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**THE IMPACT OF MONEY PRIMING ON TEAM-PERFORMANCE,  
AND SELF-CONCEPT.**

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# **THE IMPACT OF MONEY PRIMING ON TEAM-PERFORMANCE, AND SELF-CONCEPT.**

## **ABSTRACT**

This study intended to verify how money activating thinking about money influences attitude toward group work and collaboration. For this purpose, the author conducted the research designed of two distinct conditions: a control group and a money-primed group (experimental group). The experiment exposed that money priming decreases collective orientation: respondents in the experimental group were less willing to help group members, preferred to work on individual assignment and believed that there are more competent than the rest of the group. The study also exposed that money-primed participants show relevant to individual tasks attitude: they were more willing to accept a challenging project and preferred working independently without asking anyone for extra aid. Furthermore, the study proved that thinking about money increases the level of self-efficacy.

**Keywords:** Activating Thinking about Money, Self-Sufficient Orientation, Collectivism and Individualism, self-concept.

## INTRODUCTION

To prepare students for being more beneficial in the workplace, the universities courses are designed to develop students soft skills by including teamwork assignments. The goal of successfully created group work is to improve students leadership skills, conflict and time management abilities, cooperation performance and more. Mentioned above soft skills cannot be learned from the textbooks; hence the only possibility to obtain them is by practicing them (Sancho-Thoma et al., 2009). Accordingly, the host skills gained during the teamwork assignments should positively reflect students future work skills (Sancho-Thoma et al., 2009). Besides, the study of Graen and Uhl-Bien (1995), present the approach stating that leadership theories and in general interpersonal collaboration is based on social exchange theory. Hence, Bass (1985) demonstrates that money is essential at the workplace, but the collaboration is mostly about the social exchange of benefits like for example social approval, support, consideration, trust, exchange of favors. To conclude, the students participating in the course that include teamwork assignments mostly follow the social exchange theory, as in this case there is no monetary reward.

In psychology, various theories are exposed that money priming influences personal behavior toward others. Hence, Fiske (1992), indicated that thinking about money activates market pricing association which means that money-primed individuals look at the relationships between others' more as the economic exchange that social exchange. For example, Gnezzly and Rustiching (2000), conducted an experiment, that exposed that charging parents an extra fee for late children pick up from kindergarten did not decrease the time of delay, oppositely the parents tend to come to school later. This phenomenon can be seen as a 'shifting' from a social exchange to market pricing relationship. Hence, the parent that thinks about the fee is not seeing it as an encouragement to come to the kindergarten on time and release the babysitter (social exchange) but like the fact: I pay extra, yet I can be late (the economic

exchange). Therefore, even subtle money priming can influence personal behavior in the whole range of situations. Consequently, based on the psychology of money theories, presented research expose some consequences of thinking about money.

### **Definition of money.**

The primary economic definition of money describes it as a "medium of exchange," an "unit of accounting" and a "store of value" (Mankiw, 2008). Consequently, Fischer and Dornbusch (2005), determine money as a tool for the exchange of goods and services, more useful than barter. Theremore, Mansfield (2002) concluded that money could be everything that has a similar purpose to it: doesn't matter if people use debit cards or favorites. The relevant is if they can regulate theirs debts or collect receivables.

Moreover, the economic interpretation of the role that money plays in a humans life is not sufficient. The financial understanding is not competent as it is not taking into consideration an emotional and psychological matter that people associate with money. Psychologists often mark the polymorphous concept of money, and complex functions it plays (Snelders, 1992). Among others, Zhou (2009) recognize money as a social resource, while Bloom (1995) pointed out that the essential role of money is supporting interpersonal relations, and maintaining the society capacity. Accordingly, money can help with manipulating and influencing social system; it can provide the person with what it needs from the social network whether others like it or not (Lea & Webley, 2006). Money influence and maintain the social system yet it can be a cause of destroyed friendships, matrimonials and family connections (Adler, 2009). Besides social relations, money can impact personal self-feelings. Becker (1975) reveals that money has the power to change the situation, in which people feel small and helpless into the belief that they are big and in control. Consequently, for some people gathering and collecting money is a primary goal of theirs' life (Fromm, 1976; Hirschman, 1990; Maslow, 1943). Ultimately, money is not merely an instrument in economic

transactions, as many people view money as a symbol associating it with strength, security, prestige, freedom and personal satisfaction (Furnham & Agryle,1998).

### **Money priming.**

Money priming studies and researches confirmed that thinking about money can influence peoples' behavior, not just towards strangers but also family and friends (Gąsiorowska, 2009).

Kathleen D. Vohs (2006) demonstrates that thinking about money activates the self-sufficient orientation that might have positive and negative consequences:

a) Self-sufficient orientation is leading people to concentrate more on their' own goals by aiming to be more autonomic and increase resistant for being depended. It also increases perseverance in solving an unenforceable task and involving in more difficult obligations (Vohs, Mead, Good 2006, 2008).

b) The second aspect of self-sufficient orientation is ignoring people that need help or ask for aid (Vohs et al.,2006), unwillingness to spend free time with others (Mogilner, 2010) and activates the need of maintaining physical distance (Holland et al.,2004). Hence, money thinking impact indifference on social rejection (Zhou, 2009) and decrease the capacity to understand the perspective of others (Caruso, 2009).

## **THE PURPOSE OF THIS RESEARCH**

The goal of this study is to verify how thinking about money reflects team-work assignments. Conducting this research is significant as the results can change the overview of money as an incentive for group work and collaboration. If this research supports the following hypothesis, it can be concluded that money priming different influence behavior concerning team-work or individual task.

*H1: Thinking about money affects individual behavior and decreases collective orientation.*

Furthermore, the previous studies exposed that money priming influences personal resistance in solving the problematical task, without the need of help from the others. Therefore, money priming causes the demand for autonomy and independence but also influence the unwillingness of having others being dependent on money primed person (Vosh et al., 2006). In consequences, the following hypothesis was created:

***H2:** Money-primed participants expose relevant to individual assignments attitude.*

An extra goal of this research is controlling if self-esteem influences the results of the study. Self-esteem is a global and relatively stable individual overall positive or negative evaluation of himself or herself: a personal feeling of self-worth (Rosenberg, 1960). Individuals with high self-esteem, compared to the ones with low-self esteem feel less socially rejected (Leary, Terdal, Downs, 1995), declare smaller pain experience (Canella, Lobel, Glass, Lokshina, Graham, 2007), and work harder on unsolvable tasks (Baumeister, Campbell, Krueger, Vohs 2003). Consequently, thinking about money and high self-esteem alike fulfill the function of the protective buffer against adverse situations like the experience of failure, social rejection feeling, and physical pain. On the other hand, according to Zhang (2009) people with low-self esteem compensate decreases of self-esteem associating money with a symbol of power, prestige, and success. Hence individuals with low self-esteem might stronger react to experimental manipulation as they mostly relate money with its psychological functions, not economical (Gąsiorowska, 2010). Based on those assumptions the author decided to establish the following hypothesis:

***H3:** Money-priming will stronger influence individuals with low self-esteem than with high self-esteem.*

To supplement the self-concept, an additional purpose of this study is verification how money priming impacts the feeling of self-efficacy. Self-efficacy is a self-belief in individual capacity to perform actions necessary to deliver specific performance accomplishments

(Bandura,1977,1986,1997). In other words, it is a personal belief in the ability to succeed in a particular situation. Based on the experiment conducted by Mukherjee and Manjaly (2013), that exposed that money priming increases the self-efficacy, the author of this study decided to verify if this theory confirms in this research:

*H4: Money priming increases the level self-efficacy.*

## **METHODOLOGY**

### **Participants and procedure:**

In the study participated 150 students (82 women, and 68 men). All of them were students of the Nova School of Business and Economics (Appendix 1- Table I).

