

## Experimental Instructions (translated from the Hebrew original)

### 1. Instructions for Group Treatment:

#### Experiment in Decision-Making

This is an experiment in group decision-making. During the experiment, you will make decisions and the other participants will do so as well. Your decisions and those of the others will determine the payment that you will receive according to rules that we will explain later on.

**You will be paid in cash at the end of the experiment, exactly as the rules say.**

Your income during the experiment will be measured in **Francs**. Your income in **NIS** [New Israeli Sheqalim] will be determined at the exchange rate of 40 Francs per 1 NIS.

The experiment will be conducted by means of computer. All decisions that you make during the experiment will be implemented by keying appropriate commands.

**Please remain totally silent during the experiment and do not speak with the other participants. Turn off your cell phones. If you have a question of any kind, raise your hand and one of the supervisors will come over to you.**

---

At this time, we wish to explain the rules that determine how much you will be paid in this experiment. At the end of the explanation stage and before the experiment itself begins, you will be asked to answer several questions that are meant to make sure that you understand the rules of the experiment clearly. Your answers to these questions will not affect the payments that you will receive at the end of the experiment. We will begin the experiment only after all participants understand the rules clearly.

There will be 18 participants in the experiment.

#### Placement in Groups

The experiment examines decision-making in groups. The group in which you have been placed was determined by your major field of studies at the University; all other members of your group are majoring in similar fields.

The participants in this experiment come from two groups: students of the Faculty of the Humanities and students of the Faculty of Social Sciences. (Students whose majors include departments in both faculties are not taking part in the experiment.) The two groups are identical in size and include nine participants each.

Note that since the composition of the groups was determined by the participants' majors, it will be *constant* throughout the experiment.

#### Decision-Making

In the course of the experiment, you will be asked to make several decisions. The decisions that you make will determine the payments that you, the members of your group, and the members of the second group will receive at the end of the experiment.

The experiment will include 40 rounds. At the beginning of each round, the computer will determine randomly the total income of each group and the "gross" income of each participant in this round. A participant's income in a certain round may range from 10 Francs to 150 Francs. The computer will inform each participant about his or her gross income in this round. Each participant will also receive information about the following:

EXPERIMENTAL INSTRUCTIONS:  
I. GROUP TREATMENT

- \* the average income in his or her group in this round;
- \* the average income in the second group in this round;
- \* the average income of all participants in the experiment in this round.

**After receiving the information about incomes in this round, you will be asked to make a decision.**

The decision is a choice between two proposed tax rates (for example 20 percent or 40 percent). One of these rates, the one that is chosen, will be imposed on the incomes of all participants in this round. The tax rate is determined by elections; the rate that receives a majority of votes is the winner in the elections. In the event of a tie, the computer will determine the winning tax rate at random (by a draw).

**The tax rate that wins the elections will be imposed on the gross income of all participants in the experiment (from both groups). The revenue collected from the participants are the tax receipts. After the computer collects these taxes, all the tax receipts from this round will be distributed equally to all participants in the experiment as a “bonus.”**

**For example**, say that in a given round the tax rate chosen in the elections is 10 percent. In this case, each participant whose gross income in this round was 100 Francs will pay 10 Francs in taxes. Other participants whose gross income in this round was 20 Francs will pay a tax of 2 Francs. However, all participants will receive **the same bonus**, equal to the total tax receipts—gathered from all participants—divided by the number of participants.

Say that the total income of the participants in this round is 1080 Francs. The computer will collect 10 percent of this sum from all participants as tax receipts in this round (108 Francs) and each participant will receive an equal portion of the tax receipts, in this case:  $108 / 18 = 6$  Francs.

Thus, the final income in this round of the participants whose gross income was 100 Francs is 96 Francs ( $100 - 10 + 6 = 96$ ).

The final income in this round of participants whose gross income was 20 Francs is 24 Francs ( $20 - 2 + 6 = 24$ ).

