

Gender Predicts Intuition In Moral Dilemma

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Abstract

We study questionnaire responses to situations in which sacrificing one life may save many others. We demonstrate gender differences in moral intuitions; male participants are more supportive of the sacrifice than female participants. We investigate a new potential source of the endorsement of the sacrifice: spitefulness. First, we elicit spiteful behavior, using an experimental game with monetary stakes. We demonstrate that spitefulness is sizable: a quarter of the participants behave spitefully. Second, we conduct a regression analysis and find a gender effect on responses even when we control for individual difference in spitefulness. Our finding is important, for instance, for the effective application of punishment. In punishment, we usually weigh present harm to one person with the future benefit of others. Our analysis suggests that males are more effective punishers than females.

1 Introduction

In our paper, we look at responses to moral dilemma – situations in which inflicting harm on one person spares suffering to many others. When investigating such situations, philosophers argue normatively. They typically prescribe that people, when taking action, should produce the best consequences. In a moral dilemma – just like in any decision situation – people should aim to produce the best outcome. Consider, for instance, whether it

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is right to frame an innocent man in order to prevent a dangerous riot.¹ For this situation, philosophers judge that it is right to prevent harm to many by framing a single innocent person.²

Recently, decision-making researchers have started to describe how people choose in representative moral dilemma. Participants are asked to engage in thought experiments in which they respond to a dilemma. Consider again our moral dilemma: “Do you approve to frame an innocent man, not just a mere suspect, in order to prevent a dangerous riot?”. Many people will naturally react to this situation by saying: “It’s wrong to harm someone, and I do not approve to frame an innocent man”. These natural and quick responses to questionnaires inform us about people’s moral intuitions. We believe that people make ethical judgments and decisions on the basis of moral intuitions – their instant feelings of approval or disapproval (Haidt (2001) and (2003)).

This interpretation of the response data makes sense only if we assume that people believe that there is “right” and “wrong”. We study moral judgment descriptively that is we find out what lay people think is “right i.e. allowed, compulsory” and “wrong i.e. forbidden”. We aim to clarify how people distinguish right from wrong.

Eliciting moral intuitions is important if we assume that people make moral choices bottom-up not top-down. We do not contest that people also make top-down moral judgments. To demonstrate this kind of top-down decision-making, researchers sometimes elicit participant’s explicit reasoning. Here, people are assumed to be motivated to adhere to and affirm their moral beliefs in their judgments.³ Some decision-making researcher have argued that moral judgments are central to people’s identity; hence people argue very strongly about transgression to standard behavior, and people display very strong emotions in moral situations. It might very well be the case that

¹We should refer to the story of Prisoner’s Dilemma in which a suspect is framed. We should mention the Eighth Commandment: Thou shalt not bear false witness against your neighbor.

²The school of thought is known as consequentialism. It says that the moral status of an action should be determined based on the outcome it produces; other features of the action, like the actor’s intentions, and the circumstances in which they are undertaken are irrelevant. Utilitarianism is a version of consequentialism. It combines consequentialism with welfarism. Welfarism holds that the goodness of an outcome is ultimately a matter of the amount of individual well-being, counting everyone equally. Hence, utilitarianism is the view that an act is right if and only if it leads to the greatest total amount of well-being.

³Note that there is a link to the literature on the false consensus.

people make principled moral judgment; yet it is implausible that the quick natural responses that are elicited in questionnaire studies are part of the core of people’s identities. We believe that people muddle through life with trade-offs in mind.

We are interested in moral intuitions because law makers, judges, and referendum designers are interested in people’s intuitions.

They raise thorny questions about morality in medicine, war, politics and indeed in everyday life.