The author of the researched approached students staying in the shared zone (e.g., canteen, library) kindly asking them to fill out one of two randomly selected pen and paper questionnaires. The researcher informed the participant that participation in the study is voluntary, anonymously and has purely scientific character. After the students confirmed participation in the experiment, the author politely notified that the survey must be filled out individually in the proper order. After 10 minutes the author collected filled out a questionnaire. Some of the questionnaires were collected during classes with the permission of the professors. The procedure was similar. The author collected 158 surveys in which 150 was correctly filled out and taken into further analysis.

Each of the participants randomly filled one of two versions of the survey specifically designed to create two distinct conditions: a control group and a money-primed group (experimental group). The author created the experimental manipulation the tool aimed to activate thinking about money in the experimental group. The researchers in previous studies used different methods of money priming. For example, Liu (2011) presented to the experimental group video with swimming bills, and control swimming shells, Gal (2012)

showed photography of bills or office supplies, Yong and Li (2012) asked participants to count real bills or white papers. Based on those examples the author created two different equations (Appendix 2):

1) Participants in the experimental group were solving the equations created from the images of money. To increase the certainty of activating thinking about money the experimental group was solving the equation designed from the pictures of a significant amount. Hence, the small amount of money might not influence the behavior notable (Briers, 2006; Baryła, 2013).

2) Respondents in the control group were solving the equations made of the images of candies.

In total 72 students fill out the candy-related equation and 78 money-related equation.

### **Measures:**

#### **Dilemma\_1:**

Participants were presented with a small school-related situation designed by the author.

*“One of the parts of the course that you are taking is group-project. All group members will be evaluated equally, not individually. You know all your team members, as all students could decide who they want to work with”.*

Next step, they were asked to think about their behavior in this situation and answer to what extent they agree with the statements, indicating the answers on the seven-point Likert scale: from Strongly Disagree (1) to Strongly Agree (7). Dilemma\_1 was created from 8 diagnostic statements all of them were designed based on previous money priming studies. Examples of the statements:

- *After the meeting, I would find a time to help the team member that asked me for a help,*
- *If there were a possibility, I would prefer to work on the individual assignment, then group work,*

### **Dilemma\_2:**

The following was a Dilemma\_2 created by the author. The goal of it was to determinate the behavior of primed participants in a work-related situation. As in the Dilemma\_1 respondents were asked to read the following story and describe how would they behave:

*“Adam, your colleague from a different division dropped a new project that he was individually working on. You have a lot of work, although taking the project seems to be challenging, inspiring and exciting. On the other hand, you know that it will be time-consuming. It means working on your current tasks plus after work hours on the new one. Additionally, you are aware that your boss will not support your decision in taking the project as it is not part of your job:*

Participants marked the answers on the scale from Strongly Disagree (1) to Strongly Agree (7). Dilemma\_2 consist of 6 diagnostic statements, created by influence from another money primed studies. Examples of the allegations:

- *Despite adversity, I would like to be in charge of this individual project,*
- *I will ask Adam (a colleague from a different division) for help,*

### **The General Self-Efficacy Scale:**

The participants also filled The General Self-Efficacy Scale (GSE) designed by Ralf Schwarzer and Matthias Jerusalem (1979). This scale contains 10 diagnostic statements concerning the general sense of perceived self-efficacy. Participants answered on a scale from strongly agree (1) to strongly disagree (4). The scale included statements such as:

- *On the whole, I am satisfied with myself,*
- *I feel I do not have much to be proud of,*

### **Control Variables:**

Before the priming manipulation, to ensure comparability of participants, all students answered the Rosenberg Self-Esteem Scale - SES (1965). The scale consists of 10 diagnostic questions about personal self-beliefs and measures the levels of self-esteem treated as a relatively permanent feature, not a temporary state. Respondents indicated answers on a scale from strongly agree (1) to strongly disagree (4). The scale included questions such as:

- *On the whole, I am satisfied with myself,*
- *I certainly feel useless at times,*

After the priming of money, the author wanted to ensure that the mood of the participants does not influence the results. In fact, Furnham (1999), Dunn (2008), Zhou (2009) studies showed that there is a possibility that the money-related task influences the affect of participants.

Accordingly, the participants answered the short version of **Positive and Negative Affect Schedule (PANAS)** designed by Watson, Clark, and Tellegen (1988). This scale allows measuring the intensity of positive and negative emotions. PANAS consists two 10-item scales to measure both positive and negative affect. Respondents were asked to define their feelings at the present moment. They indicated answers on a scale from "very slightly or not at all" (1) to "extremely" (5). Sample emotions from the survey are: *Indicate to what extent you feel this way right now, that is, at the present moment:*

- *interested,*
- *strong,*
- *guilty*

## RESULTS

To test the designed hypothesis, statistical analyzes were carried out by interpreting the data with IBM SPSS Statistics version 25. By using IBM SPSS, the autor performed the analysis of basic descriptive statistics, Pearson's correlation coefficient, Student's t-tests for independent variables and a two-factor series analysis of variance.

### Self-esteem in the control group and in the experimental group

Student's t-test for independent variables was performed to verify the differences between the control group and the experimental group in the area of self-esteem. The test does not indicate any statistical significance which means that people from the experimental group have similar self-esteem to those in the control group.

Table 1. *Self-esteem in the control group and in the experimental group*

	Experimental Group (n = 78)		Control Group (n = 72)		t	p	95% CI		d Cohena
	M	SD	M	SD			LL	UL	
Self-esteem	29,45	5,26	30,03	3,98	-0,76	0,446	-2,08	0,92	0,12

