

## B Sample instructions

Below is the text of instructions from our cell with the NDG and increasing cake sizes, followed by that from our cell with the UBG and decreasing cake sizes. The other two sets of instructions are available from the corresponding author upon request.

### **Instructions: first part of experiment [NDG, increasing cake sizes]**

You are about to participate in a decision making experiment. Please read these instructions carefully, as the amount of money you earn may depend on how well you understand them. If you have a question at any time, please feel free to ask the experimenter. We ask that you not talk with the other participants during the experiment.

This experiment consists of two parts, each made up of 20 rounds. These instructions are for the first half; you will receive instructions for the second half after this half has ended. Each round in this half consists of one play of a simple bargaining game, played between two people via the computer. In every round, you are randomly matched to another participant, with whom you will play this bargaining game. You will not be told the identity of the person you are matched with in any round, nor will they be told your identity – even after the end of the session.

The bargaining game is as follows. You and the person matched to you bargain over a £5.00 prize. You and the other person make simultaneous claims for shares of this prize.

- If your claims add up to the amount of the prize or less, you receive your claim, and the other person receives his/her claim.
- If your claims add up to more than the amount of the prize, you receive an “outside option”, and the other person receives a different “outside option”.

These outside options are chosen randomly by the computer, and vary from round to round and from person to person. In each round, you and the person matched to you are informed of both of your outside options before choosing your claims.

**Sequence of Play:** The sequence of play in a round is as follows.

- (1) The computer randomly matches you to another participant, and randomly determines your outside option and the outside option of the other person. Your computer screen will display both your outside option and that of the other person.
- (2) You choose a claim for your share of the £5.00 prize. The other person chooses a claim for his/her share of the prize. Your claim can be any multiple of 0.01, between zero and 5.00 inclusive. Both of you choose your claim before being informed of the other's.
- (3) The round ends. You receive the following information: your own choice, the choice made by the person matched with you, your own payoff for the round, the payoff of the person matched with you.

After this, you go on to the next round.

**Payments:** At the end of the experimental session, two rounds from this half will be chosen randomly for each participant. You will be paid the total of your earnings in those two rounds. In addition, there will be opportunities for payments in the second half of the session. Payments are made privately and in cash at the end of the session.

### **Instructions: second part of experiment**

The procedure in this part of the experiment is nearly the same as that in the first part. You will play the same bargaining game as before, for 20 additional rounds. The participant matched with you will still be chosen randomly in every round, and your outside options will also be chosen randomly in every round.

The difference from the first part of the experiment is that the prize is now worth £20. So, you and the other person are now choosing shares of £20 instead of £5. Your claim – and that of the other person – can now be any multiple of 0.01, between zero and 20.00 inclusive.

As before, if your claims add up to the amount of the prize or less, you receive your claim, and the other person receives his/her claim. If your claims add up to more than the amount of the prize, you both receive your respective outside options.

At the end of the experimental session, two rounds from this half will be chosen randomly for each participant. You will be paid the total of your earnings in those two rounds. Your earnings from this part of the experiment will be added to your earnings from the previous part.

## Instructions: first part of experiment [UBG, decreasing cake sizes]

You are about to participate in a decision making experiment. Please read these instructions carefully, as the amount of money you earn may depend on how well you understand them. If you have a question at any time, please feel free to ask the experimenter. We ask that you not talk with the other participants during the experiment.

This experiment consists of two parts, each made up of 20 rounds. These instructions are for the first half; you will receive instructions for the second half after this half has ended. Each round in this half consists of one play of a simple bargaining game, played between two people via the computer. In every round, you are randomly matched to another participant, with whom you will play this bargaining game. You will not be told the identity of the person you are matched with in any round, nor will they be told your identity – even after the end of the session.

The bargaining game is as follows. You and the person matched to you bargain over a £20.00 prize. You do this by sending and receiving proposals for dividing the prize during a “negotiation stage” of the game. Below is an example of how the bottom portion of your computer screen will look during the negotiation stage.

To make a proposal, type it into the spaces in the bottom-left corner, then click the SEND PROPOSAL button. Proposals sent and received will appear in the boxes below.

To accept a proposal from the player matched with you, select that proposal in the box in the bottom-right corner and click the ACCEPT PROPOSAL button.

If you would like to end bargaining, click the END BARGAINING button on the right. If you click this button, you and the other person will receive your outside options.

