_i is included (2). The logistic regression form is chosen as the dependent variable is dichotomous and takes the value 1 when the subject recommended the yellow box and is 0 otherwise.

The results are given in table 4 and support the first hypothesis, even though the treatment effect is not statistically significant regardless of adding control variables or excluding them. Overall, the controls do not influence the decision of proposing the yellow box significantly. Despite the fact that the treatment effect is not statistically significant, the positive coefficient can still be seen as indicator that being in the AT and therefore using the yellow pen increases the odds of proposing the yellow box.

	(1)	(2)
	Yellow box	Yellow box
	recommended	recommended
Anchoring Treatment	0.328	0.376
	(0.95)	(1.01)
Age		0.103
1.50		(0.62)
0 1		0.220
Gender		0.338
		(0.83)
Faculty		-0.0399
-		(-0.10)
Number of semesters		0.205
Tumber of Semesters		(1.32)
	***	(1.52)
Constant	-0.863***	-3.798
	(-3.75)	(-1.16)
Observations	156	156

z-statistics in parentheses * p < 0.1, ** p < 0.05, *** p < 0.01

Table 4: Results of the anchoring treatment effect using a logit regression form The previous regression simply compares the overall share of yellow boxes recommended in baseline and in AT and therefore, does not account for the fact that the anchoring effect might be stronger when the yellow box is the first box appearing on the screen. It is possible that subjects are more prone to the anchoring effect if the anchor color appears first. The results depicted in table 5 support this argument.

	(1)	(2)
	Yellow box	Yellow box
	recommended	recommended
First Box Yellow	1.597***	1.760^{***}
	(2.63)	(2.60)
Age		-0.357
C C		(-0.85)
Gender		0.669
		(0.93)
Faculty		0.312
		(0.35)
Number of semesters		0.330
		(1.24)
Constant	-1.764***	3.754
	(-3.96)	(0.44)
Observations	65	65

z statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 5: Results of the detailed analysis of the anchoring effect

It shows that being in AT and yellow being the first color seen on the screen, is associated with a higher recommendation of the yellow box. Altogether it seems, that the anchor color indeed does play a role for the decision of the subjects and that it biases their behavior. This result holds independently of including or excluding controls.

6.2 Reciprocity

The effect of the gift on the share of subjects recommending the yellow box is identified analogously to the anchoring effect. Now T_i indicates whether a person was part of the AT or RT. The results of this regression can be seen in table 6. Again, column 1 is the estimation without controls, whereas column 2 shows the regression with controls. It is shown, that the two columns differ only slightly and the control variables do not have a significant impact on the decision of the sender.

	(1)	(2)
	Yellow box	Yellow box
	recommended	recommended
Reciprocity Treatment	0.957^{**}	0.987^{**}
	(2.50)	(2.40)
Age		-0.144
		(-1.02)
Gender		0.291
		(0.71)
Faculty		-0.164
		(-0.37)
Number of semesters		0.106
		(0.62)
Constant	-0.536**	2.079
	(-2.07)	(0.74)
Observations	118	118

z-statistics in parentheses * p < 0.1, ** p < 0.05, *** p < 0.01

Table 6: Results of the reciprocity treatment effect using a logit regression form

It becomes clear, that the gift leads to a statistically significant increase in the odds of proposing the yellow box, which supports the second hypothesis. The regression results in table 6 together with the 23.46 percentage points higher share as seen in figure 2 show that the small gift lead to a strong influence on subjects' behavior. The gift biased the decision of the senders such that they rewarded the company for giving them the pen. As the costs of a pen are far below one euro, these findings suggest that reciprocity is induced already by small or cheap gifts.

In practice this means that companies do not have to spend a lot on promotional gifts to reach the desired effect, i.e. to trigger reciprocity.