In our paper, we are looking at something philosophers found; gender difference in moral intuitions. We elicit natural quick responses to fourteen ethical, hypothetical cases.⁴⁵ We will use the tool set of experimental economics to ask whether gender difference in moral responses are robust to individual differences. We find gender differences in responses to moral questions; male subjects are found to be more prone to endorse the act of sacrificing one life to save many others than female participants. We observe behavior in a simple game with monetary stakes. In the game, the decision-maker is granted a flat payoff of 10 Euros, and – in addition - sets the payoff for another participant – any amount between 0 and 10 Euros. An amount lower than 10 Euros harms the other person and points to spite/competitive preferences. We use a term – spitefulness – but we really look at wide variety of motivations that could produce anti-social behavior. For instance, the Golden Rule which can be found in some form in almost every ethical tradition. The game allows us to identify transgressions to this wide rule. So we are interested in a catch-all proxy that we could use as a control in regression analysis. Hence, we do not try to pin down what motivations produce anti-social behavior.

We find that gender is a determinant of response to the moral intuitions questions even when we control for participant’s spitefulness; male subjects are found to be more prone to endorse the act of sacrificing one life to save

⁴There is no obvious alternative to survey data. Trolley problems are attractive laboratory stimuli. They are easily modifiable. The situations come with a closed-world assumptions. This is a limitation.

⁵As always there is a **debate about the approach**. Utilitarian judgment prescribe a heuristic. In this context, decision-making researchers debate about **rationality** and sometimes argue that people make suboptimal choices and make **cognitive errors**. Alternatively, some researchers discuss motivations like aversion to causing a person’s death in moral dilemma. This means “I might see what is the optimal solution, but I have a strong aversion to cause someone death”. This means we are talking **preferences**. In our paper, we can not settle this dispute about the correct approach.

many others than female participants.

The finding is important because punishment is working as a disciplining device to enhance cooperation. Yet there is also a danger to rely on punishment – there could be over-provision of punishment/anti-social punishment as well. Simon Gaechter’s work documents the existence of sanctioning of people who behave pro-socially; yet, in some of Gaechter’s participant pools, antisocial punishment was strong enough to remove the positive effects of punishment. The paper says that we should go with a male manager not with a female manager because females are just more biased towards inefficient solutions, and they are not because they are less spiteful than man. And this is not because men are more spiteful than women. Note that our conclusion is important for other reasons as well. Consider a downturn in business – some people are fired off, others are not. The alternative would be to cut wages across the workforce. Consider a situation where a business engages in unethical behavior. If unethical behavior is exposed, some are hurt.

2 Experimental Design

We conducted the sessions at the experimental economics laboratory of University Paris 1, LEEP. We had 12 sessions, each had between 10 and 20 participants. From the LEEP’s database, we recruited participants who had completed the LEEP’s registration process. We stratified the sampling to assure balance with 99 female and 99 male participants. The participant’s average age was 24. The majority of participants had previously taken part in an experiment at LEEP. Roughly four-fifth of the participants were still enrolled in university studies. For recruitment, we used the software ORSEE (Greiner (2004)). For the sessions, we used the software Regate (Zeilinger (2000)). In the session, we asked participants to complete two experimental tasks. Participants played a game – its outcome determined participant’s money gains –, and answered a moral-intuition questionnaire – 14 questions that respond to 14 moral dilemma. We accounted for potential order effects in two ways. In six sessions, play of the game was followed by completion of the questionnaire. In the other six sessions, the order was reversed. Furthermore, the presentation of the 14 dilemmas was counterbalanced across sessions.

At the beginning of each session, instructions were distributed and read

aloud. Furthermore, participants were informed that additional instructions would be displayed on their computer screens later on. All instructions and questions, translated from French into English, are available as supplementary material (appendix).

2.1 Moral-Intuition Questionnaire

We elicit participant's response to 14 hypothetical cases. We are interested in quick, natural replies and we are not concerned with explicit moral reasoning. We have drawn our 14 dilemma from Bartels (2008). Below we show a typical situation – the Trolley Dilemma –, and we present the kind of response we elicited.

The Trolley Dilemma:

In the path of a runaway train car are five railway workmen who will surely be killed unless you, a bystander, do something. You are standing on a pedestrian walkway that arches over the tracks next to a large stranger. Your body would be too light to stop the train, but if you push the stranger onto the tracks, killing him, his large body will stop the train.

In this situation, would you push the man?