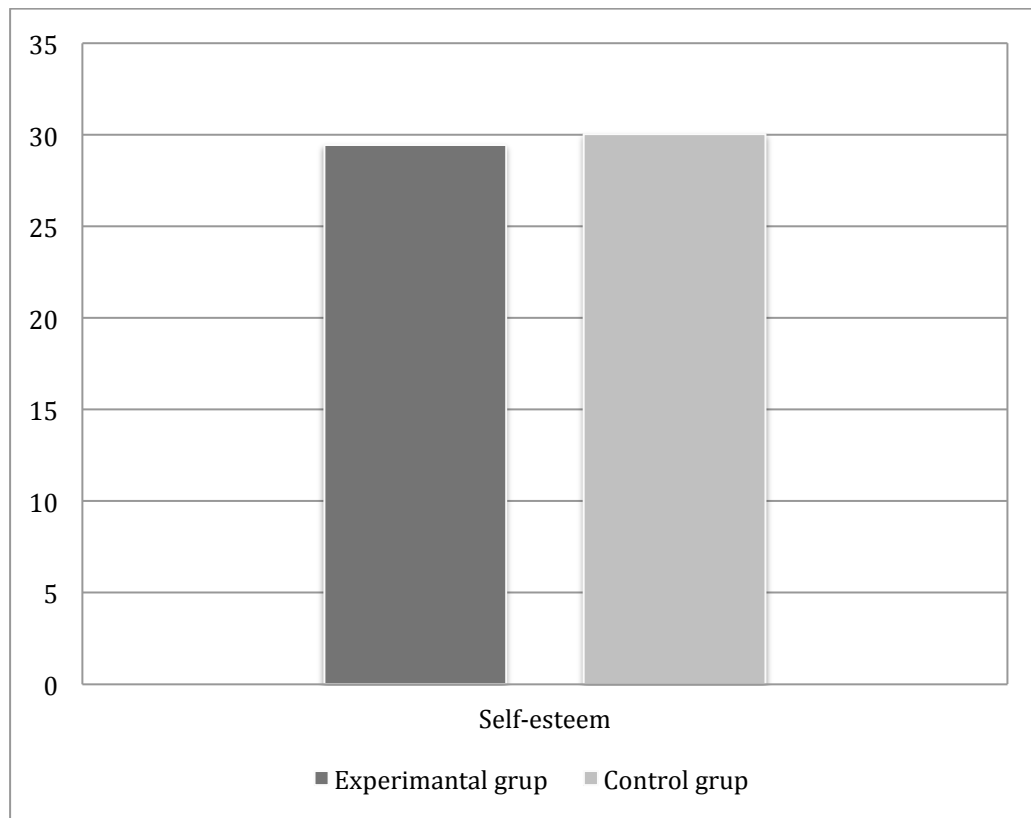


Chart 1: *Experimental vs. control group and self-esteem.*

### Positive and negative emotions in the control and experimental group

The second analysis was a verification whether the control group differs from the experimental group in the area of positive and negative affect. The results of the analyzes indicate that there are no statistically significant differences between the groups. The level of positive and negative emotions is not different in the experimental and control group.

Table 2. *Positive emotions and negative affect in both control and experimental groups.*

	Control Group (n = 72)		Experimental Group (n = 78)		t	p	95% CI		d Cohena
	M	SD	M	SD			LL	UL	
Positive Affect	31,24	6,01	30,04	6,13	1,21	0,230	-0,76	3,16	0,20
Negative Affect	15,35	5,04	15,44	3,98	-0,12	0,906	-1,56	1,39	0,02

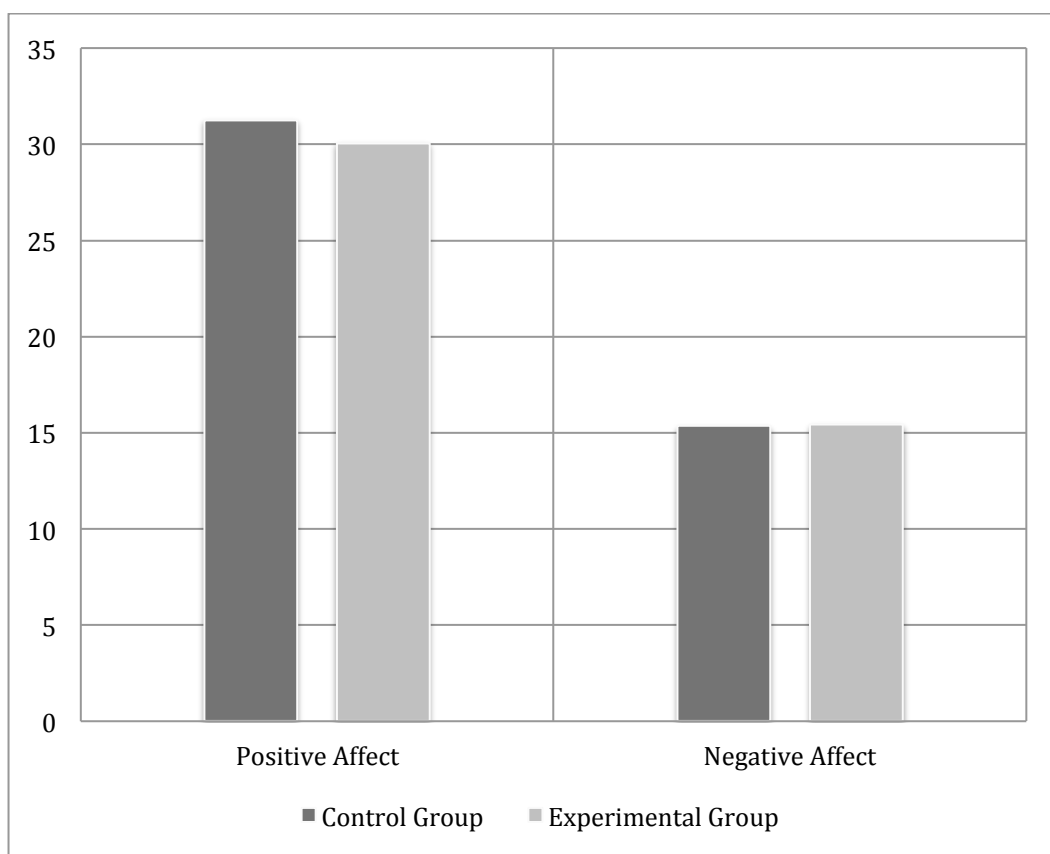


Chart 2. *Control group vs experimental group: positive emotions and negative emotions.*

Dilemma 1 money priming vs. self-esteem in the experimental and control group.

The next part of the statistical analyzes was verifying whether the control group and the experimental group differentiate the answers obtained in questions about dilemmas. Additionally, in the analysis, the author included the level of self-esteem (concerning the median) and categorized it into high and low. In the control group, 30 students had low self-esteem, and 42 had high self-esteem yet in the experimental group 42 students had low self-esteem, and 36 had a high level of self-esteem. Accordingly, a two-factor analysis of variance was carried out in scheme 2 (control and experimental groups) x 2 (self-esteem: low and high) (see: Appendix 3-4).

Table 3. *The value of first statement and interaction interaction low and high self-esteem*

Statement 1.		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
If there were a possibility, I would prefer to work on the individual assignment, then group work.	Control group	3,64	0,20	3,24	4,04	$F(1,146) = 0,01; p = 0,919; \eta^2_p < 0,01$
	Experimental	5,02	0,19	4,64	5,41	

The analysis of the first statement exposed that students from the experimental group were more in agreement with it that students in the control group. This effect confirms the previous money priming studies that revealed that thinking about money influence the concentration on personal aims and goals (Vohs 2006, 2008). Hence, money priming activated the need of keeping autonomy, feeling treated by others and in consequences preference of working individually (Vohs, Mead, Goode, 2006).

Table 4. *The value of secound statement and interaction between low and high self-esteem.*

Statement 2		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
I would like to perform the most challenging part of the assignment.	Control group	4,15	0,14	3,86	4,43	$F(1,146) = 0,07; p = 0,798; \eta^2_p < 0,01$
	Experimental	4,83	0,14	4,56	5,09	

A similar analysis was carried out for the second statement. The main effect of the group is significant. The willingness to perform the most challenging part of the assignment in money primed group can be explained by the studies that exposed that thinking about money

activates concentration on individuals aims and self-development (Bargh et al.,2001). Hence, it also causes overestimation of personal skills (Gąsiorowska, 2011), and increase the feeling of self-efficacy (Mukherjee, et al.,2013).