7. Discussion

In accordance with the previously mentioned studies, results of this experiment show that giftgiving does influence subjects' behavior. The significant increase in the probability of proposing the yellow box in RT indicates that individuals feel obliged to reciprocate gifts. This becomes problematic in the context of medical services. Patients rely on physicians' expertise and expect unbiased services. As long as physicians feel obliged to reciprocate gifts from pharmaceutical companies by prescribing their products, there will be market distortion. These distortions lead to costs for patients and the health sector as a whole. Overall, it seems that the major driver for this behavioral bias is reciprocity, as an overall effect for anchoring could not be found. This may suggest that individuals are possibly not prone to colors as anchors. Another reason could be the short time span in which the subjects used the yellow pen. As Wilson et al. (1996) showed, the anchoring effect becomes larger, when subjects are longer exposed to the anchor. Therefore, increasing the time span of the exposure might induce the anchoring effect and facilitate a better analysis.

Another limitation of this experiment is the comparability of groups. As each treatment was conducted in one session at a different day and time, it is possible that subjects are not comparable across treatments. As seen in the summary statistics, the characteristics are not balanced across groups, making it hard to prove comparability. Even though the characteristics seem to differ across treatments, they did not have a significant effect regardless of the regression specification. This indicates that the differences are present, but do not bias the effects. To circumvent this problem and other noise it would have been optimal to conduct the experiment in a laboratory. By this it would also be possible to collect more data, which is the last limitation. Even though a high number of observations was collected, an increase in observations would improve the analysis.

8. Conclusion

The present paper aimed to answer the question whether the change in individuals' behavior after receiving a gift stems from an anchoring effect or the need to reciprocate. As previous scientific work focused on either one of the two effects, this study closes the gap in literature. The results show that giving a gift to individuals distorts their decisions in a way that they reward the gift-giver at the cost of another subject. This happens even if the receiver of the gift has no benefit from reciprocating, indicating the strong influence of this effect. In the context of the health industry it means that pharmaceutical companies use small gifts as a form of bribery to bias physicians' behavior to increase profits as the gifts are tied to certain expectations. It is conceivable that physicians modify their prescriptions in a way that they favor the gift-givers products even if they are not the best medication for the patient. This leads to a severe distortion in the health market and to negative effects for patients. To protect the interest of patients, a more stringent regulation of pharmaceutical advertising is needed. As seen in the present study, these adverse effects also occur for small, inexpensive gifts and therefore, any value limit above zero is still too high. As long as these gifts and benefits from pharmaceutical companies are not completely prohibited, there will be scope for manipulation of physicians, hurting especially the ones who depend the most on them, the patients.

References

Blankenship, Kevin & Wegener, Duane & Petty, Richard & Detweiler-Bedell, Brian & Macy, Cheryl. (2008): *Elaboration and consequences of anchored estimates: An attitudinal perspective on numerical anchoring*. Journal of Experimental Social Psychology - J EXP SOC PSYCHOL. 44. 1465-1476

Brewer, N. T., Chapman, G. B., Schwartz, J. A., & Bergus, G. R. (2007): *The Influence of Irrelevant Anchors on the Judgments and Choices of Doctors and Patients*. Medical Decision Making, 27(2), 203–211.

Currie Janet, Wanchuan Lin, Juanjuan Meng (2013): *Social networks and externalities from gift exchange: Evidence from a field experiment*, Journal of Public Economics, Volume 107, Pages 19-30

Fehr Ernst, Simon Gächter (2000): "*Fairness and Retaliation: The Economics of Reciprocity*." Journal of Economic Perspectives, 14 (3): 159-181.

Gurdal Mehmet, Ayca Ozdogan, Saglam Ismail. (2013): *Truth-telling and trust in senderreceiver games with intervention: An experimental study*. Review of Economic Design.

