How would You Decide on behalf of Your Friend?

Anita Kolnhofer-Derecskei

derecskei.anita@kgk.uni-obuda.hu

"However, there is much individual heterogeneity and
the interaction between altruists and
selfish individuals is vital to human cooperation."
(Fehr & Fischbacher, 2003)

Abstract: *Several prominent economists have underlined that actors are often concerned about the well-being (or feelings) of others. It seems 'homo oeconimicus' is selfish/rational and acts like a Good Samaritan at the same time. But being a Good Samaritan and deciding about somebody else's property is not a big deal. The aim of this study is to observe endowment heterogeneity in the case of a risky financial decision. Ownership and endowment effects were measured through using within-subjects design, i.e. two gambling situations were offered to subjects. Firstly, they should assess risks and allocate their own property. Secondly, they had to decide on behalf of one of their friends. This paper does not provide a theoretical summing up, but focuses on empirical findings. Using game experiment it was found that ownership plays a role in explaining the outcome of a risky financial situation.*

Keywords: *Endowment effect, Principal-Agent theory, altruism, Risk*

1   Introduction

Mainstream economic models do not take ownership deeply into consideration. After findings of Thaler (1980) *endowment effect* was observed widely. Endowment effect means that goods one owns are valued higher than other goods not held in endowment. This effect is mostly interpreted as the outcome of *loss aversion* (Kahneman & Tversky 1979). Actors value losses (negatively framed outcomes of a risky situation) higher than gains (outcome above the reference point) in the evaluation of options. Moreover, if somebody owns a product, the prospect of selling, it is equal to loss.

But our assessment of what is a loss and what is a gain influences our decision. Reb and Connolly provided a meaningful summing up about mechanism, which drives endowment effect. The authors (2007) pointed out the difference between *feelings of ownership (subjective)* and factual ownership (objective). They compared these in the frame of two experiments. "In other words, it may require the development of a subjective sense of endowment, rather than a legal entitlement, for the reference point to shift. Once the reference point is shifted, loss aversion sets in and leads to higher valuations. In our experiments, this shift seems to have been triggered by possession, not factual ownership." (p 112.) What about those who do not own an item but behave as an owner might? Like in the case of management. The *principal-agent* literature (Stiglitz 1989) is concerned with how the principal (like employer), can motivate his/her agent (namely the employee), to act in the principal's interests. The main problem is that acting in somebody's else interests can influence our values as well. According to Calabuig et al. (2016) the endowment effect disappears with *punishment*. However, authority and power can be one type of motivation. But, in this present paper, types and kinds of principals' motivational tools were not taken into account, only assumed emotional engagement between principal (real owner) and agent (real subject of my study) (i. e. friendship linked them together).

During the experiment this before aforementioned subjective ownership (responsibility) was shifted from the real subject to his or her friend. Both situations can be treated as *risky*.

Last but not least, *fairness* (fair decisions) of subjects could be observed. At the same time, fair minded actors also have to be treated on field of economics. Falk et al. (2008) suggested that fair-minded persons are likely to have important economic effects. These models based decisions on properties and handled the players' kindness.

Due to this, how foreign students with various cultural backgrounds make decisions in a financially risky situation was explored.

2 Research questions and hypothesis

H1. The subjects respond differently when they need to decide about their own properties rather than about their friends' properties. The answers (respondents) can be divided into the aforementioned groups.

These groups are the following:
- *Indifferentists:* are those who do not take risks for themselves or for their friend. They choose the same safe options two times, i. e. in both cases.
- *Good friends:* are those who play risky themselves but avoid risks answers on behalf of a good friend (protect their gains).
- *The braves:* are those who take risks in both situations (they are not influenced by who the owner is.)

– *Agents* avoid risk when they have to decide about their money but they take risk in the place of their friends.

The following table helps us to clarify each groups.

Owner	Self		Good friend	
Choices	Not Risky	Risky	Not Risky	Risky
Same safe choices	X		X	
Good friend		X	X	
Risk taker		X		X
Principal agent	X			X

Table 1.

Survey various (Own source)

Research question (RQ): Which demographical factors influence (are connected to) the above detailed phenomena?

The demographical backgrounds were measured through the following: Gender, Age, Home country, Actual study and Main Subject. From these factors, gender differences are mainly assumed.

3 Methodology

3.1 Materials and procedure

There were two different types of surveys: (1) electronically, original texts of the questionnaire could be reached on the Internet (please find the link below) (2) Paper-pencil form i.e. hard copy which ended in some over-representative subsamples.