Table 5. *The value of third statement and interaction between low and high self-esteem.*

Statement 3		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
I believe that I am more competent than rest of the team members.	Control group	3,69	0,16	3,37	4,01	$F(1,146)=4,42; p = 0,037; \eta^2p = 0,03$
	Experimental	4,42	0,15	4,11	4,72	

The analysis exposed that students from the experimental group agree stronger with the third claim than those in the control group. This result can be explained by Gąsiorowskas' (2001) research that indicates that money priming increases the narcissism and in consequences the overestimation of personal skills and achievements. Besides, thinking about money causes aversion of accepting others perspective (Caruso et al., 2009; Van Laer et al.,2013) and overestimating individual rights and privileges (Yong, Liu, 2012).

Also in the third statement, there is a statistically significant difference between students level of self-esteem. The participants in the experimental group with low self-esteem stronger believed in their' competencies than students in the control group with low self-esteem.

Table 6. *The value of fourth statement and interaction between low and high self-esteem.*

Statement 4		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
I expect from all member to be prepared as good as I am.	Control group	4,93	0,18	4,58	5,27	$F(1,146) = 1,49; p = 0,225; \eta^2p = 0,01$
	Experimental	5,25	0,17	4,93	5,58	

The analysis of the fourth statement showed that there is no significant difference between any of the groups. It follows that belonging to the experimental or control group, with high or low self-esteem does not differentiate the results obtained in this statement. It didn't confirm the assumption of the author. Hence, based on Vohs (2006) theory self-sufficient orientation might cause peoples' believe in others self-sufficient orientation, e.g., money-primed participants want to be independent and they think that others also want to be independent. Oppositely, the analysis of the fourth statement showed that participants that were thinking

about money didn't expect others to be prepared as good as them. Moreover, it can be explained by the possibility that students that were money primed didn't expect others to be well prepared as it wasn't in their interest (Gąsiorowska, 2010).

Table 7. *The value of fifth statement and interaction between low and high self-esteem.*

Statement 5		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
When confronted with several ideas, usually my opinion is better than the rest of the group.	Control group	4,02	0,15	3,72	4,32	$F(1,146) = 2,46; p = 0,119; \eta^2p = 0,02$
	Experimental	4,47	0,14	4,19	4,75	

Students from the experimental group stronger agreed with the fifth claim than the control group. It confirmed the assumption of the author. A likely to the third statement this effect can be explained by the study that exposed that money priming increases the overestimation of the personal skills and achievements (Gąsiorowska, 2001). Further, as already mentioned thinking about money drives the need of keeping the autonomy and feeling threat by others (Yong, Liu, 2012).

Table 8. *The value of sixth statement and interaction between low and high self-esteem.*

Statement 6.		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
While working on the project, I would take the time and listen to the feedback from team-members about my part..	Control group	5,78	0,12	5,54	6,03	$F(1,146) = 5,19; p = 0,024; \eta^2p = 0,03$
	Experimental	5,52	0,12	5,29	5,75	

The analysis made for the statement sixth presented that the main effect of the group was not significant. As mentioned above thinking about money causes hostility against others (Clark, Mills, Corcoran, 1989), looking at others as a threat to their' autonomy (Yong, Liu, 2012) and increases personal beliefs in their competences, successions, and independence (Gąsiorowska, 2011). Based on those studies the author assumed that money-primed participants could be less willing to hear the feedback from other team members. The assumption was not confirmed, as both groups were equally ready to listen to the feedback from their' peers. Moreover, there is a possibility that money-primed students were willing to hear the feedback due to an increased overestimation of their skills and a higher level of self-efficacy. In

consequences, they didn't expect feedback to be negative. Also, they could have seen an opportunity of self-improving by knowing the input from peers.

Besides, participants in the control group with a high level of self-esteem stronger agreed with this statement than students in the experimental group with high self-esteem.

Table 9. *The value of seventh statement and interaction between low and high self-esteem.*

		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
<b>Statement 7.</b>						
After the meeting, I would find a time to help the team member that asked me for a help.	Control group	5,72	0,15	0,42	6,02	$F(1,144) = 2,45; p = 0,120; \eta^2p = 0,02$
	Experimental	5,12	0,14	4,83	5,40	

The results of the analysis of the seventh question showed that respondents in the control group are more in agreement with the statement that respondents from the experimental group. The results can be explained by the early studies that exposed that money priming increases the need for independence and in consequences leads to concentration on individual goals and self-development, not potential perks from helping others (Reutner, Wanke, 2013). Hence money-primed people ignore others as they assume that others don't have a significant influence on their welfare or are not helpful in achieving their' personal goals (Reutner, Wanke, 2013). Additionally, Gaşiorowska (2012) studies exposed that individuals that think about money as less willing to help even if they know the person asking for aid.

Table 10. *The value of eighth statement and interaction between low and high self-esteem.*

		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
<b>Statement 8.</b>						
When the project is over, I would prefer to go to spend free time on my own than with group members	Control group	3,48	0,20	3,10	3,87	$F(1,146) = 1,47; p = 0,227; \eta^2p = 0,01$
	Experimental	5,13	0,19	4,76	5,50	

Analysis of the variance of the last statement from the first dilemma shows that students from the experimental group are more in agreement with this statement than students from the control group. The results confirm the study of Mogilner (2010) that shows that people that think about money are less willing to spend time with others.

Dilemma\_2 money priming vs. self-esteem in the experimental and control group.

Analogically the same interpretation of two-factor analysis of variance was carried out in Dilemma\_2: scheme 2 (control and experimental groups) x 2 (self-esteem: low and high) for six statements (see: Appendix 5-6).

Table 10. *The value of first statement and interaction between low and high self-esteem.*

Statement 1.		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
Despite adversity, I would like to be in charge of this individual project.	Control group	3,85	0,17	3,50	4,19	$F(1,146) = 0,01; p = 0,921; \eta^2p < 0,1$
	Experimental	4,80	0,16	4,47	5,12	

The results of the analysis for the first statement of the second dilemma indicate a significant main effect of the group exposing that people from the experimental group were more in agreement with the first claim than those in the control group. This statement was created based on studies that exposed that thinking about money influences personal need of self-development (Vosh et al.,2001) increases the level of self-efficacy (Mukherjee et al.,2013) and causes overestimation of individual skills and achievements (Gąsiorowska, 2001).

Table 11. *The value of second statement and interaction between low and high self-esteem.*

Statement 2.		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
Taking this project might be risky, and I enjoy taking risky decisions.	Control group	3,74	0,16	3,42	4,06	$F(1,146) = 0,04; p = 0,844; \eta^2p < 0,01$
	Experimental	4,48	0,15	4,56	5,16	

For the second statement, the analyzes carried out indicate the significance of the main group effect. It demonstrates that the students from the experimental group were more willing to risky decisions. Those results confirm that idea that money priming leads people to perform more risky decisions (Gąsiorowska, 2001).