Malmendier Ulrike, Schmidt Klaus M. (2017): You Owe Me, American Economic Review, 107(2): 493–526

Marco Catherine, Moskop John C., Solomon Robert C., Geiderman Joel M., Larkin Gregory L.(2006): *Gifts to Physicians from the Pharmaceutical Industry: An Ethical Analysis*, Annals of Emergency Medicine, Volume 48, Issue 5, Pages 513-521

Oberlandesgericht Stuttgart, Judgment of 22 February 2018, Reference number 2U39/17, *https://oberlandesgericht-stuttgart.justiz bw.de/pb/,Lde/5044337/?LISTPAGE=1178276% 2520(209-06-02)*, accessed on 28 October 2019

Oppenheimer Daniel M., LeBoeuf Robyn A., Brewer Noel T. (2008): *Anchors aweigh-A demonstration of cross-modality anchoring and magnitude priming*, Cognition, Volume 106, Issue 1, Pages 13-2

Sánchez-Pagés, Santiago & Vorsatz, Marc. (2007): An Experimental Study of Truth-Telling in Sender–Receiver Games. Games and Economic Behavior. 61. 86-112

Schwartz LM, Woloshin S. (2019) *Medical Marketing in the United States*, 1997-2016. JAMA. 321(1):80–96.

State Senate of California, Senate Bill No. 790 of 19 September 2018 https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB790, accessed on 28 October 2019

Tversky, A., & Kahneman, D. (1974): *Judgment under Uncertainty: Heuristics and Biases*. Science, 185(4157), 1124–1131.

Wilson, T. D., Houston, C. E., Etling, K. M., & Brekke, N. (1996): *A new look at anchoring effects: Basic anchoring and its antecedents*. Journal of Experimental Psychology: General, 125(4), 387-402.

Appendix

Appendix A. General Instructions

Herzlichen Willkommen. Bevor es mit der Makro-Übung weitergeht, würden wir ein Experiment durchführen. Bitte verhaltet euch jetzt für die Instruktionen, aber auch für die Dauer des Experiments ruhig.

Das Experiment besteht aus 2 Teilen:

Der erste Teil ist ein allgemeiner Fragebogen in Papierform. Als Sie den Hörsaal betreten haben, haben Sie alle einen Kugelschreiber und einen Fragebogen bekommen. <u>Nachdem</u> ich die allgemeinen Instruktionen vorgelesen habe, würde ich Sie alle bitten, den Kugelschreiber zu nutzen, um den Fragebogen zu beantworten.

Nachdem alle die Fragebögen ausgefüllt haben und der zweite Teil startet, werden wir die Fragebögen und die Kugelschreiber einsammeln. <u>Ich würde Sie alle bitten, die Fragebögen</u> zusammen mit den Kugelschreibern an die Seiten durchzugeben. Es ist sehr wichtig, dass Sie die Kugelschreiber auch wirklich abgeben, da wir sie danach noch für weitere Experimente brauchen. / Der Kugelschreiber, den Sie am Anfang des Experiments erhalten haben, ist ein Geschenk der Firma uma dafür, dass Sie an diesem Experiment teilnehmen. Sie dürfen den Kugelschreiber nach dem Experiment behalten.

Der zweite Teil des Experiments ist ein Spiel in Classex. Dafür können Sie alle den QR Code auf den Fragebögen einscannen oder die Anweisung Links befolgen und sich so anmelden. Alle für das Spiel benötigten Instruktionen sehen Sie dann auf Ihrem Smartphone, Tablet oder Laptop. Falls das Internet nicht gehen sollte, bitte ich Sie Ihre mobilen Daten zu nutzen, damit jeder die Chance hat mitzuspielen und zu gewinnen.

Bevor es am Ende zur Gewinnerziehung kommt, wird es auch in Classex einen kleinen Fragebogen geben, der dann aber spezifischer ist.

Nachdem alle Ihre Eingaben in Classex gemacht haben, werden 3 Personen ausgewählt, die Ihre erspielte Auszahlung auch wirklich bekommen. Im Rahmen dieses Experiments werden insgesamt 100€ ausgezahlt. Ob Sie für die Auszahlung ausgelost wurden, erfahren Sie auch sofort nach dem Spiel. Bitte machen Sie dafür einen Screenshot von dem Gewinn-Screen oder schreiben Sie sich den Gewinncode auf.