Please, indicate your answer by ticking a box on the scale displayed below (the leftmost box corresponds to the strongest disapproval, the rightmost box corresponds to the highest approval):

NO ☐ -2 ☐ -1 ☐ -1 ☐ -2 ☐ YES

We call the integers approval points. The integer -2 shows the strongest disapproval of the sacrifice. The integer 2 shows the strongest approval. The dilemma situations were presented one by one.

2.2 Experimental Game

Two players, A and B, play a simple game. Player A's payoff is 10 Euros. Player A chooses player B's payoff by picking an integer between 0 and 10 Euro. Player B takes no decision. In our sessions, pairs of participants were formed. Each participant made a decision as an Player A. A random draw

Transferred Amount (in Euros)	0	1	2	3	4	5	6	7	8	9	10	Σ
Number Of Choices By Females	0	1	0	1	1	7	2	1	8	4	74	99
Number Of Choices By Males	0	1	0	1	1	11	0	1	1	2	81	99
Total Number Of Choices	0	2	0	2	2	18	2	2	9	6	155	198

Table 1: Distribution Of Transfers In the Experimental Game

at the end of the session determined participant’s actual roles and actual payoffs. In addition, each participant received a show-up fee of 5 Euros.⁶

3 Results

Player A chooses player B’s payoff in the game. We call this payoff the transferred amount. Table 1 shows the distribution of transfers, for female participants, for male participants and for the total sample.

Finding 1 (Frequency Of Spiteful Transfers)

22% of the participants choose a transfer less than the maximal transfer.

Support Table 1, row 4 shows the overall frequency of transfers. Most participants (155) select the maximal transfer, 10. A sizable fraction of the participants select lower amounts; the most frequent among those are 5 (18 participants), 8 (9) and 9 (6).

Finding 2 (No Gender Difference In Transfers)

We accept the null hypothesis that the distribution of transfers are equal for male participants and female participants.

Support Table 1, row 2 shows the overall frequency of transfers for female participants. Table 1, row 3 shows the overall frequency for male participants. A Wilcoxon rank-sum test of no difference of the distributions shows $p = 0.347$. Figure 1 shows a histogram of the overall frequency of transfers., for female participants, for male participants, and for all participants.

⁶We employed this procedure to collect data on a decision of each participant. Note that this procedure makes it plain that each participant’s choice could affect another participant’s payoff.