Table12. *The value of third and fourth statement and interaction between low and high self-esteem.*

Statement:		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
3. I will convince my boss that taking the project will be additionally after-work occupation	Control group	4,16	0,17	3,82	4,49	$F(1,146) = 0,30; p = 0,587; \eta^2p < 0,01$
	Experimental	5,07	0,16	4,74	5,38	
4. I will spend as much time as possible to make this project the best.	Control group	4,05	0,18	3,70	4,41	$F(1,146) = 0,84; p = 0,362; \eta^2p = 0,01$
	Experimental	5,34	0,17	5,00	5,67	

Analysis of the third and fourth statement exposed that students from the experimental group are more in agreement with those statements than participants from the control group. Comparable to the previous allegations the author created them based on the researches that exposed that thinking about money increases resistance in solving the problematical task (Vosh, 2006), strengthen the persistence and effort in pursuing the aims (McFalin 1984: Sommer, Baumeister, 2002). Therefore, money priming increases concentration oneself-development (Bargh et al.,2001), causes overestimation of personal skills (Gąsiorowska, 2001) and increases the feeling of self-efficacy (Mukherjee et al.,2013).

Table13. *The value of fifth and sixth statement and interaction between low and high self-esteem.*

Statement:		<i>M</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>Interaction between group and self-esteem</i>
5. I will ask Adam (colleague from a different division) for help.	Control group	5,23	0,15	4,93	5,53	$F(1,146) = 0,34;$ $p = 0,563; \eta^2 p < 0,01$
	Experimental	3,08	0,15	2,79	3,37	
6. I will try to find other co-workers that will help me with the new task.	Control group	5,21	0,16	4,89	5,53	$F(1,146) = 0,21;$ $p = 0,649; \eta^2 p < 0,01$
	Experimental	3,23	0,15	2,93	3,54	

For the fifth and sixth statement, the analyzes carried out indicate the significance of the main group effect. It demonstrates that the students from the control and experimental group more strongly agree with the fifth and sixth claim that the participants from the control group. It also overlaps with the statement one in a dilemma one. Those results confirm that money-primed participants present to work individually than in the team (Reutner, Wanke, 2013). It also proves the theory that the thinking about money decreases the willingness to ask others for help (Vohs et al.,2006).

#### Correlation between self-esteem and self-efficacy

Following the author verified if the self-esteem is correlated with self-efficacy. For this purpose, the Pearson correlation coefficient was performed. The analysis was conducted separately in the experimental and control group. The results exposed that in the control group there is a positive relationship between self-esteem and self-efficacy. Consequently, in the

control group, there is a co-occurrence between self-esteem and self-efficacy. Therefore, no statistically significant correlation was found between self-esteem and self-efficacy in the experimental group.

Table 3. *Self-esteem and self-efficacy in the control group and the experimental group.*

		Self-esteem	
		Control Group	Experimental Group
Self-efficacy	Pearson Correlation	0,51	-0,03
	Significance	<0,001	0,828

Self-efficacy in the experimental group and the control group

The next stage of statistical analyzes was to verify whether belonging to a control group or an experimental group modified the level of self-efficacy. The respondents from the experimental group differ from those in the control group regarding self-efficacy. The experimental group is characterized by a higher level of self-efficacy than the control group. This result confirmed authors assumption stating that thinking about mone increases the level of self-efficacy.

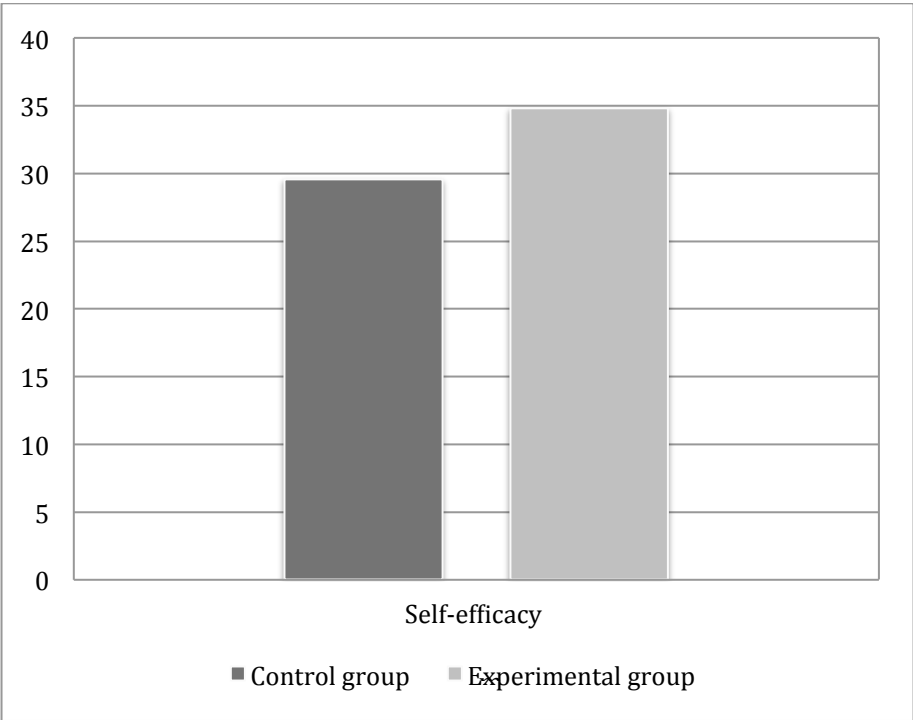


Chart 3. *Self-efficacy in the control and experimental group.*

## DISCUSSION

At the beginning of this study, the author noticed that at some universities one of the elements of the courses is a teamwork assignment. The goal of it is to practice students' skills essential at the workplaces. Moreover, in the real work situation money is one of the most crucial elements. Of course, depending on the type of the organization it might be more or less critical, yet usually, money is present. Accordingly, people tend to think about money, and even subtle or unconscious money priming can influence personal behavior.

Presented above literature review established that money-priming influences individual reflection and action. Thinking about money strengthens the pursuit of achieving a personal goal, increases the sense of agency and the level of self-efficacy, supports under challenging times for example when a person feels pain, social rejection, failure or lack of control.

### Outcomes from Dilemma\_1 and Dilemma\_2.

Based on the results of previous studies, the primary goal of this research was to verify how money priming would influence the behavior of the students in group work assignments. The author created the first hypothesis stating that money-primed participants would be less collective orientated, than respondents in the control group. To test it, the author conducted the research designed of two distinct conditions: a control group and a money-primed group (experimental group). To determine the possible impact of money priming the author created Dilemma\_1, a school-related situation regarding a group project. The participants were answering to what extent they agree with the eight statements. All of the allegations were constructed based on the previous money-primed studies. The statistical analysis of the answers partly confirmed created by the author first hypothesis. The results showed that money-primed students: prefer to work on the individual assignment, aspire to perform the most challenging part of the task, believe that they are more competent than the rest of the group, stating that confronting with ideas of others their opinions is usually better. Besides,

students from the experimental group were less willing to help other team members and preferred to spend time on their own, not with peers. Therefore, two of the eight statements did not confirm the assumption of the allegation: the author supposed that money-primed participants would expect from peers being as well prepared as they and would not be willing to hear the feedback about their part. Hence, there is a possibility that the assumption was not confirmed as money-primed participants didn't see their' benefits and interest in other member preparation. Accordingly, they are willing to spend time on hearing the feedback about their' part as they believe that it can improve their' future performance.