- online form (n=56) which can be accessed here: https://docs.google.com/forms/d/1UnNYxdNupaCu2TEp0pf_ZAjvtllF18sXC_rRdaQRSPc/prefill and

- paper pencil form (43) was given to Hungarian and Belgian students. (Kolnhofer-Derecskei & Nagy , 2017)

Online	Group A	Group B	Total
Total number of subjects	34	34	68
Cancelled number	6	6	12
Accepted number of subjects	28	28	56
Paper/Pencil version	Belgian	Hungarian	Total
Total number of subjects	26	17	43
Cancelled number	0	0	0
Accepted number of subjects	26	17	43
Total sample number	99		

Table 2

Sample descriptions (Own source)

The questionnaire contained two different situation in two ways, online respondents received only two questions (one situation: Group A or Group B), namely this form was between subjects. Group A version was more risky, Group B contained also a sure option, due to this safe option it was not so risky.

In case of paper-pencil surveys it was a within subject situation because subjects received each questions (i.e. Group A & Group B). Both were faced with two decisions they should make themselves (as an owner) and in the place of one of their friends (as a non-owner). Original texts are in Appendix 1.

3.2   Sample

Due to the two types of survey two nationalities were over weighted: Hungarian and Belgian. Regarding gender, the sample was harmonized, which means 47 males and 52 females answered. Age distribution can be seen in Figure 1 and any other sample's descriptions are in Appendix 2. This extrapolation does not require representativeness.
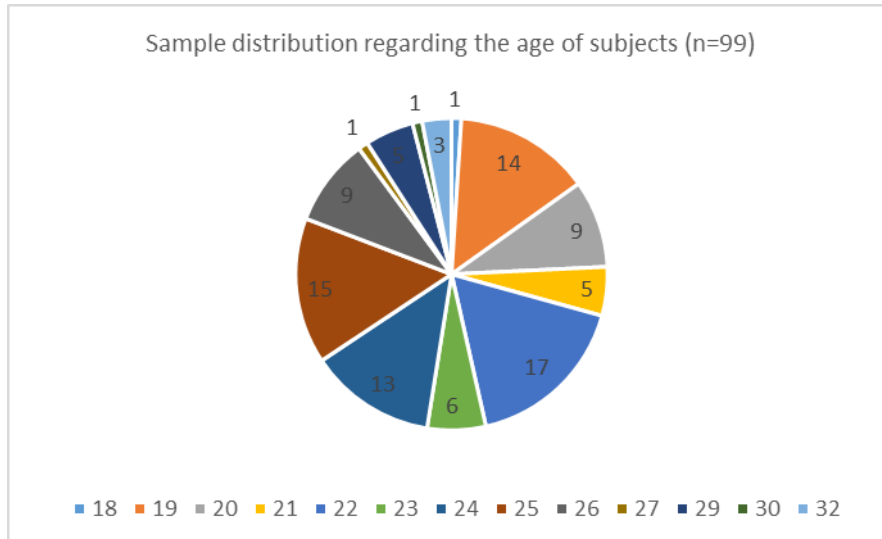
Figure 1.

Ages of respondents (Own source)

4 Results

Before observing the hypothesis and research question, the estimated respondents could be organized in Table 3.

Group	Group A				Group B			
Owner	Self		Good friend		Self		Good friend	
Choices	1	2	1	2	1	2	1	2
Same safe choices (indifferent)	X		X		X		X	
Good friend		X	X			X	X	
Risk taker		X		X		X		X
Principal agent problem - Agent	X			X	X			X

Table 3.

Various types of survey (Own source)

The hypothesis is the following: H1. The subjects responded differently when they needed to decide about their own properties rather when their friends' properties were concerned. The answers can be divided into the aforementioned groups see Table 4.

4.1 Frequency tables (H1)

	Total	Missing values	Risk taker	Good friend	Principal Agent	Same safe choices
Group A	71	2	2	9	6	18+34
Group B	71	0	8	12	10	26+15
Total	140		10	21	16	93

Table 4. Grouping of respondents (Own source)

As we realize, any roles (i.e. Risk taker, Good friends, Principal Agents and Indifferent) and Groups A and B (risky and non risky) differed from each other (Asymp. sig 0.00 p=0.05). So the H1 can be accepted.

Let's look closer at hat kind of factors influenced this result?

4.2 Relations (Research Question)

In this part two types of statistical analysis can be performed (1) Kruskal-Wallis tests (p=0.05) which compare the subsamples (2) Crosstables (p=0.05) with symmetric measures (special correlations with nominal by nominal cases). I just summarized my findings according to each demographical variable:

Although earlier gender differences were assumed, there were no gender differences either in Group A (p=0.929) nor in Group B (p=0.413), measured with Kruskal-Wallis non parametric test (sig. level 0.05).

Actual studies can be connected with roles only in Group B. (Cramer's V = 0,356 with p=0.000 assymp sig.) That means in a safe situation subjects with MsC level preferred risk more. At the same time, main subjects did not impact the final decisions.