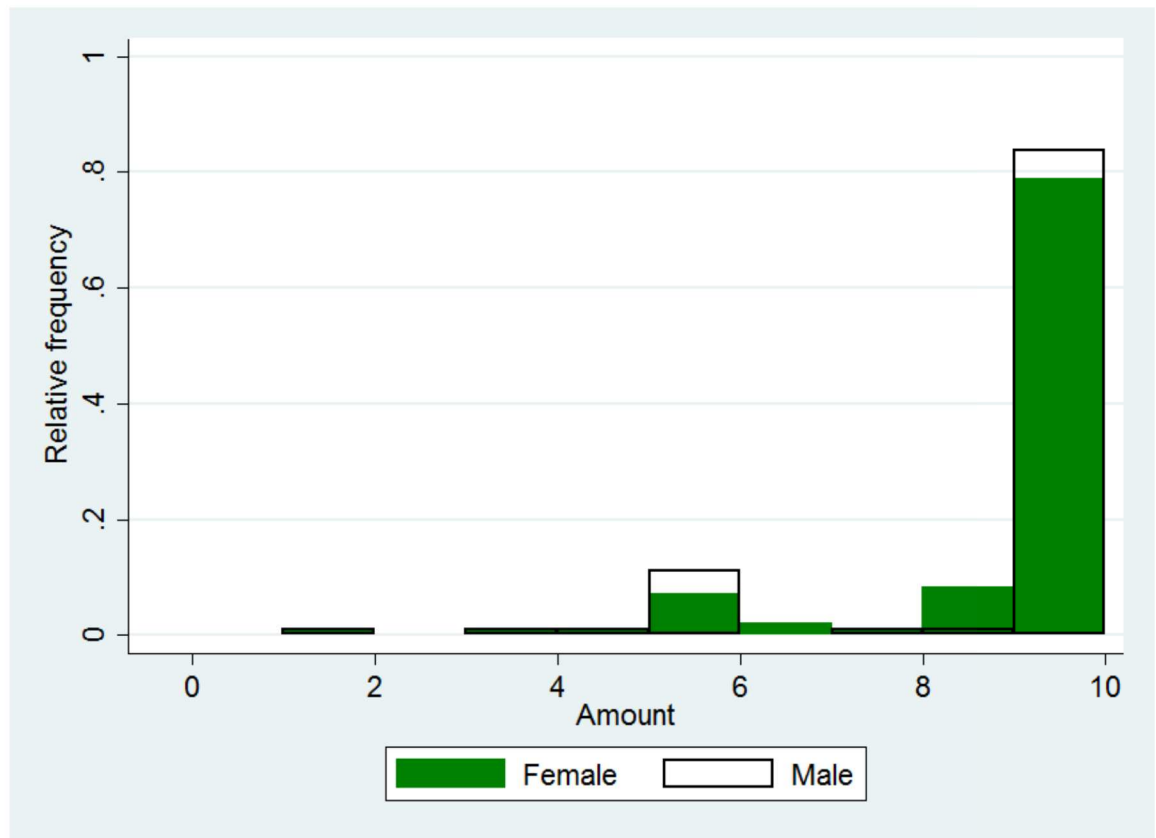


Table 2 shows the average approval points for the 14 moral situations, separate for male participants and for female participants. In addition, the table shows the average score for the total sample.⁷

Finding 3 (Gender Difference In Intuitions)

We reject the null hypothesis that the distribution of moral intuitions for male participants and female participants are equal.

⁷Some researchers have sought to explain what accounts for the flexibility people exhibit when dealing with these cases.

Several explanations have been afforded for what underlies discrepant responses across versions of the trolley problem.

- 1) Dual process morality ... cognitive process —> welfare maximising.
automatic emotional responses —> deontological rules.
- 2) Moral grammar.

Type Of Dilemma	Average Score		p value		Average Score Both Male and Female
	Female	Male			
<i>Submarine</i>	-0.071	0.535	0.004 ^a	0.004 ^a	0.232
<i>Trespassers</i>	-1.222	-0.707	0.011 ^b	0.009 ^a	-0.965
<i>Hostages</i>	-0.606	-0.030	0.024 ^b	0.012 ^b	-0.318
<i>Bystander</i>	0.394	0.828	0.008 ^a	0.036 ^b	0.611
<i>Life raft</i>	0.222	1.010	<0.001 ^a	0.001 ^a	0.616
<i>Plane crash</i>	-1.586	-1.404	0.119	0.198	-1.495
<i>Prisoners of war</i>	-0.010	0.202	0.273	0.350	0.096
<i>Fumes</i>	0.121	0.636	0.010 ^b	0.010 ^a	0.379
<i>Spelunkers</i>	-0.596	0.253	<0.001 ^a	0.001 ^a	-0.172
<i>Soldiers</i>	0.222	0.485	0.149	0.243	0.354
<i>Surgery</i>	-1.818	-1.455	0.003 ^a	0.003 ^a	-1.636
<i>Derailment</i>	-0.222	0.061	0.217	0.188	-0.081
<i>Footbridge</i>	-1.606	-1.576	0.553	0.818	-1.591
<i>Baby</i>	-0.869	-0.172	0.002 ^a	0.001 ^a	-0.520
Average Over Type Of Dilemma	-0.546	-0.095	<0.001	0.001 ^a	-0.321

Table 2: Points Of Approval For Sacrifice In The Moral-Intuition Questionnaire; N=198. Range Of Approval Points -2 (strongest disapproval), -1, 1, 2 (strongest approval). p values From Wilcoxon Rank-Sum Tests.

Support Table 2, column 4 shows the p values of the test of no difference of the distribution of approval points for female participants and male participants for each of the 14 situations. Male participants declare support for the sacrifice different from the female participants; in 9 out of 14 situations, the difference is significant at the 5% level with a Wilcoxon rank-sum test (and with t -test as well).