Following the second goal of the study was to verify how money priming would influence personal behavior in an individual task. Inspired by the Kathleen D. Vohs (2006) self-sufficient orientation and Fiske (1992) theory of market pricing relationship the author decided to verify if thinking about money would expose possibly relevant to individual assignments characteristics. To confirm the assumption the author created Dilemma\_2 a work-related story. The statistical analysis of the six assumptions confirmed the second hypothesis. The outcome exposed that money-primed students were more enthusiastic to work on challenging work project, were willing to spend extra time on developing the project, didn't want to ask others for help, and declared that they enjoy taking risky decisions.

#### Dilemma\_1 and Dilemma\_2 limitations and recommendations.

It is critical to mark that despite that the results confirmed the assumptions of the author, there might be different explanations of the outcome. Psychology of money is an underestimated field that still needs significant improvement and conducting additional researchers. Lack of a sufficient number of studies influence defects of the presented research. For example, the weakness of the given study can be a selected sample: students in this researched were attending Nova School of Business and Economic. Hence, the respondents from business school might be more exposed to the money priming on a daily basis than for example art

students. Unfortunately, the research that would expose if people that are thinking about money on a regular basis are more or less vulnerable on money priming influence doesn't exist. Therefore, in the future, it would be recommended to study a more diversified sample: more variable when it comes to age, education and life occupation.

Moreover, if this study would be again performed at the university, it would be advisable to add one more experimental group, in which the students would be primed by thinking about the mark. As the author mentioned in the introduction, at the workplace the employees might be exposed to thinking about money yet the students at a school are not influenced by it. Therefore the students might be affected by thinking about the mark and grading system. Consequently, there would be an opening to verify if thinking about the mark influence students behavior and examine if the results are related to money-priming studies.

Additionally, despite that, the previous money-primed studies inspired the author to create Dilemma\_1 and Dilemma\_2 those stories are not precise measurement tools used in psychology. Consequently, some of the statements in the dilemmas can be seen as subjective. For example not being willing to ask for help caused by money-priming might be viewed as a positive outcome, but also harmful either in individual or teamwork assignments. In the future, to measure the influence of thinking about money on collective orientation it would be suggested to use the more reliable tool, for example, the Collective Orientation Scale developed by Driskell, Salas, and Hughes (2010).

Therefore, it would be highly recommended to verify the results of this study by performing a field experiment. It might prove the influence of thinking about money on individual behavior in real school/work related situation. Besides, in this case, it would be advisable to measure the performance of the participants, to verify if thinking about money increases or decreases the task outcome.

### Outcomes from self-esteem level in Dilemma\_1 and Dilemma\_2.

The additional purpose of this research was a verification how the level of self-esteem might influence the results. Accordingly, before the experimental manipulation as a control variable, the author used the Rosenberg Self-Esteem Scale. Hence, the literature review exposed that thinking about money and a high level of self-esteem might fill full alike functions. On the other hand, people with low self-esteem tend to hesitate to present their ideas, show a lack of confidence when it comes to theirs' self-belief and in general are more variable to the concept of money as they more value symbolic functions of it. In consequences, the author assumed that there might be a difference in the answers to the statements when it comes to the group (control vs. experimental) and level of self-esteem (high-low). Based on the studies of Agata Gąsiorowska (2010) the author concluded that participants in the money-priming group with a low level of self-esteem are going to be more influenced by the experimental manipulation, than the participants with a high level of self-esteem. The analysis of variance did not confirm the assumption of the author as belonging to the experimental or control group, with high or low self-esteem, does not differentiate the results obtained in most of the allegations. The significant differences between the level of self-esteem and belonging to the group was exposed just in two over fourteen statements. In the third statement of Dilemma\_1, the experimental group with low self-esteem stronger believed in their' competencies than students in the control group with low self-esteem. Besides, significant differences between the level of self-esteem were exposed just in sixth statement. The control group with a high level of self-esteem stronger agreed with taking the time to listen to the feedback from team-members about theirs part than students in the experimental group with high self-esteem. The statements form Dilemma\_2 didn't show any statistical significance when it comes to the level of self-esteem of students.

Several possibilities can explain the lack of expected results. Hence, people with a low level of self-esteem might react stronger to the experimental manipulation as they believe more in the symbolic value of money, e.g., money as a reflection of the success (Zhang, 2009). Therefore there is a likelihood that students of business school do not look at money as a symbol but as a medium of the transaction. In future studies, it would be suggested to use the Short version of Money Attitudes Questionnaire (Gąsiorowska, 2013) as it might verify the participants' attitude toward money. Also, as it was mentioned above, it would be advised to differentiate the sample by participants from diverse economic class, school, profession.

Additionally, the author of this study based its hypothesis on Zhang (2009) research yet in opposition, the research of Meinarno and Rahardjo (2002) revealed that people that believed in the symbolic meaning of money had higher self-esteem. Besides one of the Agata Gąsiorowskas (2014) studies exposed that money priming increases self-esteem and it can be another explanation why the authors' assumption was not confirmed. Hence, the participants with low self-esteem after the money priming had higher self-esteem and the statistical analysis couldn't show the proper results. Therefore Grażyna Wąsowicz-Kiryło (2014) research did not confirm Gąsiorowskas studies (2014) stating that self-esteem is a relatively stable self-believe and thinking about money shouldn't influence it. To sum up, current money-priming studies linked with self-esteem did not show indiscrete results. In the future, to better understand the outcome of this paper it would be recommended to perform more money-priming/self-esteem studies for example by using the Rosenberg Self-Esteem Scale as a measurement tool after experimental manipulation, not a control variable.

### The implementation of this study in daily conditions.

Money can't buy love and sympathy; it can't ensure inner peace or self-respect. Nevertheless, for many people, it is an equivalent of success and power. Unfortunately, people don't realize how this piece of paper, a colored coin made of metal, or more often the "trace" in the form of a bank transfer can impact their' lives even when they unconsciously think about it.

Presented above study showed how thinking about money can affect behavior concerning team-work and individual task. By recognizing the results of this research the employees and even the university professor might predict the action of the employees/students that are exposed to thinking about money. The study proved that thinking about money decreases collective orientation yet disclose relevant to individual assignments attitude (e.g., unwillingness to ask for help, need to be independent, persistence in achieving personal goals). Accordingly, it might be more efficient to assign a monetary task as an individual assignment, not a team-project. Therefore, it is crucial to remember that in money-primed studies there is still a gap that should be filled by future experiments. Consequently, activating thinking about money causes engaging in more ambitious responsibilities and increased level of self-efficiency, yet it might not mean better performance and achievements.

