The Influence of International Experience on Bargaining Behavior *

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Abstract

Over a period of time rational behavior/strategies of the people have been studied using ultimatum games in the form of dictator game, trust game, social ultimatum game etc. The typical ultimatum games includes a distribution of the specific amount of money/monetary benefit through a proposal by a person designated as "proposer" to himself / herself and to a different person designated as "responder". The proposal from the "proposer" will be implemented when the "responder" accepts it and there by terminating the game. In case the "responder" rejects the proposal the game will terminated with both the person involved in the game (prosper and responder) gaining nothing. The subject of the study relates to the bargaining Behavior through ultimatum game in the form of dictator game of people taking into account of the international experience, linked to the question of whether the international experience of the respondents positively influences their fairness and justice. In order to confirm or reject these results, n (number) = 270 German volunteers participated in a corresponding experimental analysis. The results confirmed that the international experience of the test persons in part can have a positive influence on the bargaining behavior, if one must react to the decision of a predecessor.

Keywords: International experience, Bargaining Behavior, Justice, Self-interest, Decision making

JEL: C70, C78, C73.



1. Introduction

The rational behavior of the humans has been extensively studied using the ultimatum games. These games are strategic format to study/ solve the distribution problems and are grouped as bargaining ultimatum games. A classical ultimatum game as per the art mentioned by Güth et al. (1982) [1] explains the distribution of the pie between herself and another person designated as responder. As per the study the responder was to accept/reject the proposal. In case of the responder accepting her proposal the pie is divided among the both participant according to the proposal or else both the participants receive nothing (for further details, see Güth et al. (1982) [1]).

The various factors which can be deciding elements for these types of the ultimatum game are explained in the art by Mousazadeh et al. (2015). This literature review points to the factors such as the impact of the aging, impact of culture and fairness as the factors impacting the performance of the ultimatum games (for details, see Mousazadeh et al., (2015) [2]). The impact of age in the ultimatum games has been studied in the literatures (for details, see Bailey et al. (2013) & Roalf et al. (2012) [3, 4]). As per these studies the older people tend to be fairer/ generous in the distribution of the money when compared to their younger counterpart. The older participant tends to be more risk tolerant and favoured the equal distribution of the money. The possibilities of the older participants rejecting unfair economic deals were high clear indicating the impact of the age in the ultimatum games (for details, see Bailey et al. (2013) & Roalf et al. (2012) [3, 4]).

The impacts of the geographical distribution impacting the bargaining behavior and in turn the ultimatum game were studied in the art by Kohler (2013) (details, see Kohler (2013) [5]). The impact of the gender in the ultimatum games were studied in the art mentioned in the art by Kohler (2008) (for details, see Kohler (2008) [19]]. These studies points to the various influences in the ultimatum game which, in turn, is also determined by the size of the samples/ methodologies of performing the study.

The nucleus of this study is to understand the influence of the international experience



on the Bargaining Behaviour. Ultimatum game specifically in the form of dictator game has been used tool to study this rational behavior. This is significant because the study make an extensive study about the various factors that might influence the Bargaining Behavior including the most relevant factor such as international experience, age and gender.

The subject of Bargaining Behavior is a question from the classical game theory in which solutions for the possible conflicts can be determined. In this methodology the participants act purely rationally and in a self-interested manner for their profit maximizing (details, see Güth et al. (2003) [6]). Recent research on bargaining behavior shows that this above mentioned approach is controversial. Various studies have pointed to the fact that factors such as gender, income, academic education and cultural background play an important role in Bargaining Behavior (for details, see Piazolo (2015) [7]).

The study by Piazolo (2015) suggests that among other factors the cultural background in particular could have an influence on the Bargaining Behavior: "On the cultural background, there are statistically significant differences in behavior of South Africans and Europeans . . . we expected the South Africans to be more equality oriented. They are: 67 % of them propose an Equal Split, while they reject in their role as Berta non-equal distributions of inheritance far more often than Europeans" (details, see Piazolo (2015), [7]). The study made by Mousazadeh and Izadkhah (2015) also indicates the impact of the culture (details, see Mousazadeh and Izadkhah (2015), [2]). Furthermore Li, Qin and Houser (2017) explained the below details in their respective studies.

"Cultural differences may have played a role in our data, which have been previously observed in ultimatum games (Oosterbeek et al., 2004; Chen and Tang, 2009). A potential explanation for this is differences in the survival/self-expression values of the US and China, one of the key cross-cultural variations noted by Inglehart (2000). Industrial societies like China emphasize economic and physical security as well as materialist values, but offer relatively little support for gender equality. On the other hand service or knowledge societies like the US value self-expression, subjective well-being and quality of life. As a result, compared with US subjects, Chinese proposers offer less and responders demand less (getting something small is better



In the article mentioned in the literature by Blau & Kahn (2016), the gender difference/experience in the bargaining behavior leading to a wage gaps in the current labor market has been explained. In this study extensive literature review of the difference in wage gap through the study by conventional and new empirical estimates were made mainly focusing on the United Stated market. The following details are explained below from the respective studies (for details, see Blau and Kahn (2016) [9]).

"..our overview of the US gender wage gap shows a substantially decreased but persistent wage gap between men and women. Decompositions indicate the importance of changes in gender differences in education and experience, as well as occupation and union status in accounting for the reduction in the gender pay gap. They also highlight the diminished role of human capital factors in accounting for the gender wage gap over time—due both to the reversal of the education gap between men and women and the narrowing of the gender gap in experience. Gender differences in occupation and industry remain important in explaining the gender wage gap, despite occupational upgrading of women relative to men. However, the role of unions in accounting for gender differences in wages has virtually disappeared as have gender differences in unionization "(for details, see Blau and Kahn (2016) [9]).