Table 2, last row and last column shows the p values of the test of no difference of the distribution of overall approval points for female participants and male participants. Male participant average score is not equal to female participant average score; the Wilcoxon rank-sum test shows a highly significant difference $p < 0.001$.

Table 3 shows 15 regression results. In 14 regressions, the dependent variable is a participant's points of approval. Each of the 14 regressions corresponds to a situation. For the 15th regression, the dependent variable is participant's overall average points of approval. The key explanatory variable is an indicator variables $1[Male]$ that is 1 for males and 0 for females (β_3). The controls are $1[TRANSFER < 10]$ that is 1 if the participant chose to transfer less than 10 and 0 otherwise (β_1), $1[TRANSFER < 10] \times TRANSFER$ (β_2), and $1[GAME FIRST]$ if the game was followed by the questionnaire, 0 otherwise (β_4).

Finding 4 (Gender Effect On Intuitions)

We find a gender effect in moral intuitions even when we control for the transfer.

Support Table 3 shows the regression output for the 14 individual regressions in a separate panel. We present the estimated coefficients for the male indicator variable and the corresponding p value. In 8 out of 14 situations, the male indicator variable is significant at the 5% level. Table 3 also shows the overall regression in the panel to the lower right; the male indicator variable is highly significant at the 1% level.

In the average-points-of-approval regression, the controls $[TRANSFER < 10]$ and $1[TRANSFER < 10] \times TRANSFER$ are individually and jointly insignificant. In the Plane-Crash regression, the controls $[TRANSFER < 10]$ and $1[TRANSFER < 10] \times TRANSFER$ are individually and jointly sig-

<i>Type Of Dilemma</i>		<i>est.</i>	<i>p</i>	<i>est.</i>	<i>p</i>	<i>est.</i>	<i>p</i>	<i>est.</i>	<i>p</i>
		<i>Submarine</i>		<i>Trespassers</i>		<i>Hostages</i>		<i>Bystanders</i>	
Intercept	β_0	0.226	0.227	-1.252 ^a	0.000	-0.691 ^a	0.001	0.292	0.120
1[Amount<10]	β_1	0.606	0.378	0.674	0.304	0.009	0.991	-0.177	0.797
_____× Amount	β_2	-0.121	0.260	-0.091	0.371	0.027	0.819	0.096	0.371
1[Male]	β_3	0.585 ^a	0.005	0.501 ^b	0.012	0.592 ^b	0.011	0.486 ^b	0.021
1[Game first]	β_4	-0.532	0.011	0.019	0.925	0.080	0.725	-0.022	0.916
$H_0 : \beta_1 = \beta_2 = 0$		—	0.477	—	0.580	—	0.806	—	0.194
R^2		0.081	—	0.040	—	0.035	—	0.039	—

<i>Type Of Dilemma</i>		<i>Life raft</i>		<i>Plane Crash</i>		<i>Prisoners Of War</i>		<i>Fumes</i>	
Intercept	β_0	0.237	0.203	-1.685 ^a	0.000	-0.054	0.794	0.016	0.935
1[Amount<10]	β_1	0.635	0.353	1.499 ^a	0.001	-0.075	0.922	0.625	0.385
_____× Amount	β_2	-0.055	0.606	-0.206 ^a	0.004	0.031	0.797	-0.047	0.675
1[Male]	β_3	0.802 ^a	0.000	0.147	0.294	0.226	0.328	0.526	0.017
1[Game first]	β_4	-0.180	0.380	0.122	0.379	0.027	0.906	0.051	0.812
$H_0 : \beta_1 = \beta_2 = 0$		—	0.410	—	0.012	—	0.897	—	0.388
R^2		0.083	—	0.064	—	0.006	—	0.038	—