After receiving the information about incomes in this round, the screen will show the two proposed tax rates: 20 percent and 40 percent. You will have to decide which rate to vote for. As stated, the rate that receives a majority of votes from participants in this round of the experiment will be applied to the gross incomes of all participants in this round. In the event of a tie, the computer will determine the winning rate at random, with each rate having an equal likelihood of being chosen.

The first round ends when all participants, in both groups, finish voting and the computer applies the chosen tax rate to their income. Round 2 will take place on the basis of the same rules as Round 1, and so on until the last round.

**You will be given details about the results of the voting in each round only at the end of the experiment.**

Note that in each round a new draw is held for the gross income of the two groups and their members. The participants vote only for the tax rate to be applied to the income from this round. In the next round, the computer holds a new draw for the gross income of the groups and of each participant, and the tax rate to be applied to this income is chosen all over again.

After the last round of voting is over, you will be asked to fill in a brief questionnaire. This will mark the end of the experiment.

At the end of the experiment, each participant's computer screen will show him or her the detailed results of the voting in all 40 rounds. At this stage, the computer will add up the total

EXPERIMENTAL INSTRUCTIONS:

1. GROUP TREATMENT

Francs that you have accumulated in all the rounds of the experiment. Each participant will receive a notice with details on the following:

- \* his or her net income in all rounds of the experiment (i.e., the *final* tally of income from all rounds, after subtraction of tax payments and addition of bonuses in each and every round);
- \* the average income of his or her group (net, from all rounds in the experiment);
- \* the average income of the second group (net, from all rounds in the experiment).

**As mentioned above, at the end of the experiment we will pay you the full sum that you accumulated in cash, at the exchange rate of 1 NIS for every 40 Francs.**

The payments at the end of the experiment will be made in private; you do not have to tell anybody how much you earned.

EXPERIMENTAL INSTRUCTIONS:  
I. GROUP TREATMENT

The following example is meant to make sure that the rules of the experiment—how the taxes are calculated and collected and how the bonus is distributed—are clear to you. During the experiment, you will not have to make these calculations yourself; the computer will do it for you.

To save time, the example is based on two groups of three participants each. (As stated, in the actual experiment there will be two groups of nine participants each.)

**Example 1:**

The table below shows the income data of possible participants in a certain round. **Say that the tax rate that the participants chose in this round is 20 percent.**

	Gross income in this round	Taxes collected from participants	Total taxes collected from all participants	Bonus per participant, from tax receipts	Final income of participant at end of round
<b>Group of students from Faculty A</b>					
Itamar	20	$20\% * 20 = 4$	$4 + 8 + 18 + 8 + 18 + 28 = 84$	$84 : 6 = 14$	$20 - 4 + 14 = 30$
Moran	40	$20\% * 40 = 8$		14	$40 - 8 + 14 = 46$
Tal	90	$20\% * 90 = 18$		14	$90 - 18 + 14 = 86$
<b>Avg., Faculty A</b>	50	10		14	$(30 + 46 + 86) : 3 = 54$
<b>Group of students from Faculty B</b>					
Matan	40	$20\% * 40 = 8$		14	$40 - 8 + 14 = 46$
Iris	90	$20\% * 90 = 18$		14	$90 - 18 + 14 = 86$
Irena	140	$20\% * 140 = 28$		14	$140 - 28 + 14 = 126$
<b>Avg., Faculty B</b>	90	18		14	$(46 + 86 + 126) : 3 = 86$
<b>Overall average</b>	70	14		14	70

Notice that the taxation and the payment of the bonus do not change the average total income. However, they do change the income of each participant in the experiment. Furthermore, the average income of students in Faculty A rose from 50 to 54 whereas the average income of students in Faculty B declined from 90 to 86.

EXPERIMENTAL INSTRUCTIONS:  
1. GROUP TREATMENT

**Example 2:**

This time we assume that the 40 percent tax rate was chosen for this round.