Furthermore the study by Buchan, Croson, & Johnson describes the impact of the Fair beliefs as an influencing factor for the bargaining behavior taking into the consideration of the Japan and United states markets. The study points to the fact that respondents from Japan believes that its fair with greater power earning more when compared to the smaller portion by the weaker partner. This indicates to the point that the different cultural and international experience of the respondents makes a huge impact as an influencing factor in the bargaining behaviour (details, see Buchan et al. (2004) [10]).

In contrast to the above mentioned studies, there is no indication in various studies for the potential importance of the cultural background in bargaining behavior (for details, see Güth et al. (2003), Stoetzer et al. (2015) and Dittrich et al. (2014) [6, 11 & 12]). In this respect, it seems expedient to review this aspect in the context of an experiment. The basis for this is the experiment is based on the art mentioned in the study by Güth, Schmidt and Sutter (2003) (for details, see Güth et al. (2003) [6]). Through the course



of the experiment as per the art mentioned above made use of example of three brothers to whom 1,200 monetary unit were to be distributed, with the first brother making a suggestion and the second brother agreeing to this proposal or this refusing the same. In the last case all the three brothers lose money, with the third brother having no influence in the entire decision-making process for the distribution of the monetary benefits. Guth et al. (2003) [6] further argues that the three brothers do not have a true decision dilemma in making a decision based on "homo economicus".

".Brother Y (second brother) always has a choice to accept between the distributions offered by Brother X(first brother), where he gets a positive amount of money or to reject the offer where by all three brothers go out empty handed. Reasonably enough the Brother Y must therefore accept the suggestion of Brother X. Because of this reason Brother X knows that he can propose the most profitable distribution for him. The present case would be that, he receives 1,000 monetary units and the other two receive 100 monetary units each" (for details, see Güth et al. (2003) [6])

The above quoted text is translated English version of the German text from the study by Güth Schmidt & Sutter (2003) (for details, see Güth et al. (2003) [6]) and term DM refers to monetary unit which has to be distributed among brothers.

The peculiarity of this study is the question of whether "real people" act purely on the basis of personal profit or whether aspects such as fairness, justice and other aspects including international experience & cultural background have a relevant influence on the decision making or their intention (details, see Güth et al. (2003), Güth et al. (2007), Sommer and Haug (2012), Sommer (2013), Sommer(2013), Sommer et al. (2010) [6, 13, 14, 15, 16, 17, 18]).

The question of this cultural influence in general and the influence on the bargaining behavior in particular will be the subject of this investigation through the dictator game model from ultimatum game methodology. With the above mentioned objectives following hypotheses can be formulated:





a. For the analysis of the influence of the international experience in the present study (2015) following hypothesis H1 was formulated:

H1: If the bargaining behavior experiential analysis as mentioned in the art by Güth et al. (2003) (details, see Güth et al., (2003), [6]) is repeated in the current scenario to find out the significance of the international experience on bargaining through the German respondents then the results points to fact of lower self-interest & higher fairness.

b. To analysis the impact and level of international experience in the Present Study (2015), following hypothesis H2 was formulated:

H2: If the bargaining behavior experiential analysis as mentioned in the art by Güth et al. (2003) (details, see Güth et al., (2003), [6]) is repeated in the current scenario, then the higher proportion of the international experience of the surveyed German respondents leads to a higher significant influence on the bargaining behavior in the form of lower self-interest & higher fairness.

2. Method

2.1. Experimental Design

The investigation was carried out on the basis of the experimental description in the art by Güth et al. (2003) [6]:

".An amount of 1,200 monetary units is to be divided among three brothers (X, Y and Z). Three brothers have received this amount from a rich aunt of them. The aunt has determined the following rule for distributing monetary unit: brother X should make a proposal for the distribution of the money and brother Y must decide whether to accept/reject this proposal. If he agrees (brother Y), then three of each brother will receive their share according to the proposal from brother X. If brother Y declines this proposal, then the aunt keeps her money



back. The third brother Z has no authority /right in the decision making in the distribution of the money. The participants should first empathize with Brother X and choose one out of eighteen possible distributions possibilities. Then it's the role of the brother Y to decide whether to accept or reject the eighteen possible distribution combinations" (for details, see Güth et al. (2003) [6]).

The above quoted text is translated English version of the German text from the study by Güth Schmidt & Sutter (2003) (for details, see Güth et al. (2003) [6]) and term DM refers to monetary unit which has to be distributed among brothers.

"... In accordance with Güth et al. (2003), the current study was carried out as follows with slight modifications: students from the first to third semester from the industrial engineering degree program were interviewed in the year 2014 – 2015; (b) monetary amount of 120 Euro were distributed; (c) Designation of the student as brother A, B and C were made; (d) the interviewees were assembled in a lecture hall and asked to complete the questionnaires for the study; (e) the allocated time for the completion of the questionnaires was 20 minutes; (f) The study was carried in the form of writing using a questionnaire consisting of six pages" (for details, see Sommer (2018) [20]):

- The first page was voluntary and was used to ask for age, gender, nationality and experience abroad
- The second page explained the rules of the game in textual and graphic form based on the above description as the art mentioned according to study by Güth et al. (2003) [6].
- The third page presented the possible 18 decision options. Respondents could choose one of the following options taking the role of Brother A here:
- The fourth page asked how respondents (students) would decide on Brother B's situation. Each of the 18 options analogous to the decision matrix on page tree of the questionnaire had to be marked with "accept or not accept".
- The fifth page of the questionnaire was related to the 'predictions of Brother



A's decision - analogous to the decision matrix on the questionnaire tree saying what they believe, what most people would choose were depicted. Only one option was allowed to be ticked.