**End this stage**

Make a proposal:	Proposals made by you:		Proposals made by other person:	
	Your proposal for yourself	Your proposal for the other person	Other person's proposal for you	Other person's proposal for himself
Your proposal for yourself: <input type="text"/>				
Your proposal for the other person: <input type="text"/>				
<b>Send proposal</b>				<b>Accept proposal</b>

To send a proposal to the other person, type the amounts for yourself and the other person in the “Make a proposal” box, then click “Send proposal”. The amounts you enter must be between zero and the amount of the prize (inclusive), and can have 0, 1 or 2 decimal places. The two amounts together must add up to the amount of the prize, or less. All of your proposals will appear in the box in the bottom-centre of your screen, and all of the proposals made by the other person will appear in the box in the bottom-right. The person matched to you will see these proposals as well, but no one else will be able to see your proposals, nor will you be able to see theirs.

You may accept any one of the proposals from the person matched to you, or none of them. To accept a proposal, highlight the one you wish to accept and click “Accept proposal”. If either you or the other person accepts a proposal, then you have reached an agreement, and the prize is divided according to the accepted proposal.

The negotiation stage lasts for up to 90 seconds; you may send as many or as few proposals as you wish during that time. You may end the negotiation stage before the 90 seconds are over, by clicking on the button labelled “End this stage” on the right of your screen. Once you or the person matched with you has clicked this button, it is not possible to send or accept proposals.

If you or the other person ends the negotiation stage early, or if the time available for proposals ends without you reaching an agreement, then you receive an “outside option”, and the other person receives a different “outside option”. These outside options are chosen randomly by the computer, and vary from round to round and from person to person. In each round, you and the person matched to you are informed of both of your outside options at the beginning of the negotiation stage.

***Sequence of Play:*** The sequence of play in a round is as follows.

- (1) The computer randomly matches you to another participant, and randomly determines your outside option and the outside option of the other person. Your computer screen will display both your outside option and that of the other person.
- (2) The negotiation stage begins. You can send proposals for dividing the £20.00 prize. The other person can also send proposals for dividing the £20.00 prize; you can accept one of these proposals or none of them.
- (3) The round ends. You receive the following information: whether or not you reached an agreement, your own payoff, the payoff of the person matched with you.  
After this, you go on to the next round.

***Payments:*** At the end of the experimental session, two rounds from this half will be chosen randomly for each participant. You will be paid the total of your earnings in those two rounds. In addition, there will be opportunities for payments in the second half of the session. Payments are made privately and in cash at the end of the session.

### **Instructions: second part of experiment**

The procedure in this part of the experiment is nearly the same as that in the first part. You will play the same bargaining game as before, for 20 additional rounds. The participant matched with you will still be chosen randomly in every round, and your outside options will also be chosen randomly in every round.

The difference from the first part of the experiment is that the prize is now worth £5. So, you and the other person are now sending and receiving proposals for dividing £5 instead of £20. The amounts you propose for yourself – and for the other person – can now be any multiple of 0.01, between zero and 5.00 inclusive, and they must add up to 5.00 or less.

As before, if you or the other person ends the negotiation stage early, or if the time available for proposals ends without reaching agreement, then you both receive your respective outside options.

At the end of the experimental session, two rounds from this half will be chosen randomly for each participant. You will be paid the total of your earnings in those two rounds. Your earnings from this part of the experiment will be added to your earnings from the previous part.

Round

1 of 40

Remaining time [sec]: 86

This is the beginning of Round 1. You have been randomly matched to another person for this round.

In this round, you and the other person will be bargaining over **£20.00**.

If you reach an agreement, you will receive the amount you agreed.

If you do not reach an agreement, you will receive an outside option of **£2.82** and the other person will receive an outside option of **£5.49**.

To make a proposal, type it into the spaces in the bottom-left corner, then click the SEND PROPOSAL button. Proposals sent and received will appear in the boxes below.

To accept a proposal from the player matched with you, select that proposal in the box in the bottom-right corner and click the ACCEPT PROPOSAL button.

If you would like to end bargaining, click the END BARGAINING button on the right. If you click this button, you and the other person will receive your outside options.

End this stage

Make a proposal:

Proposals made by you:

Proposals made by other person:

	Proposals made by you:		Proposals made by other person:	
	Your proposal for yourself	Your proposal for the other person	Other person's proposal for you	Other person's proposal for him/herself
Your proposal for yourself: <input type="text"/>				
Your proposal for the other person: <input type="text"/>				
<p>Send proposal</p>			<p>Accept proposal</p>	