WELCOME TO OUR EXPERIMENT!

This is a serious scientific experiment and, as such, no talking, looking around or walking around will be permitted. If you have any questions or need any assistance, please raise your hand and an experimenter will come to you. If you talk, exclaim out loud, etc, YOU WILL BE ASKED TO LEAVE AND YOU WILL NOT BE PAID. Thank you.

This is an experiment on individual decision making. The ESRC Centre for Evolutionary Learning and Social Evolution (ELSE) has provided the funds for this experiment. You will be paid £5 (five pounds) for having arrived on time. Additionally, if you follow the instructions and pass an Understanding Test you will be allowed to continue in the experiment. Once in the experiment, depending on your decisions you may earn a considerable additional amount of money. This additional amount will be determined both by your decisions and by those of other participants in the experiment. Before making your decisions, you will be informed about how your earnings and the other participants' earnings depend on your and their decisions. All that you earn is yours to keep, and will be paid to you in private, in cash, after today's session.

We need 20 people for this session. Thus, if more than 20 people pass the Understanding Test, some of you will be asked not to participate in the experiment but to help the experimenter as "assistants". These assistants will check that everything is done as explained in the instructions. The assistants will be paid the average of the payments of the 20 participants in the experiment.

For each decision you take in the experiment, You will be anonymously matched with one of the other participants. We will refer to the other participants as "S / HE". You and s/he will be presented with a TABLE. For this table, You and S/HE separately and independently will make a DECISION. Together, the two decisions determine the number of POUNDS each of you earns, which may be different.

The table in the next page shows an illustrative example. IT IS ONLY AN ILLUSTRATION. The tables you will see during the experiment will be different from this one. AS YOU LOOK AT THIS TABLE, PLEASE CONTINUE READING THIS HANDOUT FOR INSTRUCTIONS ON HOW TO UNDERSTAND THE TABLE:

<div align="center">S / HE</div>

YOU		LEFT	CENTRE	RIGHT
	UP	9 1	8 2	7 3
	MIDDLE	6 4	5 5	4 6
	DOWN	3 7	2 8	1 9

In the actual experiment, you will be shown tables like this one (but with different numbers), and asked to choose one of your decisions ("UP", "MIDDLE" or "DOWN"). The participant to whom you are matched for each table will be asked, independently, to choose one of her/his decisions ("LEFT", "CENTRE" or "RIGHT").

The combination of your decision and her/his decision determines the cell of the table chosen. The number of pounds you and s/he receive for the cell chosen is a whole number ranging from 1 to 11.
The number of pounds you receive appears in the lower left corner of each cell of the table.
The number of pounds s/he receives appears in the upper right corner of each cell of the table.
To interpret the table, consider the results of the possible combinations of decisions.

-If you choose UP and S/HE chooses LEFT, you earn 1 Pound and S/HE earns 9 Pounds.
-If you choose UP and S/HE chooses CENTRE, you earn 2 Pounds and S/HE earns 8 Pounds.
-If you choose UP and S/HE chooses RIGHT, you earn 3 Pounds and S/HE earns 7 Pounds.
-If you choose MIDDLE and S/HE chooses LEFT, you earn 4 Pounds and S/HE earns 6 Pounds.
-If you choose MIDDLE and S/HE chooses CENTRE, you earn 5 Pounds and S/HE earns 5 Pounds.
-If you choose MIDDLE and S/HE chooses RIGHT, you earn 6 Pounds and S/HE earns 4 Pounds.
-If you choose DOWN and S/HE chooses LEFT, you earn 7 Pounds and S/HE earns 3 Pounds.
-If you choose DOWN and S/HE chooses CENTRE, you earn 8 Pounds and S/HE earns 2 Pounds.
-If you choose DOWN and S/HE chooses RIGHT, you earn 9 Pounds and S/HE earns 1 Pound.

Please be sure you understand this table. Raise your hand if you would like further explanation. Otherwise, please start with the Understanding Test in the next page. Please raise your hand once you have finished the Understanding Test.

UDERSTANDING TEST

You will now take a short UNDERSTANDING TEST. After you have finished the TEST, it will be graded and you will ONLY be allowed to continue in the experiment if you have answered ALL the QUESTIONS CORRECTLY. If one or more of your answers is not correct, we will ask you to be our assistant and to check that everything proceeds as explained in the instructions. Notice that even if all your answers are correct, you may be asked to be our assistant.
This test has 5 questions. After you have answered all 5 questions, please re-check your answers. Please raise your hand when you are finished so as we can grade this test.