 The sixth page of the questionnaire the subject's to the prediction of Brother B's decision - analogous to the decision matrix on page tree of the questionnaire. Here again all options had to be processed in the sense of "accepted or not accepted".

All the above mentioned experimental procedure is in accordance to the art mentioned in the literature (details, see Sommer (2018), [20]). The same experimental procedure mentioned in this art has been adopted to find the influence of international experience in the bargaining behavior.

[Table 1 here]

2.2. Data Description

There were 308 people interviewed. These were students of Albstadt-Sigmaringen University / Germany. From the 305 respondents (students), 270 questionnaires filled out as per the study were included in the evaluation. The following insights were provided by the descriptive analysis of personal data:

[Table 2 here]

The results show that the survey was attended by students with a mean age of 22.3 years, predominantly male (57 women and 213 men) predominantly German citizens with an average international experience of 3.2 months.

3. Results

3.1. Database



[Table 3 here]

Results of the experimental analysis showed that the most popular option both in the role as Brother A and Brother B, voted (selected) by the respondent was the fairest option 7. This result was in line with the art mentioned in the most of the studies [2, 7, 8 & 18]. Furthermore it is noticeable that decision and prediction correlate strongly with brother A and brother B. Correlation coefficient according to Bravais-Pearson reaches r = 0.997 *** for the correlation between "Decision and Prediction - Brother A" and r = 0.996 *** for the correlation between "Decision and Prediction Brother B", which depicted as the following figure illustrates:

[Figure 1 here]

The correlation between "Decision Brother A and B" with r = 0.556 * is only of medium strength and the same applies to "Prediction Brother A and B" with r = 0.520 *.

3.2. Impact of international experience on the bargaining behaviour

As the next step of the experimental analysis, the international experience will be considered as an influencing factor. Respondents were divided into the groups with and without international experience. From the n=270 respondents, n=60 respondents indicated that they had international experience greater than 1 month and the remaining n=210 respondents stated that they had no experience or experience less than 1 month.

[Table 4 here]

The statistics for participants with international experience showed no relevant deviations from those with all participants. Statics of the participants with international experience showed any relevant deviation when compared with the participant without international experience. Subsequently above mentioned subjects (key factors) were considered to determine whether the corresponding experience abroad had a significant effect on the bargaining behavior for the respondents. The results from the experimental analysis can be depicted as follows:



[Table 5 here]

The results indicate the selection fair option 7 were highest among the respondents with international experience. But the values were significantly higher when compared to that of the overall study with n=270 respondents in the range between 3 and 6 %. The correlation coefficients for the current study was r=0.990 *** for "Decision and Prediction - Brother A" and r=0.974 *** for "Decision and Prediction - Brother B". The value for "Decision Brother A and B" reaches r=0.648 ** and "Prediction Brother A and B" was r=0.559 *, both of which speak for a medium correlation.

The following figure illustrates the possible deviation of the static values. It stands out in particular that "Decision and Prediction - Brother B" especially shows a deviating behavior in relation with international experience shows:

[Figure 2 here]

From the experimental analysis its noticeable that the "Prediction of Brother B" for the selection of options 2, 5, 6, 10, 11, 12,15,16, 17 & 18 by Brother B(indicated by the dashed lines and arrows in the Figure 2) by respondents with international experience was significantly lower when compared to that of selection of option corresponding to "Decision as Brother B".

In other words, respondents with international experience are willing to accept the financially bad options as Brother B, but in the prediction they assume that the majority will not accept these financially bad options and hence this group of people tends to have a fairer behavior. It is now important to determine whether the above behavior (with the respondents with international experience) can be found among the respondents without an international experience. The following table gives an insight into the numbers:

[Tables 6 and 7 here]



The statistical key figures for participants without international experience shows no relevant deviations from those with all participants. The results for fair option 7, on the other hand showed significantly lower values of in the range of 3 and 8 % to that with respondents with international experience. The correlation coefficients is r=0.997*** for "Decision and Prediction - Brother A" and r=0.996*** for "Decision and Prediction - Brother B". The latter value deviates significantly from that of the respondents with international experience. The correlation co-efficient value for "Decision Brother A and B" reaches r=0.532* and the value for "Prediction Brother A and B" is r=0.510*. Both of the correlation co-efficient values speak for a medium correlation.

The following figure (Figure 3) illustrates the missing deviations of the statistical values. It becomes graphically clear that in "Decision and Prediction - Brother B" in contrast to the graphical representation of respondents with international respondents showed no relevant deviant behavior when compared to the subjects without an international experience.

[Figure 3 here]

Finally, a comparative analysis of the decision and predictions of Brother A and B are divided into:

- All participants (n = 270)
- Participants with International Experience (n = 60)
- Participants without International Experience (n = 210)

The results show that there are significant differences in the bargaining behavior in the "Decision as Brother B" (indicated by the dashed lines in the Figure 4). The graphical interpretation of the experimental results indicates that respondents with international experience are more willing to accept bad option such as 2, 5, 6, 10, 11, 12,15,16,17, & 18 with higher approval ratings (indicated by the arrows in the Figure 4). Respondents with little / no international experience shows exactly opposite behavior can also be determined using this graphical representation. The behavior of subjects with



international experience for "Prediction Brother B" becomes more visible in the graphical representation (Figure 4), but in a lesser extent. With respect to Brother A, aberrant behavior generally cannot be detected.