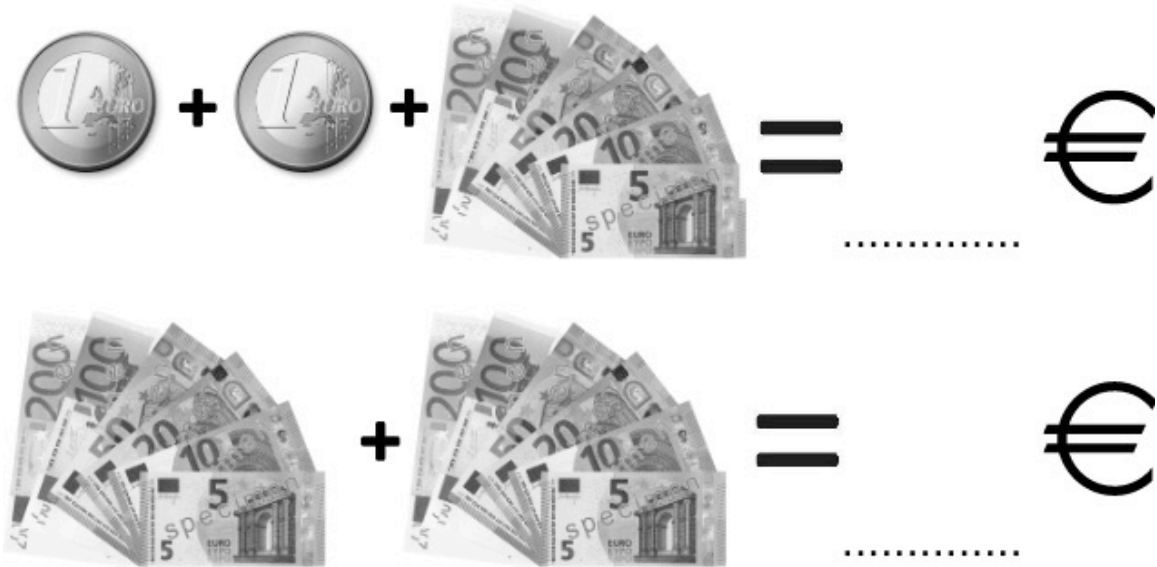
## APPENDIX

Appendix 1. Table I. *Gender, nationality and the program of participating students.*

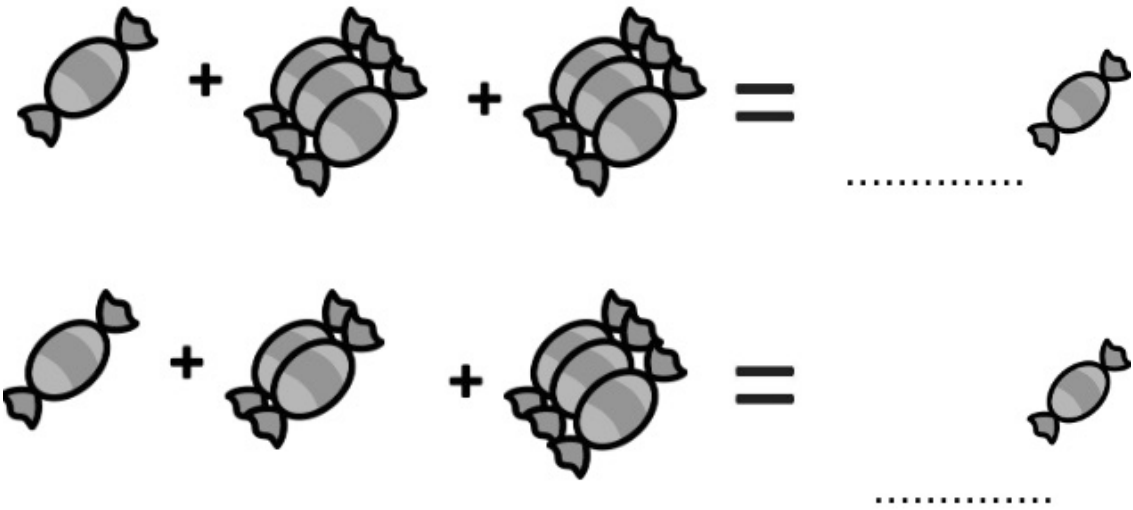
Group	Gender	Country	Program
Control	Female n= 39	Portugal = 8 Germany = 17 Italy = 6 Other = 8	Mastre in Management = 29 Master in Finance = 3 Master in Economic = 5 CEMS Master = 1 Bachelor in Economics = 0 Bachelor in Management = 0 Other = 1
	Male n=33	Portugal = 7 Germany = 15 Italy = 6 Other = 5	Mastre in Management = 11 Master in Finance = 12 Master in Economic = 4 CEMS Master = 6 Bachelor in Economics = 0 Bachelor in Management = 0 Other = 0
Experimental	Female n=43	Portugal = 13 Germany = 14 Italy = 8 Other = 8	Mastre in Management = 20 Master in Finance = 14 Master in Economic = 5 CEMS Master = 3 Bachelor in Economics = 0 Bachelor in Management = 1 Other = 0
	Male n=35	Portugal = 5 Germany = 9 Italy = 6 Other = 15	Mastre in Management = 11 Master in Finance = 13 Master in Economic = 6 CEMS Master = 4 Bachelor in Economics = 0 Bachelor in Management = 0 Other = 1

Appendix 2. Example of Equations:

Money Equation (experimental group):



Candy Equation (contrl group):



Appendix 3. Table II. *Values for the answers for the statements from 1 to 8 for Dilemma\_1.*

Statements		M	SE	95% CI	
				LL	UL
1. If there were a possibility, I would prefer to work on the individual assignment, then group work.	Control group	3,64	0,20	3,24	4,04
	Experimental group	5,02	0,19	4,64	5,41
2. I would like to perform the most challenging part of the assignment.	Control group	4,15	0,14	3,86	4,43
	Experimental group	4,83	0,14	4,56	5,09
3. I believe that I am more competent than rest of the team members.	Control group	3,69	0,16	3,37	4,01
	Experimental group	4,42	0,15	4,11	4,72
4. I expect from all member to be prepared as good as I am.	Control group	4,93	0,18	4,58	5,27
	Experimental group	5,25	0,17	4,93	5,58
5. When confronted with several ideas, usually my opinion is better than the rest of the group.	Control group	4,02	0,15	3,72	4,32
	Experimental group	4,47	0,14	4,19	4,75
6. While working on the project, I would take the time and listen to the feedback from team-members about my part.	Control group	5,78	0,12	5,54	6,03
	Experimental group	5,52	0,12	5,29	5,75
7. After the meeting, I would find a time to help the team member that asked me for a help.	Control group	5,72	0,15	0,42	6,02
	Experimental group	5,12	0,14	4,83	5,40
8. When the project is over, I would prefer to go to spend free time on my own than with group members.	Control group	3,48	0,20	3,10	3,87
	Experimental group	5,13	0,19	4,76	5,50

Appendix 4. Table III. *Values of statement 1 to 8 for the Dilemma\_1 in the control and experimental group regarding people with low and high self-esteem.*

