

# What Norms Trigger Punishment? - Instructions (One Way Treatment)

You have been asked to participate in an experiment. For participating today and being on time you have been paid \$5. You may earn an additional amount of money depending on your decisions in the experiment. This money will be paid to you, in cash, at the end of the experiment. When you click the BEGIN button you will be asked for some personal information. After everyone enters this information we will start the instructions for the experiment.

Please be patient while others finish entering their personal information. The instructions will begin shortly.

During the experiment we will speak in terms of Experimental Monetary Units (EMUs) instead of Dollars. Your payoffs will be calculated in terms of EMUs and then translated at the end of the experiment into dollars at the following rate: 30 EMUs = 1 Dollar.

In addition to the \$5.00 show-up fee, each participant receives a lump sum payment of 15 EMUs at the beginning of the experiment.

The experiment is divided into 10 different periods. In each period 8 participants are divided into two groups of 4. The composition of the groups will remain the same for the entire experiment. Therefore, in each period your group will consist of the same four participants.

Each period of the experiment has three stages.

## Stage One

At the beginning of every period each participant receives a 25 EMU endowment. In Stage One each of you will decide how much of the 25 EMUs to contribute to a group project and how much you want to keep for yourself. You are asked to contribute whole EMU amounts (i.e. a contribution of 5 EMUs is alright, but 3.85 should be rounded up to 4). Your payoff and the payoff of everyone else in your group will be determined by how much each member contributes to the group project and how much each member keeps.

To record your decision, you will type EMU amounts in two text-input boxes, one for the group project labeled GROUP ALLOCATION and one for yourself labeled PRIVATE ALLOCATION. These boxes will be yellow. Once you have made your decision, there will be a green SUBMIT button that will record your decision.

After all the participants have made their decisions, each of you will be informed of your gross earnings for the period.

GROSS EARNINGS

Your Gross Earnings will consist of two parts:

1) Earnings from your Private Allocation. You are the only beneficiary of EMUs you keep. More specifically, each EMU you keep increases your earnings by one.

2) Earnings from the Group Project. Each member of the group gets the same payoff from the group project regardless of how much he or she contributed. The payoff from the group project is calculated by multiplying 0.5 times the total EMUs contributed by the members of your group.

Your Gross Earnings can be summarized as follows:

$$1 \times (\text{EMUs you keep}) + 0.5 \times (\text{Total EMUs contributed by your group})$$

Let's discuss three examples.

Example 1: Say each member of your group contributes 15 of their 25 EMUs. In this case, the group total contribution to the project is  $4 \times 15 = 60$  EMUs. Each group member earns  $0.5 \times 60 = 30$  EMUs from the project. The gross earnings of each member will then be the number of EMUs kept,  $25 - 15 = 10$ , plus the earnings from the group project, 30 EMUs, for each member. Hence, each member would earn  $10 + 30 = 40$  EMUs.

Example 2: Now say everyone in the group contributes 5 EMUs. Here the group total contribution will be 20 and each member will earn  $0.5 \times 20 = 10$  EMUs from the group project. This means that the total earnings of each member of the group will be 20 (the number of EMUs kept) plus 10 (earnings from the group project) which equals 30 EMUs.

Example 3: Finally, say three group members contribute all their EMUs and one contributes none. In this case, the group total contribution to the project is  $3 \times 25 = 75$  EMUs. Each group member earns  $0.5 \times 75 = 37.5$  EMUs from the project. The three members who contributed everything will earn  $0 + 37.5 = 37.5$  EMUs and the one member who contributed nothing will earn  $25 + 37.5 = 62.5$  EMUs.

## Stage Two

In stage two you will be shown the allocation decisions made by all the other participants, and they will see your decision. Also at this stage you will be able to reduce the earnings of other participants, if you want to, and the other participants will be able to reduce your earnings. You will be shown how much each member of your group kept and how much they allocated to the group project. You will also be shown how much each member of the other group kept and how much they contributed to their group project. Your allocation decision will also appear on the screen and will be labeled 'YOU'. Please remember that the composition of your group remains the same during each period and therefore every person in your group during this period will also be in your group next period.

At this point you will decide how much (if at all) you wish to reduce the earnings of the other participants. You reduce someone's earnings by typing the number of EMUs you wish to spend to reduce that person's earnings into the input-text box that appears below that participant's allocation decision.

For each EMU you spend you will reduce the earnings of the other participant by 2 EMUs. You can spend as much of your accumulated earnings as you wish to reduce the earnings of the other participants.

The two groups participating in this experiment have different opportunities to reduce the earnings of other participants. If you are in Group A you will be able to reduce the earnings of everyone participating in this session. That is, you will be able to reduce the earnings of other members of your group AND you will be able to reduce the earnings of the members of Group B. However, if you are in Group B you will only be able to reduce the earnings of the other participants in your group. The computer will inform you what group you are randomly assigned to when it comes time to make these reduction decisions.

Consider this example: suppose you are in Group A and spend 2 EMUs to reduce the earnings of a participant in the other group, you spend 9 EMUs reducing the earnings of a participant in your group, and you don't spend anything to reduce the earnings of the remaining participants. Your total cost of reductions will be  $(2+9+0)$  or 11 EMUs. When you have finished you will click the blue DONE button.

How much a participant's gross earnings are reduced is determined by the total amount spent by all the other participants in the session. If a total of 3 EMUs is, then this person's earnings will be reduced by 6 EMUs. If the other participants spend 4 EMUs in total, the person's earnings would be reduced by 8 EMUs, and so on.

### Stage Three

In stage three, you will be shown the total EMUs spent on reductions by each other participant. You will then be able to spend an additional amount of money to reduce the earnings of the other participants, if you choose to do so.

Again, for each EMU you spend you will reduce the earnings of the other participant by 2 EMUs. You can spend as much of your accumulated earnings as you wish to reduce the earnings of each of the other participants. When you have finished click the blue DONE button.

Nobody's earnings will be reduced below zero by the other participants. For example, if your gross earnings were 40 EMUs and the other participants spent 50 EMUs to reduce your earnings, your gross earnings would be reduced to zero and not minus sixty.

Your NET EARNINGS after the third stage will be calculated as follows:

(Gross Earnings from Stage One) -  $(2 \times \text{the Number of EMUs spent on reductions directed towards you})$  - (your expenditure on reductions directed at other participants).

If you have any questions please raise your hand. Otherwise, click the red FINISHED button when you are done reading.

This is the end of the instructions. Be patient while everyone finishes reading.