[Figures 4a - 4c here]

3.3. Impact of international experience – Relevance of the number of month

Due to the limited database of n = 60 subjects (respondents), a meaningful statistical evaluation in the sense of Hypothesis H2 investigating the influence of the scope of the international experience could not be made.

4. Discussion

4.1. Hypothesis Testing

Based on the experimental results, it can stated for Hypothesis H1 that international experience indeed of the surveyed German subjects (respondents) had a significant influence on the bargaining behavior. The "Decision as Brother B" can be taken as reference to substantiate the above statement. Furthermore, it was found that the "Prediction Brother B" was also slightly influenced by the international experience of the respondents. For Brother A for both "Decision and Prediction" no significant impact of the international experience of the respondents could be identified. Thus, Hypothesis H1 with respect to Brother B can confirmed and the fact that subjects with international experience showed less self-esteem or higher fairness can also confirmed.

This fact can be confirmed with these respondents showing a higher willingness to accept worse options 2, 5, 6, 10, 11, 12, 15, 16, 17 & 18. Furthermore it is also striking to observe the respondent's behavior in the role of Brother A not being different for the majority of the respondents. This applies to the "Decision as Brother A" as well as the "Prediction Brother A". An interpretation of this issue could be that the respondents in the position as Brother B can better express their fairness or justice, since this is already



a decision from Brother A and it is easier for the respondent in the role of Brother B to recognize whether the decision is fair or rather unfair.

Thus, the fact that the "Decision or Prediction" of Brother B could play the crucial role in the assessment of fairness and justice can be determined. Hypothesis H2 could not be confirmed or discarded because of the fact that the database was too small and therefore a statistical analysis was not meaningful.

4.2. Implications and Limitations

The following implications can be derived for the study:

- (a) The study by Güth et al. (2003) (for details, see Güth et al. (2003) [6]) remains valid as the results of the present study confirm this;
- (b) The influence of international experience has been confirmed, but only with reference to Brother B:
- (c) International experience means that subjects already have bad options to choose from the totality of respondents and make this clear even in their own prediction. In other words, the "Decision as Brother B" gives higher readiness values to assume worse options in the function than Brother B than the expected "Prediction Brother B";
- (d) The fairer behavior of persons with international experience as Brother B can be confirmed through the comparison of facts for "Decision as Brother B" between the people with international experience to the all other participants including the respondents without international experience. The respondents with international experience were fairer in their decisions;
- (e) A comparison between Germans and foreign national respondents was not carried out. It would be interesting to consider whether foreign national respondents behave similarly with international experience, i.e. international experience generally leading to fair/fairer conduct regardless of nationality;
- (f) it makes sense to conduct another study to visualize the scope of the international experience leading to a change in behavior in terms of fairness and equity.

5. Conclusion



The main subject of the current study revolves around the validation of a 15- year old study in regards to the Bargaining Behavior in the current situation (for details, see Güth et al. (2003) [6]). The subject of the investigation was the question of whether the international experience of subjects (respondents) has a beneficial effect in bargaining behavior in the sense of greater fairness and justice through a dictator game from ultimatum game methodology. This was largely confirmed on the basis of the present study. However, further investigations should clarify whether the scope of the collected international experience has a relevant impact on the outcome and can be imparted as future studies.



References

- [1] Güth, W., Schmittberger, R., and Schwarze, B.,(1982) .An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization*, vol. 3, pp. 367-388.
- [2] Mousazadeh, M. and Izadkhah, M. (2015). The ultimatum game: A comprehensive literature review. *Applied mathematics in Engineering. Management and Technology*, Vol. 3, No. 1, pp.158-165.
- [3] Bailey, P. E., Ruffman, T., and Rendell, P. G., (2013). Age-Related Differences in Social Economic Decision Making: The Ultimatum Game. The Journals of Gerontology Series B: *Psychological Sciences and Social Sciences*, vol. 68, pp. 356-363, 2013.
- [4] Roalf, D. R., Mitchell, S. H., Harbaugh, W. T., and Janowsky, J. S., (2012). Risk, reward, and economic decision making in aging. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, vol. 67, pp. 289-298, 2012.
- [5] Kohler S. (2013). More fair play in an ultimatum game after resettlement in Zimbabwe: a field experiment and a structural model. PloS one, 8(5), e64791. doi:10.1371/journal.pone.0064791.
- [6] Güth, W., Schmidt, C. and Sutter, M. (2003) .A contest in the German weekly "Die Zeit" as a scientific experiment on bargaining behavior. *Max-Planck-Gesellschaft Jahrbuch* 2003/2004, *Deutschland*, Max-Planck-Gesellschaft, 1-4.
- [7] Piazolo, M. (2015). Fairness Dominating Human Behavior in International Ultimatum Bargaining Game. Proceedings of the Management, Enterprise and Benchmarking in the 21st Century, Budapest, Hungary, pp.171-182.
- [8] Li, S., Qin, X. and Houser, D. (2017). Revisiting Gender Differences in Ultimatum Bargaining: Experimental Evidence from the US and China. GMU Working Paper in Economics. *SSRN Electronic Journal*, pp.17-34.