	Gross income in this round	Taxes collected from participants	Total taxes collected from all participants	Bonus per participant, from tax receipts	Final income of participant at end of round
<b>Group of students from Faculty A</b>			8+16+36+16+36+56= <u>168</u>		
Itamar	20	40%*20=8		168:6=28	20-8+28=40
Moran	40	40%*40=16		28	40-16+28=52
Tal	90	40%*90=36		28	90-36+28=82
<b>Avg., Faculty A</b>	50	20		28	(40+52+82):3=58
<b>Group of students from Faculty B</b>					
Matan	40	40%*40=16		28	40-16+28=52
Iris	90	40%*90=36		28	90-36+28=82
Irena	140	40%*140=56		28	140-56+28=112
<b>Avg., Faculty B</b>	90	36	28	(52+82+112):3=82	
<b>Overall average</b>	70	28		28	70

## 2. Instructions for Control Treatment

### Experiment in Decision-Making

This is an experiment in decision-making. During the experiment, you will make decisions and the other participants will do so as well. Your decisions and those of the others will determine the payment that you will receive according to rules that we will explain later on.

**You will be paid in cash at the end of the experiment, exactly as the rules say.**

Your income during the experiment will be measured in **Francs**. Your income in NIS [New Israeli Sheqalim] will be determined at the exchange rate of 40 Francs per 1 NIS.

The experiment will be conducted by means of computer. All decisions that you make during the experiment will be implemented by keying appropriate commands.

**Please remain totally silent during the experiment and do not speak with the other participants. Turn off your cell phones. If you have a question of any kind, raise your hand and one of the supervisors will come over to you.**

---

At this time, we wish to explain the rules that determine how much you will be paid in this experiment. At the end of the explanation stage and before the experiment itself begins, you will be asked to answer several questions that are meant to make sure that you understand the rules of the experiment clearly. Your answers to these questions will not affect the payments that you will receive at the end of the experiment. We will begin the experiment only after all participants understand the rules clearly.

There will be 18 participants in the experiment.

#### **Decision-Making**

In the course of the experiment, you will be asked to make several decisions. The decisions that you make will determine the payments that you will receive at the end of the experiment.

The experiment will include 40 rounds. At the beginning of each round, the computer will determine randomly the “gross” income of each participant in this round. A participant’s income in a certain round may range from 10 Francs to 150 Francs. The computer will inform each participant about his or her gross income in this round. Each participant will also receive information about the average income of all participants in the experiment in this round.

**After receiving the information about incomes in this round, you will be asked to make a decision.**

The decision is a choice between two proposed tax rates (for example 20 percent or 40 percent). One of these rates, the one that is chosen, will be imposed on the incomes of all participants in this round. The tax rate is determined by elections; the rate that receives a majority of votes is the winner in the elections. In the event of a tie, the computer will determine the winning tax rate at random (by a draw).

**The tax rate that wins the elections will be imposed on the gross income of all participants in the experiment. The revenue collected from the participants are the tax receipts. After the computer collects these taxes, all the tax receipts from this round will be distributed equally to all participants in the experiment as a “bonus.”**

EXPERIMENTAL INSTRUCTIONS:  
2. CONTROL TREATMENT

**For example**, say that in a given round the tax rate chosen in the elections is 10 percent. In this case, each participant whose gross income in this round was 100 Francs will pay 10 Francs in taxes. Other participants whose gross income in this round was 20 Francs will pay a tax of 2 Francs. However, all participants will receive **the same bonus**, equal to the total tax receipts—gathered from all participants—divided by the number of participants.

Say that the total income of the participants in this round is 1080 Francs. The computer will collect 10 percent of this sum from all participants as tax receipts in this round (108 Francs) and each participant will receive an equal portion of the tax receipts, in this case:  $108 / 18 = 6$  Francs.

Thus, the final income in this round of the participants whose gross income was 100 Francs is 96 Francs ( $100 - 10 + 6 = 96$ ).

The final income in this round of participants whose gross income was 20 Francs is 24 Francs ( $20 - 2 + 6 = 24$ ).