Statements		M	SE	95% CI	
				LL	UL
1. If there were a possibility, I would prefer to work on the individual assignment, then group work.	Low self-esteem	4,17	0,20	3,77	4,58
	High self-esteem	4,49	0,19	4,11	4,87
2. I would like to perform the most challenging part of the assignment.	Low self-esteem	4,40	0,14	4,11	4,68
	High self-esteem	4,58	0,14	4,31	4,84
3. I believe that I am more competent than rest of the team members.	Low self-esteem	4,07	0,16	3,75	4,39
	High self-esteem	4,04	0,15	3,73	4,34
4. I expect from all member to be prepared as good as I am.	Low self-esteem	4,98	0,18	4,63	5,32
	High self-esteem	5,21	0,17	4,88	5,53
5. When confronted with several ideas, usually my opinion is better than the rest of the group.	Low self-esteem	4,35	0,15	4,06	4,65
	High self-esteem	4,13	0,14	3,85	4,41
6. While working on the project, I would take the time and listen to the feedback from teammembers about my part.	Low self-esteem	5,36	0,12	5,12	5,61
	High self-esteem	5,94	0,12	5,70	5,17
7. After the meeting, I would find a time to help the team member that asked me for a help.	Low self-esteem	5,07	0,15	4,77	5,37
	High self-esteem	5,77	0,14	5,49	6,05
8. When the project is over, I would prefer to go to spend free time on my own than with group members.	Low self-esteem	4,46	0,20	4,07	4,85
	High self-esteem	4,15	0,19	3,79	4,52

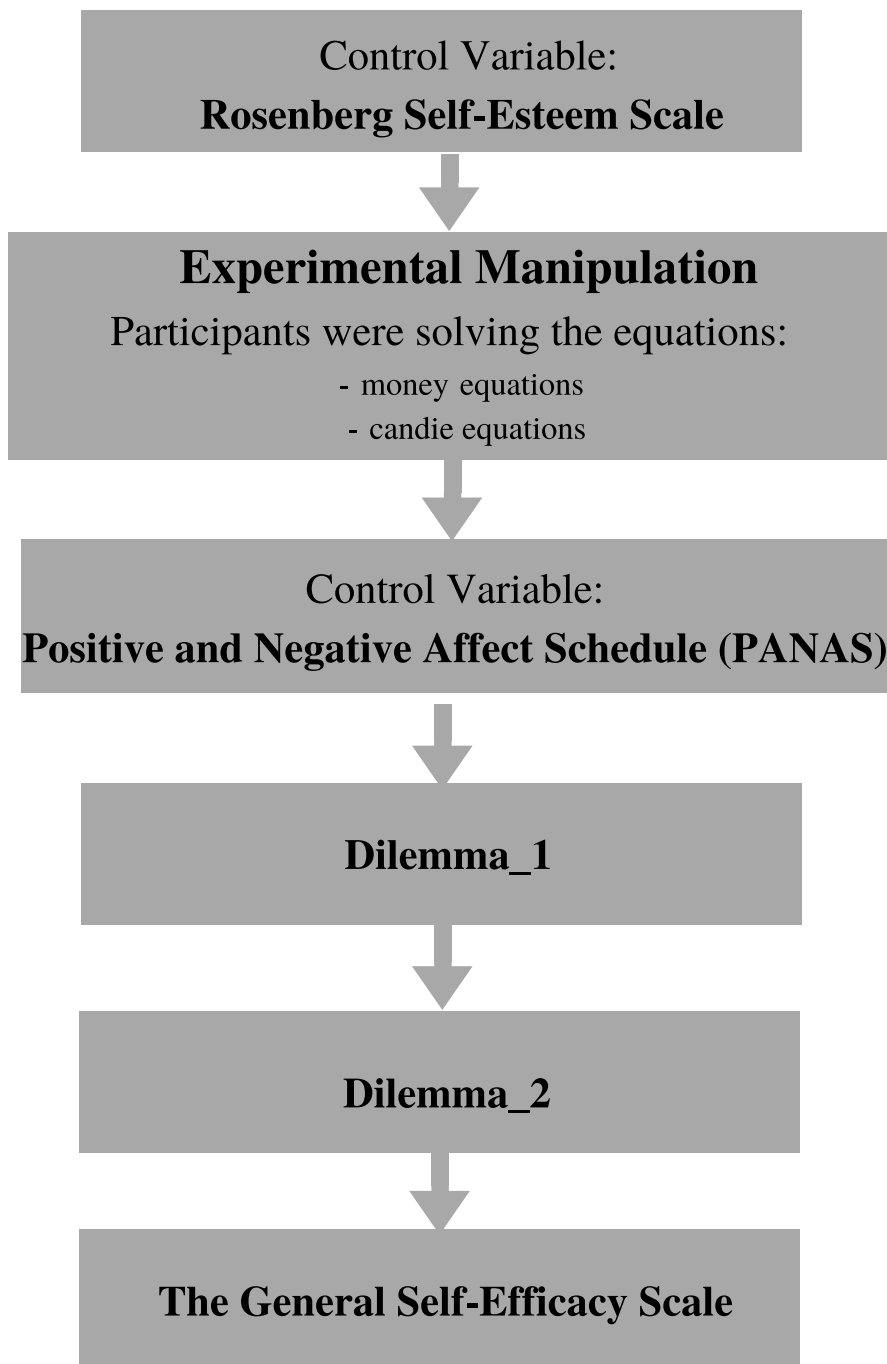
Appendix 5. Table IV. *Values for the answers for the statements from 1 to 6 for Dilemma\_2.*

Statements		M	SE	95% CI	
				LL	UL
1. Despite adversity, I would like to be in charge of this individual project.	Control group	3,85	0,17	3,50	4,19
	Experimental group	4,80	0,16	4,47	5,12
2. Taking this project might be risky, and I enjoy taking risky decisions.	Control group	3,74	0,16	3,42	4,06
	Experimental group	4,86	0,15	4,56	5,16
3. I will convince my boss that taking the project will be additionally after-work occupation.	Control group	4,16	0,17	3,82	4,49
	Experimental group	5,07	0,16	4,74	5,38
4. I will spend as much time as possible to make this project the best.	Control group	4,05	0,18	3,70	4,41
	Experimental group	5,34	0,17	5,00	5,67
5. I will ask Adam (colleague from a different division) for help.	Control group	5,23	0,15	4,93	5,53
	Experimental group	3,08	0,15	2,79	3,37
6. I will try to find other co-workers that will help me with the new task.	Control group	5,21	0,16	4,89	5,53
	Experimental group	3,23	0,15	2,93	3,54

Appendix 6. Table V. *Values of statement 1 to 6 for the Dilemma\_2 in the control and experimental group regarding people with low and high self-esteem.*

Statements		M	SE	95% CI	
				LL	UL
1. Despite adversity, I would like to be in charge of this individual project.	Low self-esteem	4,30	0,17	3,96	4,64
	High self-esteem	4,35	0,16	4,02	4,67
2. Taking this project might be risky, and I enjoy taking risky decisions.	Low self-esteem	4,25	0,16	3,93	4,57
	High self-esteem	4,35	0,15	4,05	4,65
3. I will convince my boss that taking the project will be additionally after-work occupation.	Low self-esteem	4,66	0,17	4,32	4,99
	High self-esteem	4,57	0,16	4,25	4,88
4. I will spend as much time as possible to make this project the best.	Low self-esteem	4,73	0,18	4,38	5,08
	High self-esteem	4,66	0,17	4,33	5,00
5. I will ask Adam (colleague from a different division) for help.	Low self-esteem	3,92	0,15	3,62	4,22
	High self-esteem	4,39	0,15	4,10	4,68
6. I will try to find other co-workers that will help me with the new task.	Low self-esteem	4,13	0,16	3,81	4,45
	High self-esteem	4,32	0,15	4,01	4,62

Figure 1. *Scheme of the questionnaire*



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