<i>Type Of Dilemma</i>		<i>Spelunkers</i>		<i>Soldiers</i>		<i>Surgery</i>		<i>Derailment</i>	
Intercept	β_0	-0.776 ^a	0.000	0.298	0.145	-1.864 ^a	0.000	-0.311	0.110
1[Amount<10]	β_1	0.276	0.692	-0.050	0.947	0.687 ^c	0.087	1.002	0.161
_____× Amount	β_2	0.001	0.996	0.042	0.719	-0.062	0.323	-0.181	0.105
1[Male]	β_3	0.861 ^a	0.000	0.296	0.195	0.373 ^a	0.002	0.225	0.299
1[Game first]	β_4	0.230	0.272	-0.278	0.218	-0.056	0.643	0.276	0.197
$H_0 : \beta_1 = \beta_2 = 0$		—	0.546	—	0.715	—	0.059	—	0.260
R^2		0.090	—	0.018	—	0.073	—	0.031	—

<i>Type Of Dilemma</i>		<i>Footbridge</i>		<i>Baby</i>		<i>Pooled Over Dilemma Type</i>	
Intercept	β_0	-1.638 ^a	0.000	-0.991 ^a	0.000	-0.585 ^a	0.000
1[Amount<10]	β_1	0.169	0.702	0.716	0.307	0.471	0.180
_____× Amount	β_2	-0.026	0.709	-0.086	0.432	-0.048	0.376
1[Male]	β_3	0.023	0.864	0.685 ^a	0.001	0.452 ^a	0.000
1[Game first]	β_4	0.067	0.614	0.172	0.412	-0.002	0.988
$H_0 : \beta_1 = \beta_2 = 0$		—	0.928	—	0.535	—	0.247
R^2		0.002	—	0.063	—	0.099	—

Table 3: Regression Results; Dependent Variable Is Points Of Approval, One For Each Of The 14 situations. For The Model In The Bottom Right Panel, The Dependent Variable Is Average Points Of Approval, Across The 14 Situations. Superscript *a* Denotes $p < 0.01$, Superscript *b* Denotes $p < 0.05$, And Superscript *c* Denotes $p < 0.10$.

nificant.⁸ In the 13 other individual regression, the controls $[TRANSFER < 10]$ and $1[TRANSFER < 10] \times TRANSFER$ are individually and jointly insignificant at the 5% level.

4 Discussion

5 Conclusions

Our contributions are three-fold. First, we have conducted a questionnaire that allows us to measure moral intuitions in fourteen well-studied five-life-for-one situations in which inflicting harm on one person spares suffering to many others. We have demonstrated that male participants are more supportive of the sacrifice than female participants. Second, we have investigated a transfer game; an advantaged player simply decides on the payoff of the disadvantaged player while her payment is held constant. This experimental game allows us to identify individual violations of a wide moral rule; the Golden Rule prohibits harm to others due to anti-social motivations like spite. We find that at a quarter of participants transfer less than the maximum, and that male participants and female participants behave spitefully in equal proportion. Third, we have combined our data on decisions with our data on intuitions. We find – robustly across several dilemma, and highly significantly overall – that female participants approve less of a sacrifice than do male participants even when we control for individual difference in anti-social motivation in the regression analysis.

Our finding matters for a number of reasons. Consider punishment. Punishment is an effective device to discipline opportunistic behavior in interactions (Fehr and Gaechter 2000). In punishment, one has to weigh present harm to one person with the future benefit of others. Our analysis suggests that men are better enforcers of societal goals than women; men are more prone to harm one for the benefit of others, and men are so not because they are more spiteful (Croson and Gneezy JEL 2009).

⁸The estimated marginal effect is $\hat{\beta}_1 + \hat{\beta}_2 \cdot AMOUNT = 1.499 + (-2.06) \cdot AMOUNT$. For instance, if a participant choose transfer of 5 instead of transfer of 10, the predicted increase in approval points is 0.469. For instance, if a participant choose transfer of 9 instead of transfer of 10 the predicted decrease in approval points is 0.355. The model predicts an increase in approval points in 2/3 of the actual cases.

In the regression analysis on moral intuitions we used a behavioral proxy for anti-social behavior as a control. The purpose of the proxy is to capture an wide array of anti-social motivations. In future research, another experimental game could be used to distinguish motives of anti-social behavior like indifference, spitefulness or competitive preferences. We are pursuing this inquiry in a follow-up paper.