After receiving the information about incomes in this round, the screen will show the two proposed tax rates: 20 percent and 40 percent. You will have to decide which rate to vote for. As stated, the rate that receives a majority of votes from participants in this round of the experiment will be applied to the gross incomes of all participants in this round. In the event of a tie, the computer will determine the winning rate at random, with each rate having an equal likelihood of being chosen.

The first round ends when all participants finish voting and the computer applies the chosen tax rate to their income. Round 2 will take place on the basis of the same rules as Round 1, and so on until the last round.

**You will be given details about the results of the voting in each round only at the end of the experiment.**

Note that in each round a new draw is held for the gross income of all the participants. The participants vote only for the tax rate to be applied to the income from this round. In the next round, the computer holds a new draw for the gross income of each participant, and the tax rate to be applied to this income is chosen all over again.

After the last round of voting is over, you will be asked to fill in a brief questionnaire. This will mark the end of the experiment.

At the end of the experiment, each participant's computer screen will show him or her the detailed results of the voting in all 40 rounds. At this stage, the computer will add up the total Francs that you have accumulated in all the rounds of the experiment. Each participant will receive a notice with details on his or her net income in all rounds of the experiment (i.e., the final tally of income from all rounds, after subtraction of tax payments and addition of bonuses in each and every round).

**As mentioned above, at the end of the experiment we will pay you the full sum that you accumulated in cash, at the exchange rate of 1 NIS for every 40 Francs.**

The payments at the end of the experiment will be made in private; you do not have to tell anybody how much you earned.

EXPERIMENTAL INSTRUCTIONS:  
2. CONTROL TREATMENT

The following example is meant to make sure that the rules of the experiment—how the taxes are calculated and collected and how the bonus is distributed—are clear to you. During the experiment, you will not have to make these calculations yourself; the computer will do it for you.

To save time, the example is based on an experiment with six participants. (As stated, in the actual experiment there will be eighteen participants).

**Example 1:**

The table below shows the income data of possible participants in a certain round. **Say that the tax rate that the participants chose in this round is 20 percent.**

	Gross income in this round	Taxes collected from participants	Total taxes collected from all participants	Bonus per participant, from tax receipts	Final income of participant at end of round
Itamar	20	$20\% * 20 = 4$	$4 + 8 + 18 + 8 + 18 + 28 = 84$	$84 : 6 = 14$	$20 - 4 + 14 = 30$
Moran	40	$20\% * 40 = 8$		14	$40 - 8 + 14 = 46$
Tal	90	$20\% * 90 = 18$		14	$90 - 18 + 14 = 86$
Matan	40	$20\% * 40 = 8$		14	$40 - 8 + 14 = 46$
Iris	90	$20\% * 90 = 18$		14	$90 - 18 + 14 = 86$
Irena	140	$20\% * 140 = 28$		14	$140 - 28 + 14 = 126$
<b>Overall average</b>	70	14		14	70

Notice that the taxation and the payment of the bonus do not change the average total income. However, they do change the income of each participant in the experiment.

EXPERIMENTAL INSTRUCTIONS:  
2. CONTROL TREATMENT

**Example 2:**

This time we assume that the 40 percent tax rate was chosen for this round.

	Gross income in this round	Taxes collected from participants	Total taxes collected from all participants	Bonus per participant, from tax receipts	Final income of participant at end of round
Itamar	20	$40\% * 20 = 8$	$8 + 16 + 36 + 16 + 36 + 56 = 168$	$168 : 6 = 28$	$20 - 8 + 28 = 40$
Moran	40	$40\% * 40 = 16$		28	$40 - 16 + 28 = 52$
Tal	90	$40\% * 90 = 36$		28	$90 - 36 + 28 = 82$
Matan	40	$40\% * 40 = 16$		28	$40 - 16 + 28 = 52$
Iris	90	$40\% * 90 = 36$		28	$90 - 36 + 28 = 82$
Irena	140	$40\% * 140 = 56$		28	$140 - 56 + 28 = 112$
<b>Overall average</b>	70	28		28	70