But ethnicity was related to the different roles. That means there were significant differences in both cases (i.e. Group A and Group B) regarding nations. (Kruskal-Wallis with sig. level 0.05 p<0.005). However, these results can be caused by the non representative sample selection methods.

Conclusions

All previously observed behaviour in real life situations can almost always be attributed to different motives. In the last few decades, behavioural economists designed a huge number of game experiments testing self-interest hypotheses but

mainly focused on smaller subpopulations or samples. Most of the games dealt with financial or gambling problems like this paper. My findings assume that people decide in different ways about their own property than about others'. According to Tversky and Kahneman (1974) probabilities (i.e. outcomes) and certainty influence our decision in a gamble. In the final results I need to underline that in the second situation the safe wins were more attractive for the subjects than feeling of risk. Due to this, in Group B they focused more on the amount of safe won (i.e. USD) than the probability of win options (i.e. percentage). In case of Group A it was reversed.

Acknowledgement

References

[1]   Calabuig, V. & Fatas, E. & Olcina, G. & Rodriguez-Lara, I. 2016. Carry a big stick, or no stick at all Punishment and endowment heterogeneity in the trust game. *Journal of Economic Psychology* 57 (2016) pp. 153–171

[2]   Falk, A. & Fehr, E. & Fishbacher, U. 2008. Testing theories of fairness—Intentions matter. *Games and Economic Behavior.* Volume 62, Issue 1, January 2008, pp. 287-303

[3]   Kolnhofer-Derecskei, A. & Nagy, V., 2017. Comparing risk definitions giving by Hungarian and Belgian Bachelor Students. *Thinking together*. In Press.

[4]   Kolnhofer-Derecskei, A., & Nagy, V. 2016. Under Risk. Proceedings of FIKUSZ '16 Symposium for Young Researchers, pp. 161-172 Online Available   at: https://kgk.uni-obuda.hu/sites/default/files/16_Derecskei_Nagy.pdf
[February 2017].

[5]   Reb, J. & Conolly, T. 2007. Possession, feelings of ownership and the endowment effect. *Judgment and Decision Making*, Vol. 2, No. 2, April 2007, pp. 107–114

[6]   Stiglitz, J. E. 1989. Principal and Agent In. Allocation, Information and Markets. Part of the series The New Palgrave pp 241-253

[7]   Thaler, R. H. 1980. Toward a Positive Theory of Consumer Choice. *Journal of Economic Behavior & Organization* 1(1) March 1980. pp. 39-60

[8] Tversky, A. & Kahneman, D., 1974. Judgement Under Uncertainty: Heuristics and Biases. *Science,* pp. 1124-1131.

Appendix 1.

Group A

Two gambles are offered to you but you can take part only in one of them. Which do you prefer?
- ☐ With a 50% chance you win 2,500 USD and with a 50% chance you win nothing
- ☐ There's a 20% chance that you win 5,000 USD and an 80% chance that you win nothing.

Suppose one of your best friends is in the same situation but you have to decide instead of him/her. Which would you choose for him/her?
- ☐ With a 50% chance he/she wins 2,500 USD and with a 50% chance he/she wins nothing
- ☐ There's a 20% chance that he/she wins 5,000 USD, and an 80% chance that he/she wins nothing.

Group B

Suppose you have just won 2500 USD in a gamble. What would you do? It's up to you whether you
- ☐ keep a sure gain of 2500 USD and quit the game
- ☐ you go on, continue the gamble, where there's a 20% chance that you double your winnings, a 50% chance that you can keep your 2500 USD and a 30% chance that you lose your money.

Suppose one of your best friends is in the same situation but you have to decide instead of him/her. Which would you choose for him/her?
- ☐ He/She has to quit and keep a sure gain of 2,500 USD
- ☐ He/She has to continue the gamble with the before mentioned assumptions/conditions.

Appendix 2.

Homecountry			
		Frequency	Percent
Valid	Afghanistan	2	2,0
	Albania	2	2,0
	Belgium	26	26,3
	France	4	4,0
	Germany	8	8,1
	Hungary	30	30,3
	Italy	2	2,0
	Moldova	1	1,0
	Poland	12	12,1
	Romania	6	6,1
	Serbia	1	1,0
	Spain	1	1,0
	Turkey	1	1,0
	Ukraine	3	3,0
	Total	99	100,0

Actual study					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BSC/BA	69	69,7	69,7	69,7
	MSC/MA	27	27,3	27,3	97,0
	PHD	2	2,0	2,0	99,0
	Don't know	1	1,0	1,0	100,0
	Total	99	100,0	100,0	

Main Subject

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business and administration	85	85,9	85,9	85,9
	Engineering	12	12,1	12,1	98,0
	Real estate	1	1,0	1,0	99,0
	Law	1	1,0	1,0	100,0
	Total	99	100,0	100,0	