- [9] Blau, F and Kahn, L. (2016). The Gender Wage Gap: Extent, Trends, and Explanations. *The Institute for the Study of Labor (IZA)*, IZA DP No. 9656.
- [10] Buchan, N. R., Croson, R. T. and Johnson, E. J. (2004) .When Do Fair Beliefs Influence Bargaining Behavior? Experimental Bargaining in Japan and the United States. *Journal of Consumer Research*, Vol. 31, No. 1, pp. 181-190.
- [11] Stoetzer, M., Blass, T., Grimm, A., Gwosdz, R. and Schwarz, J. (2015). Was ist fair? Echte und strategische Fairness in einem sequentiellen Ultimatum- und Diktatorspiel. Jenaer Beiträge zur Wirtschaftsforschung Heft 1/2015, Fachbereich Betriebswirtschaft, Ernst-Abbe-Hochschule Jena.
- [12] Dittrich, M., Knabe, A. and Leipold, K. (2014). Gender differences in experimental wage negotiations. *Economics Inquriy*, Vol. 52, No.2, pp. 862-873.
- [13] Sommer, L. and Haug, M. (2012). What Influences Implementation Intentions in an Academic Learning Context The roles of Goal Intentions, Procrastination, and Experience. *International Journal of Higher Education*, Vol. 1, No.1, pp. 32-61.
- [14] Sommer, L. (2013). The Influence of Experience and Cognitive Style on International Entrepreneurial Intentions: The Contribution of Academic Education in this Relation. *Electronic Journal of Research in Education Psychology*, Vol.11, No.2, pp.311-344.
- [15] Sommer, L. (2013). Exam Preparation: The Influence of Action Control, Procrastination and Examination Experience on Students' Goal Intention and Implementation Intention. *Electronic Journal of Research in Education Psychology*, Vol. 11, No. 3, pp. 603-630.
- [16] Sommer, L. (2013). Relevance of international experience in a globalized world, Nomos Baden-Baden.
- [17] Sommer, L., Kaufmann, H. R., Haug, M. and Durst, S. (2010). The impact of decision-makers identity on SME internationalisation: Do origins matter. *International*



Journal of Business and Globalisation, Vol. 5, No.1, pp.90-113.

[18] Güth, W., Schmidt, C. and Sutter, M. (2007). Bargaining outside the lab? a newspaper experiment of a three-person ultimatum game. *The Economic Journal*, Vol. 117, No.518, pp. 449-469.

[19] Kohler, S., (2008). Inequality Aversion and Stochastic Decision-making: Experimental Evidence from Zimbabwean Villages after Land Reform.

[20] Sommer, L., (2018).Comprehensive Study About the Influence of the Gender Phenomenon on Bargaining Behavior. Working paper, Department of Business Administration and Engineering, Albstadt-Sigmaringen University, Germany, 27 July.



Table 1

Decision Matrix – Bargaining Behavior

| Brother B | Brother C | Decision |
|-----------|---|---|
| 600 | 600 | |
| 400 | 600 | |
| 500 | 500 | |
| 600 | 400 | |
| 200 | 600 | |
| 300 | 500 | |
| 400 | 400 | |
| 500 | 300 | |
| 600 | 200 | |
| 100 | 500 | |
| 200 | 400 | |
| 300 | 300 | |
| 400 | 200 | |
| 500 | 100 | |
| 100 | 300 | |
| 200 | 200 | |
| 300 | 100 | |
| 100 | 100 | |
| | 600 400 500 600 200 300 400 500 600 100 200 300 400 500 100 200 300 | 600 600 400 600 500 500 600 400 200 600 300 500 400 400 500 300 600 200 100 500 200 400 300 300 400 200 500 100 100 300 200 200 300 100 |

Note: Decision Matrix according to Güth et al. (2003) [6].



Table 2

Descriptive Statistics

Age, Gender, Nationality and International Experience

| Variable | Total C | ount | N | N* | Mean |
|----------------------|----------|---------|----------|--------|----------|
| Age | 270 | | 270 | 0 | 22.31 |
| Gender | 270 |) | 270 | 0 | 17.889 |
| Nationality | 270 |) | 270 | 0 | 1.074 |
| Inter. Experience | 270 | | 270 | 0 | 3.159 |
| Variable | SE Mean | SD | Variance | Min. | Median |
| Age | 0.151 | 2.489 | 6.193 | 18.00 | 22.00 |
| Gender | 0.0249 | 0.4089 | 0.1672 | 1.000 | 2.000 |
| Nationality | 0.0156 | 0.2562 | 0.0657 | 1.000 | 1.000 |
| Inter. Experience | 0.416 | 6.892 | 46.633 | 0.0000 | 0.000 |
| Variable | ; | Maximum | Skev | vness | Kurtosis |
| Age | | 35.000 | 1. | 02 | 2.04 |
| Gender | | 2.0000 | -1 | .42 | 0.03 |
| Nationalit | у | 2.0000 | 3. | 38 | 9.48 |

Note: Age in years; Gender in female (1) and male (2); Nationality in German (1) and Foreigner (2); International Experience in month, e.g. 3 month (4) M = mean, SD = standard deviation.