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6 Appendix

In each session, participants answered a **standard questionnaire** that elicited demographic information. In addition, participants played an **experimental game** and answered a **moral-intuition questionnaire**. Below we present the paper instructions (subsection 1), describe the instructions displayed on the participant’s computer screens (subsection 2), and present the moral-intuition questionnaire (subsection 3).

6.1 Instructions On Paper

You are about to take part in an experiment in which you can earn money. Your gains may depend on the decision made by another participant. Before we begin we would like you to answer a few standard questions concerning your age, education, profession, etc.. These questions will help us to get to know the participants better. Your identity as well as the your money gains from these sessions will remain confidential and anonymous.

[Participants filled out the standard questionnaire.]

Thank you for answering the questions.

WHAT HAPPENS IN THE EXPERIMENT

The experiment consists of two separate parts. In the first part, **Part 1**, we will determine your payment in the experiment. In the second part, **Part 2**, you will be asked to answer a set of questions that will allow us to learn about you. Further instructions will be displayed on your screen before the beginning of each part.

PAYMENT OF YOUR EARNINGS

Your total payment will be the payoff you earn in Part 1 and a bonus of 5 Euro for completing the session. Payments are made individually and in cash.

You are not allowed to talk during the experiment. Participants who violate this rule will be excluded from the experiment and payments. It is important that you perfectly understand the rules of this experiment. Should you have any questions, please raise your hand.

Thank you again for your participation.

6.2 Computer Screen

Experimental Game – Screen 1

In this part of the experiment, your additional payment will be determined. A game has two players: player A and player B. **Only player A takes a decision, and this decision affects player B's payoff alone.**

You will be paired randomly with another participant. You will then be asked about the decision you would take as player A. Finally, **at the end of experiment, a random draw will determine your actual role** in the pair. If you were player A, your decision were to determine the other group member's payoff. If you were player B, your payoff were to be determined by player A.

Experimental Game – Screen 2

The game is played by two persons, player A and player B, and runs as follows.

Player A's payoff is fixed and equal to 10 Euros. Player A decides about player B's payoff. More precisely, player A selects an amount between 0 and 10 Euros which is then transferred to player B. Player A's choice does not affect her own payoff. Player B makes no decision and her payoff corresponds to the amount attributed by player A.

Suppose you are player A. Which amount would you like to choose for player B?

[Participants entered choice using the computer's keyboard.]

6.3 Moral-Intuitions Questionnaire

In this part we ask you to answer a few questions. The answers will enable us to learn about some of your characteristics. We remind you that we are not able to link your answers with your identity.

[Participants used a computer mouse to tick a box aligned with a scale—2, -1, 1, 2. The leftmost box represented the strongest disapproval and the rightmost box

corresponded to the highest approval. We counterbalanced the presentation of the 14 dilemma across sessions.]

1. Submarine (Greene et al 2001)

You are the captain of a small military submarine traveling underneath a large iceberg. An onboard explosion has dramatically decreased the oxygen supply and has injured a member of the crew. He may die from his injuries. The remaining oxygen is not sufficient for the entire six-man crew to make it to the surface. If you shoot the injured crewmember, there will be just enough oxygen for everyone else to survive.

In this situation, would you shoot the crewmember?

2. Trespassers (Greene et al 2001)

You and a group of friends are backpacking, and while crossing a rocky plain in the Guatemalan highlands, you inadvertently camp on a local clan's burial ground. The leader of the clan says that his clan's laws command him to kill all six of you as a sacrifice to the gods, but that if you kill one of your own, the gods will be appeased, and the rest will be let go.

In this situation, would you kill one of your friends?

3. Hostages (Greene et al 2001)

You are traveling with five other peace advocates in a war-torn country when your group is taken hostage by a group of terrorists. After a week, the terrorists' demands have not been met, and they offer you a choice: either they will kill all of you, or if you execute one of your fellow hostages, you and the others are free to go.

In this situation, would you execute one of your fellow hostages?