S / HE

		LEFT	CENTRE	RIGHT
	UP	6 / 2	3 / 7	4 / 5
YOU	MIDDLE	8 / 9	9 / 6	2 / 4
	DOWN	1 / 1	5 / 3	7 / 3

Using the table above, please answer the following questions.

<u>**Questions:**</u>

1. If you choose MIDDLE and S/HE chooses RIGHT, how many Pounds will you earn?

2. If you choose UP and S/HE chooses LEFT, how many Pounds will S/HE earn?

3. If you choose UP and S/HE chooses RIGHT, how many Pounds will you earn?

4. If you choose DOWN and S/HE chooses CENTRE, how many Pounds will you earn?

5. If you choose DOWN and S/HE chooses LEFT, how many Pounds will S/HE earn?

YOU HAVE JUST COMPLETED THE TEST.
Please re-check your answers and raise your hand when you are done.

INSTRUCTIONS – PART I

There are 20 participants in this experiment. We have randomly divided the 20 participants in two groups of 10 participants. Everyone has been recruited for this experiment using the same procedure and everyone is receiving the same instructions.

In this experiment we are going to show you 10 different tables, similar to the one you have already seen. In Part I, for each table, you will have to take one decision. Below we explain how to take this decision and how you will be paid for it.

For each table, you have to choose between "UP", "MIDDLE" and "DOWN".
The 10 participants in the other group, choose between "LEFT", "CENTRE" and "RIGHT" in each of the 10 tables.

Notice that for each of the 10 tables, you have been anonymously and randomly matched with one of the 10 participants in the other group (who chooses between "LEFT", "CENTRE" and "RIGHT").
YOU HAVE BEEN MATCHED WITH A DIFFERENT PARTICIPANT IN EACH TABLE.
None of the participants will know who they are matched with in each table.

Lets see an example on how to take your decision:

In the table below I have circled "MIDDLE" to indicate that "MIDDLE" is my decision.

Example:

		S/HE		
		LEFT	CENTRE	RIGHT
	UP	5 2	4 8	3 4
YOU	MIDDLE	7 5	4 11	3 7
	DOWN	9 3	11 1	8 5

Caution: The choice used in this example was selected arbitrarily. It is NOT intended to suggest how anyone might respond in any situation.

Below we explain how we will pay you according to your answers and the answers of your matched participants to Part I.

<center>**PAYMENT FOR YOUR ANSWERS TO PART I**</center>

You will be paid a number of pounds equal to the number that appears in the lower left corner of the cell that you and your matched participant in that table have chosen. Your matched participant in the table will be paid the amount of pounds that appears on the upper right corner of the cell that you and her/him have chosen.

We will wait until all participants have finished answering the question in the 10 tables. Please take some time to think and check your answers. We will allow a maximum of 20 minutes to answer all questions. **Please, if you finish before time raise your hand and we will collect your answers.** However, you are asked to remain in your seat quiet until all participants have finished.

After all participants have finished, we will proceed to Part II of this experiment, in which you will be asked a different question.

After we finish with Part II, we will randomly select ONE table from which payments to all participants will be done. This table will be selected using a bingo urn with 10 numbered balls. The number on the ball selected determines for which of the 10 tables all participants are paid.

<center>**PLEASE WAIT UNTIL THE EXPERIMENTER TELLS YOU TO START**
(Please raise your hand if there are any doubts with these instructions, and we will answer them privately)</center>

<center># INSTRUCTIONS – PART II</center>

In this part of the experiment, you will be shown the same tables you were shown in Part I (although in different order). However, this time we do not ask you to take a decision, but to tell us how you THINK the 10 participants in the other group have decided.

The 10 participants in the other group have chosen between "LEFT", "CENTRE" and "RIGHT" in each of the 10 tables.

You will have to write down how many of the 10 participants in the other group YOU THINK have chosen each of their 3 options (LEFT, CENTRE and RIGHT) in each of the 10 tables.

Lets see an example on how to answer this Part II question:

In the table below I have written down that out of the 10 participants in the other group, I THINK 4 will choose "LEFT", I THINK 1 will choose "CENTRE" and I THINK 5 will choose "RIGHT". (Notice that guesses about how others play must always add up to 10).

Example:

Out of the 10 participants in the other group I think they have chosen:

	LEFT	CENTRE	RIGHT	TOTAL
	———	———	———	___10___

		S/HE	
	LEFT	CENTRE	RIGHT

		LEFT	CENTRE	RIGHT
	UP	5 / 2	4 / 8	3 / 4
YOU	MIDDLE	7 / 5	4 / 11	3 / 7
	DOWN	9 / 3	11 / 1	8 / 5

Caution: The numbers used in this example were selected arbitrarily. They are NOT intended to suggest how anyone might respond in any situation.