4.21

25.27

60.000



Statistics

Inter. Experience

Table 3

Bargaining behavior – All participants

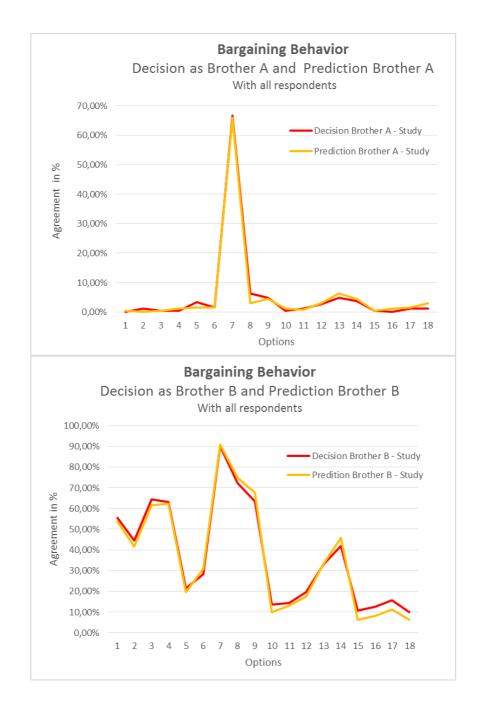
| | Rules of | the game | | | | | |
|---------|----------------|--------------|-----------|-----------|-----------|------------|------------|
| Po | ssible distrib | oution of mo | ney | Decision | Decision | Prediction | Prediction |
| Options | Brother A | Brother B | Brother C | Brother A | Brother B | Brother A | Brother B |
| Opt-1 | 0 | 600 | 600 | 0,00% | 55,56% | 0,37% | 53,70% |
| Opt-2 | 200 | 400 | 600 | 1,11% | 44,44% | 0,00% | 41,48% |
| Opt-3 | 200 | 500 | 500 | 0,37% | 64,44% | 0,37% | 61,48% |
| Opt-4 | 200 | 600 | 400 | 0,37% | 62,96% | 1,11% | 62,22% |
| Opt-5 | 400 | 200 | 600 | 3,33% | 21,48% | 1,48% | 19,63% |
| Opt-6 | 400 | 300 | 500 | 1,48% | 28,15% | 1,48% | 30,74% |
| Opt-7 | 400 | 400 | 400 | 66,67% | 90,00% | 65,93% | 90,74% |
| Opt-8 | 400 | 500 | 300 | 6,30% | 72,22% | 2,96% | 74,81% |
| Opt-9 | 400 | 600 | 200 | 4,81% | 63,33% | 4,44% | 67,41% |
| Opt-10 | 600 | 100 | 500 | 0,37% | 13,70% | 1,11% | 10,00% |
| Opt-11 | 600 | 200 | 400 | 1,11% | 14,44% | 0,74% | 12,96% |
| Opt-12 | 600 | 300 | 300 | 2,59% | 19,63% | 2,96% | 17,41% |
| Opt-13 | 600 | 400 | 200 | 4,81% | 32,96% | 6,30% | 33,33% |
| Opt-14 | 600 | 500 | 100 | 3,70% | 41,85% | 4,44% | 45,93% |
| Opt-15 | 800 | 100 | 300 | 0,37% | 10,74% | 0,37% | 6,30% |
| Opt-16 | 800 | 200 | 200 | 0,00% | 12,59% | 1,11% | 8,15% |
| Opt-17 | 800 | 300 | 100 | 1,11% | 15,56% | 1,48% | 11,11% |
| Opt-18 | 1000 | 100 | 100 | 1,11% | 10,00% | 2,96% | 6,30% |
| | TO | ΓAL | | 100,00% | | 100,00% | |

Note: Results of own study with n = 270 participants.



Figure 1

Bargaining Behavior – Brother A / Brother B



Note: Results of own study with n = 270 participants.



Table 4

Descriptive Statistics – Participants with International experience

| Statistics | | | | | |
|----------------------|--------------------|-------|-------|---------|------------|
| Variable | Total Count | N | N* | M | SE Mean |
| Age | 60 | 60 | 0 | 23.683 | 0.324 |
| Gender | 60 | 60 | 0 | 1.7667 | 0.0551 |
| Nationality | 60 | 60 | 0 | 1.100 | 0.0391 |
| Inter. Experience | 60 | 60 | 0 | 12.45 | 1.26 |
| Variable | SD | Min. | Q1 | Median | Q3 |
| Age | 2.508 | 20.00 | 21.00 | 24.000 | 26.000 |
| Gender | 0.4265 | 1.00 | 2.000 | 2.000 | 2.000 |
| Nationality | 0.325 | 1.00 | 1.000 | 1.000 | 1.000 |
| Inter. Experience | 9.75 | 1.00 | 6.00 | 9.50 | 13.00 |
| Variable | Maximum Skewness 1 | | K | urtosis | |
| Age | 30.00 | | 0.13 | -0.79 | |
| Gender | 2.000 | | -1.29 | | -0.34 |
| Nationality | 2.000 | | 2.74 | | 5.67 |
| Inter. Experience | 60.00 | | 3.00 | | 11.18 |

Note: Age in years; Gender in female = 1 and male =2; Nationality in German = 1 and Foreigner = 2; International Experience in month, e.g. 3 month and M = mean, SD = standard deviation.

Table 5

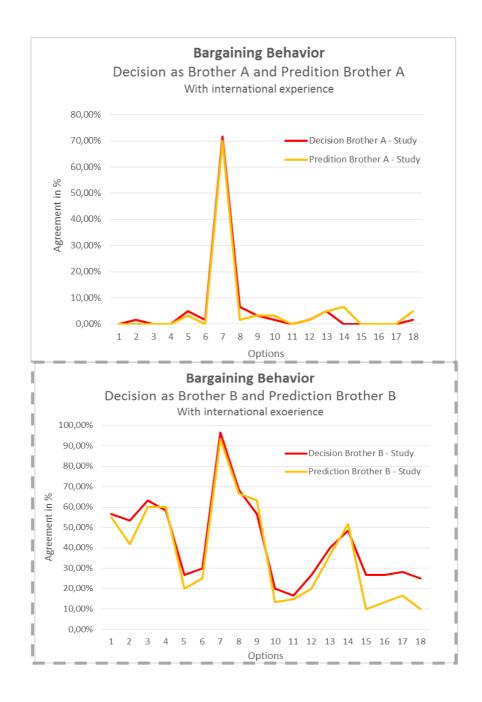
Bargaining behavior – Participants with International Experience