4. Bystander (Foot 1967)

In the path of a runaway train car are five railway workmen who will surely be killed unless you, a bystander, do something. If you flip a switch, the train will be diverted onto another track, where it will kill a single railway workman.

In this situation, would you flip the switch?

5. Liferaft (Regan 1983)

You are on a small ship, a fire breaks out, and the ship has to be abandoned. Because your tiny liferaft is carrying more than its capacity, it is sitting dangerously low in the water. The seas get rough and the raft begins to fill with water. Unless you do something, all six of you will drown. There is an injured person onboard who may die either way. If you throw him overboard, everyone else will be saved.

In this situation, would you throw him overboard?

6. Plane Crash (Marshall 1993, Greene et al 2001))

Your plane has crashed in the Himalayas. The only survivors are you, some other men, and a young boy. The six of you travel for days, battling extreme cold and wind. Your only chance of survival is to make it to a village a few days away. The boy cannot move very quickly. Without food, you and the other men will surely die. One of the men suggests killing the boy and eating his remains over the next few days.

In this situation, would you sacrifice the boy?

7. Prisoners Of War (Baron 1992)

You and some other soldiers were captured. After a year in a prison camp, your group tried to escape but was caught. The warden has decided to hang your group in front of the other prisoners of war. At the gallows, he releases the noose from your neck and announces that if you pull the chair from underneath one man in your group, the remaining five will be set free, otherwise you all die. He means what he says.

In this situation, would you remove the chair?

8. Fumes (Thompson 1986)

You are the late-night watchman in a hospital where an accident has occurred in one of the on-site testing labs, and now there are deadly fumes rising up through the hospital's ventilation system. The fumes are headed to a certain area where there are five patients who will surely die. If you flip a switch, the ventilation system will cause the fumes to bypass this room and enter a room containing a single patient, killing him.

In this situation, would you flip the switch?

9. Spelunkers (http://news.bbc.co.uk/2/hi/uk_news/magazine/4954856.stm)

You and five others are exploring a seashore cave. A rock falls and blocks your exit. The tide is rising. You spot a hole elsewhere and let a large man in your group out first. He gets stuck, and unless you get out soon, everyone but this man (whose head is sticking out of the cave) will drown. You have a stick of dynamite that will not move the rock, but will blast the man out of the hole. He does not want to die; neither do you or the others.

In this situation, would you blast him out?

10. Soldiers (Greene et al 2001)

You are leading a group of soldiers returning from a completed mission in enemy territory when one of your men steps in a trap. He is injured, and the trap is connected to a device that alerts the enemy to your presence. If the enemy finds your group, all six of you will die. If you leave him behind, he will be killed, but the rest of the group will escape safely.

In this situation, would you leave him behind?

11. Surgery (Foot 1967)

You are a surgeon with a number of patients. Five of them need organ transplants. Each of them needs a different organ or they will surely die. You have another patient who is healthy and would be an ideal organ donor for the others. If you transplant his organs (against his will) into the bodies of the other patients, they will live but he will die.

In this situation, would you perform this transplant?

12. Derailment (Unger 1996)

In the path of a runaway train car are five railway workmen who will surely be killed unless you, a bystander, do something. If you flip a switch, the train will be diverted onto a set of tracks in need of repair. The train will be derailed and go down a hill, across a road, and into a man's yard. The owner, sleeping in his hammock, will be killed.

In this situation, would you flip the switch?

13. Footbridge (Thompson 1985)

In the path of a runaway train car are five railway workmen who will surely be killed unless you, a bystander, do something. You are standing on a pedestrian walkway that arches over the tracks next to a large stranger. Your body would be too light to stop the train, but if you push the stranger onto the tracks, killing him, his large body will stop the train.

In this situation, would you push the man?

14. Baby (Alda et al 1983, Greene et al 2001)

Enemy soldiers have taken over your village and will kill all remaining civilians. You and five others are hiding in the cellar of a large house. Soldiers have come to search the house for valuables. A baby in your group begins to cry. So, you cover her mouth, but she cannot breathe. If you remove your hand, the baby can breathe, but her crying will summon the soldiers who will kill everyone in the cellar.

In this situation, would you smother the baby?