Die Auszahlung erhalten Sie am Ende der Veranstaltung vor dem Hörsaal. Dort ist im Foyer ein durch Trennwände geschützter Bereich aufgebaut. Man sieht von außen also nicht was oder wie viel ausgezahlt wird. Spieler, die ausgelost wurden, begeben sich bitte nach dem Spiel zu diesen Trennwänden und zeigen den Gewinncode vor. Die Person, die die Auszahlungen durchführt, ist fachfremd und hat keinerlei Informationen über den Ablauf dieses Experiments. Sie kann also durch die Höhe der Auszahlung keinerlei Rückschlüsse auf die Spielweise oder die Wahl der Spieler ziehen. Fall es jetzt keine Fragen geben sollte, starten wir das Experiment.

Dann bitte ich Sie jetzt die Fragebögen auszufüllen. Falls Sie fertig sind, bleiben Sie bitte ruhig, bis alle den Fragebogen ausgefüllt haben und wir mit dem zweiten Teil beginnen können.

Appendix B. Questionnaire

Login bei Class-Ex: https://classex.uni-passau.de

- 1. Wähle: Uni Passau
- 2. Wähle: Makroökonomik
- 3. Wähle: Teilnehmerinnen und Teilnehmer
- 4. Wähle: keynes

Fragebogen zum Experiment

Jegliche Angaben im Rahmen dieser Befragung sind anonym. Vielen Dank für Ihre Unterstützung

In welchem Bundesland haben Sie Ihr Abitur erlangt?

Würden Sie Ihren Studiengang weiterempfehlen? Wenn ja, weshalb?

Wie weit wohnen Sie von der Universität entfernt? (Minuten oder km)

Sind Sie beim Hochschulsport angemeldet? Wenn ja, welche Sportart?

Was unternehmen Sie in Passau besonders gerne?

Welches ist Ihr Lieblingsrestaurant in Passau?

Alternativ:

Appendix C. Role-Specific Instructions For the Senders:





Sie haben Ihrem Mitspieler Box 2 empfohlen. Ihr Mitspieler hat daraufhin Box 2 gewählt. Ihre Auszahlung beträgt: 10€

Fragebogen starten



Bevor die Gewinner ausgelost werden, bitten wir Sie noch die nachfolgenden Fragen zu beantworten.

 \sim

 \sim

 \sim

Alter:

G	e	s	С	h	le	С	h	t

Bitte auswählen

Fakultät:

Bitte auswählen

Fachsemester:

Wurde Ihnen am Anfang des Experiments ein gelber Kugelschreiber zur Verfügung gestellt?

Bitte auswählen

Eingaben absenden

For the Receivers:

Herzlich Willkommen. Sie spielen mit einem zufällig ausgewählten Teilnehmer in diesem Hörsaal. Ihr Mitspieler wird Ihnen nachfolgend eine Box empfehlen. Hinter jeder Box verbirgt sich eine gemeinsame Auszahlung von insgesamt 20,02€. Nachdem Sie die Empfehlung Ihres Mitspielers erhalten haben, können Sie dieser nachgehen oder eine andere Box wählen. Ihre Wahl entscheidet am Ende über die Auszahlung für beide Spieler.

Verstanden

<pre></pre>
Ihr Mitspieler hat Ihnen folgende Box empfohlen: Box 2 . Sie haben jetzt die Möglichkeit der Empfehlung nachzugehen oder eine andere Box auszuwählen.
Bitte entscheiden Sie sich für eine Box.
Box 1
Box 2
Box 3



Ihr Mitspieler hat Ihnen Box 2 empfohlen. Sie haben daraufhin Box 2 gewählt. Ihre Auszahlung beträgt: 10€

Fragebogen starten

F	
LA	

Bevor die Gewinner ausgelost werden, bitten wir Sie noch die nachfolgenden Fragen zu beantworten.

 \sim

 \sim

 \sim

Alter:

Geschlecht:

Bitte auswählen

Fakultät:

Bitte auswählen

Fachsemester:

Wurde Ihnen am Anfang des Experiments ein gelber Kugelschreiber zur Verfügung gestellt?

Bitte auswählen

Eingaben absenden