PAYMENT FOR PART II QUESTION

You will be paid an amount of money according to the difference between the number of participants in the other group you have guessed have chosen each option ("LEFT", "CENTRE" or "RIGHT") and the actual number of participants in the other group who have in fact chosen each option.

We will pay you according to a formula that we explain below. Do not worry if the formula seems complicated as it is not important that you understand the workings of the formula completely. However, notice that with this formula, the closer the numbers you write down (your "guesses") to the actual number of participants who have chosen each decision in each table, the more money you will get.

For example, if 6 participants have chosen LEFT and you guessed that 6 participants would choose LEFT, you would get more money than if you guessed that 5 or 7 participants would choose LEFT for that table.

Here is the formula:

$$Payment = 2 - 0.01 * [(a - X)^2 + (b - Y)^2 + (c - Z)^2]$$

Where:

a: Number of participants you think have chosen LEFT   *X: Number of participants who have chosen LEFT*
b: Number of participants you think have chosen CENTRE   *Y: Number of participants who have chosen CENTRE*
c: Number of participants you think have chosen RIGHT   *Z: Number of participants who have chosen RIGHT*

Please follow the next examples to see how the formula works.

Examples:

-In some table, you write that you think 7 participants have chosen UP, 0 participants have chosen CENTRE and 2 participants have chosen RIGHT. If, in fact, 7 participants have chosen UP, 0 participants have chosen CENTRE and 2 participants have chosen RIGHT, you get:

$$Payment = 2 - 0.01*[(7\text{-}7)^2 + (0\text{-}0)^2 + (2\text{ -}2)^2] = 2\text{-} 0.01*[0] = \textbf{2 Pounds}.$$

- In some other table, you write that you think, 5 participants have chosen UP, 2 participants have chosen CENTRE and 3 participants have chosen RIGHT. If, in fact, 1 participant has chosen UP, 8 participants have chosen CENTRE and 1 participant has chosen RIGHT, you get:

$$Payment = 2 - 0.01\ [(5\text{-}1)^2 + (2\text{-}8)^2 + (3\text{ -}1)^2] = 2 - 0.01[4^2 + 6^2 + 2^2] =$$
$$= 2 - 0.01*[56] = \textbf{1.44 Pounds}$$

- Finally, in some other table, you write that you think, 0 participants have chosen UP, 10 participants have chosen CENTRE and 0 participants have chosen RIGHT. If, in fact, 10 participants have chosen UP, 0 participants have chosen CENTRE and 0 participants have chosen RIGHT, you get:

$$Payment = 2 - 0.01\ [(0\text{-}10)^2 + (10\text{-}0)^2 + (0\text{ -}0)^2] = 2 - 0.01[0] = \textbf{0 Pounds}$$

Caution: The numbers used in this example were selected arbitrarily. They are NOT intended to suggest how anyone might respond in any situation.

These examples should illustrate that with this formula you will always receive a payment of at least £0 and at most £2 for Part II and that you will earn more money the more accurate your written guesses are.

FINAL INSTRUCTIONS

We will wait until all participants have finished answering the Part II question in the 10 tables. Please take some time to think and check your answers. We will allow a maximum of 20 minutes to answer all questions. **Please, if you finish before time raise your hand and we will collect your answers.** However, you are asked to remain in your seat quiet until all participants have finished.

As explained in Part I, after all participants have finished with Part II, we will randomly select ONE table from which all payments to all participants will be done. This table will be selected using a bingo urn with 10 numbered balls. The number on the ball selected determines for which of the 10 tables all participants are paid for both question 1 and question 2.

You will be paid the sum of three things:

- £5 for arriving on time
- The amount of pounds indicated in the lower left corner of the cell that you and your matched participant in the selected table have chosen (Part I Payments).
- The result of applying the formula explained for Part II to the selected table.

You have been given an identification number. Please write this number at the top of each of your answer sheets and keep the number. You will need this number to be paid.

While we calculate the payments you will be asked to fill in an anonymous questionnaire. After we have done the calculations, you will be asked to come with the questionnaire and your identification number to a room where you will be paid your earnings in cash and in private.

PLEASE WAIT UNTIL THE EXPERIMENTER TELLS YOU TO START
(Please raise your hand if there are any doubts with these instructions, and we will answer them privately)