| | Rules of | the game | | | | | |
|---------|----------------|--------------|-----------|-----------|-----------|------------|------------|
| Po | ssible distrib | oution of mo | ney | Decision | Decision | Prediction | Prediction |
| Options | Brother A | Brother B | Brother C | Brother A | Brother B | Brother A | Brother B |
| Opt-1 | 0 | 600 | 600 | 0,00% | 56,67% | 0,00% | 55,00% |
| Opt-2 | 200 | 400 | 600 | 1,67% | 53,33% | 0,00% | 41,67% |
| Opt-3 | 200 | 500 | 500 | 0,00% | 63,33% | 0,00% | 60,00% |
| Opt-4 | 200 | 600 | 400 | 0,00% | 58,33% | 0,00% | 60,00% |
| Opt-5 | 400 | 200 | 600 | 5,00% | 26,67% | 3,33% | 20,00% |
| Opt-6 | 400 | 300 | 500 | 1,67% | 30,00% | 0,00% | 25,00% |
| Opt-7 | 400 | 400 | 400 | 71,67% | 96,67% | 70,00% | 93,33% |
| Opt-8 | 400 | 500 | 300 | 6,67% | 68,33% | 1,67% | 66,67% |
| Opt-9 | 400 | 600 | 200 | 3,33% | 56,67% | 3,33% | 63,33% |
| Opt-10 | 600 | 100 | 500 | 1,67% | 20,00% | 3,33% | 13,33% |
| Opt-11 | 600 | 200 | 400 | 0,00% | 16,67% | 0,00% | 15,00% |
| Opt-12 | 600 | 300 | 300 | 1,67% | 26,67% | 1,67% | 20,00% |
| Opt-13 | 600 | 400 | 200 | 5,00% | 40,00% | 5,00% | 36,67% |
| Opt-14 | 600 | 500 | 100 | 0,00% | 48,33% | 6,67% | 51,67% |
| Opt-15 | 800 | 100 | 300 | 0,00% | 26,67% | 0,00% | 10,00% |
| Opt-16 | 800 | 200 | 200 | 0,00% | 26,67% | 0,00% | 13,33% |
| Opt-17 | 800 | 300 | 100 | 0,00% | 28,33% | 0,00% | 16,67% |
| Opt-18 | 1000 | 100 | 100 | 1,67% | 25,00% | 5,00% | 10,00% |
| | TO | TAL | | 100,00% | | 100,00% | |

Note: Results of own study with n = 60 participants.



Figure 2
Bargaining behavior – Brother A / Brother B



Note: Results of own study with n = 270 participants.



Table 5

Descriptive Statistics

Participants without international experience

| Statistics | | | | | |
|----------------------|----------------|-------|-------|---------|---------|
| Variable | Total Count | N | N* | M | SE Mean |
| Age | 210 | 210 | 0 | 21.919 | 0.162 |
| Gender | 210 | 210 | 0 | 1.7952 | 0.0279 |
| Nationality | 210 | 210 | 0 | 1.0619 | 0.0167 |
| Inter. Experience | 210 | 210 | 0 | 0.5048 | 0.0788 |
| Variable | SD | Min. | Q1 | Median. | Q3 |
| Age | 2.345 | 18.00 | 20.00 | 22.00 | 23.00 |
| Gender | 0.405 | 1.00 | 2.00 | 2.00 | 2.00 |
| Nationality | 0.2416 | 1.00 | 1.00 | 1.00 | 1.00 |
| Inter. Experience | 1.418 | 0.00 | 0.00 | 0.00 | 0.00 |

| Variable | Maximum | Skewness | Kurtosis |
|----------------------|---------|----------|----------|
| Age | 35.00 | 1.42 | 4.44 |
| Gender | 2.00 | -1.47 | 0.17 |
| Nationality | 2.00 | 3.66 | 11.52 |
| Inter. Experience | 5.00 | 2.42 | 5.22 |

Note: Age in years; Gender in female = 1 and male =2; Nationality in German = 1 and Foreigner = 2; International Experience in month, e.g. 3 month.



Table 7
Bargaining behavior

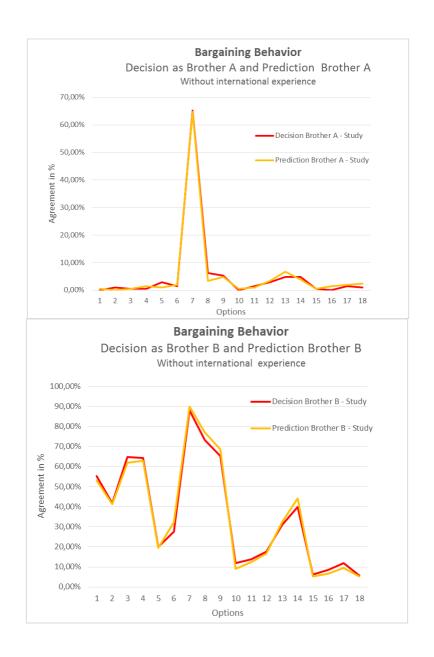
Participants without international experience

| | Rules of | the game | | | | | |
|--------------------------------|-----------|-----------|-----------|-----------|------------|------------|-----------|
| Possible distribution of money | | | Decision | Decision | Prediction | Prediction | |
| Options | Brother A | Brother B | Brother C | Brother A | Brother B | Brother A | Brother B |
| Opt-1 | 0 | 600 | 600 | 0,00% | 55,24% | 0,48% | 53,33% |
| Opt-2 | 200 | 400 | 600 | 0,95% | 41,90% | 0,00% | 41,43% |
| Opt-3 | 200 | 500 | 500 | 0,48% | 64,76% | 0,48% | 61,90% |
| Opt-4 | 200 | 600 | 400 | 0,48% | 64,29% | 1,43% | 62,86% |
| Opt-5 | 400 | 200 | 600 | 2,86% | 20,00% | 0,95% | 19,52% |
| Opt-6 | 400 | 300 | 500 | 1,43% | 27,62% | 1,90% | 32,38% |
| Opt-7 | 400 | 400 | 400 | 65,24% | 88,10% | 64,76% | 90,00% |
| Opt-8 | 400 | 500 | 300 | 6,19% | 73,33% | 3,33% | 77,14% |
| Opt-9 | 400 | 600 | 200 | 5,24% | 65,24% | 4,76% | 68,57% |
| Opt-10 | 600 | 100 | 500 | 0,00% | 11,90% | 0,48% | 9,05% |
| Opt-11 | 600 | 200 | 400 | 1,43% | 13,81% | 0,95% | 12,38% |
| Opt-12 | 600 | 300 | | 2,86% | 17,62% | 3,33% | 16,67% |
| Opt-13 | 600 | 400 | 200 | 4,76% | 30,95% | 6,67% | 32,38% |
| Opt-14 | 600 | 500 | 100 | 4,76% | 40,00% | 3,81% | 44,29% |
| Opt-15 | 800 | 100 | 300 | 0,48% | 6,19% | 0,48% | 5,24% |
| Opt-16 | 800 | 200 | 200 | 0,00% | 8,57% | 1,43% | 6,67% |
| Opt-17 | 800 | 300 | 100 | 1,43% | 11,90% | 1,90% | 9,52% |
| Opt-18 | 1000 | 100 | 100 | 0,95% | 5,71% | 2,38% | 5,24% |
| | TO | ΓAL | | 100,00% | | 100,00% | |

Note: Results of own study with n=270 participants.



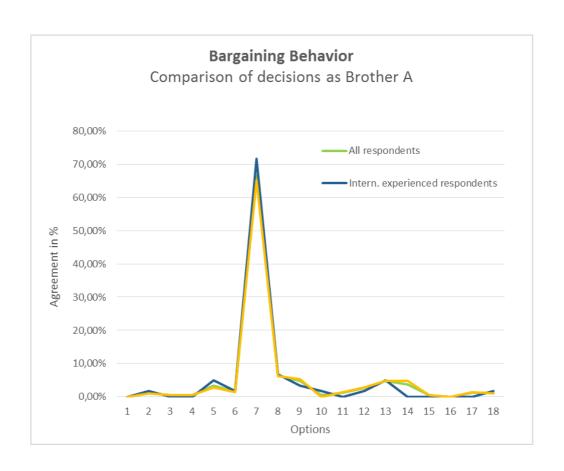
Figure 3
Bargaining behavior – Brother A / Brother B



Note: Results of own study with n = 210 participants.



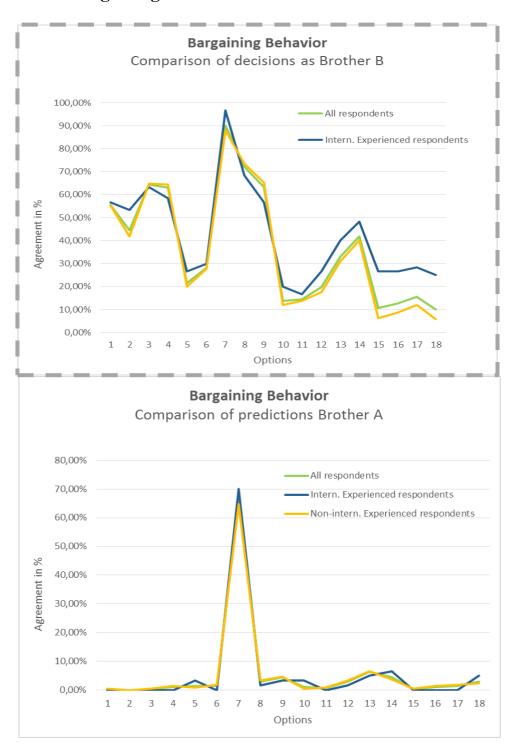
Figure 4a
Bargaining behavior – Brother A and B



Note: Results of own study with n=270 participants / n=60 with International Experience / n=210 without International Experience.



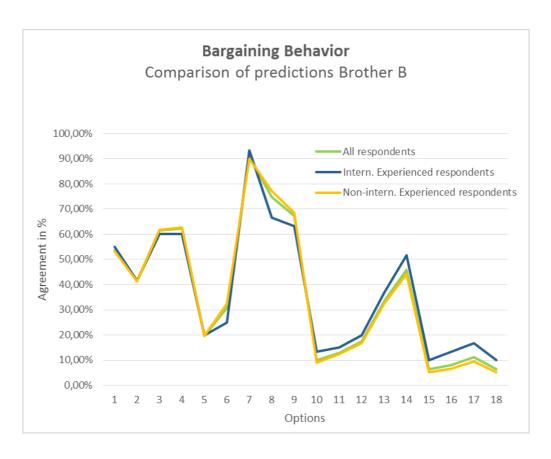
Figure 4b
Bargaining behavior – Brother A and B



Note: Results of own study with n = 270 participants / n = 60 with International Experience / n = 210 without International Experience.



Figure 4c
Bargaining behavior – Brother A and B



Note: Results of own study with n=270 participants / n=60 with International Experience / n=210 without International Experience.

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