

### experimental evidence on costly communication in duopolies

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# Instructions, Message Form and Questionnaire

Do Antitrust Laws Facilitate Collusion? Experimental Evidence on

Costly Communication in Duopolies

### 1 Instructions

This is a translation of the actual instructions used in the pen and paper (the instructions for the computer experiment only differed in the bid range) which were written in Swedish to any avoid misunderstandings in the experiment. We have tried to make the translation as direct as possible, but in order to get the grammar right some differences are unavoidable. The part that differs between the zero-cost and the costly setup were *emphasized*.

#### **1.1** General instructions

This is an experiment about decisions in markets. It is important that you do not talk to other participants during the actual experiment, and any questions that occur should be addressed to the experimenters. Before the experiment begins, there will be time to ask questions to the experimenters. It is of great importance that you understand the structure of the experiment, therefore it is important that you read the instructions thoroughly so that no uncertainty, regarding the experiment, remains. All participants are divided into two groups which in turn are placed in two different rooms. Every player is assigned an ID-number, yours is located on your desk. You will be paired with a participant from the other room and the two of you will repeatedly play the game described below.

#### The game

You and your opponent will be asked to choose a number between 1 and 9 (decimal numbers are allowed). You write down your choice, in each period, on the yellow form.

- If you choose a number which is **higher** than your opponent's you will earn 0 SEK this period.
- If you choose a number which is **lower** than your opponent's you will earn as much as the number you chose.

• If you and your opponent choose **the same** number then you will split the value of the number you chose.

For example: If you choose 3 and your opponent chooses 5 then you earn 3 SEK and your opponent 0 SEK. If both of you choose the number 7 then you will earn 3,5 SEK each.

After you and your opponent have chosen your numbers a new period will

begin with 92,5% probability. That is, there is a 7,5% chance that the game will end after each period. The experimenter will inform you if the game will proceed another period and which number your opponent chose. Your final earning will consist of a starting-amount of 25 SEK and the winnings from all periods.

#### Messages

Before each period you and your opponent will be given the opportunity to send a message. Which one of you who will be able to send this message is decided randomly each period. In the message you can agree on selecting the same number and thereby splitting the value of the number you chose. If you want to send a message, write your choice of number on the white form otherwise put a cross in the "no message" square. The experimenter will collect the form and deliver them to your opponent. On the same form your opponent will indicate if she/he agrees or not, the form will then be returned to you. Note that the message is not binding, that is, you are not obliged to chose the same number as you write/agree on in the message. It will cost you 9(2) SEK to send a message. It will also cost 9(2) SEK to reply to a message. The experimenter will register if you send a message and deduct the fee from your final earnings. After the message has been sent and returned you make your choice of number.

# 2 Message and bid forms

This is a translation of the message and bid forms.

### 2.1 Message form

Period X		
ID-number:	No message $\Box$ or	
	I consider to be an appropriate number.	
ID-number:	No message $\Box$ or	
	I agree: $\Box$	
	I do not agree: $\Box$	

# 2.2 Bid form (Yellow form)

	Your ID-number:	Your opponent's ID-number
	You fill in this column	The experimenter fills in this column
Period: 1	My choice	My opponent's choice
Period: 2	My choice	My opponent's choice
Period: 20	My choice	My opponent's choice

### 3 Questionnaire

ID-number:....

**Sex:**  $\Box$  female  $\Box$  male

Question 1. Did you have any particular strategy during the game? If yes, describe it. ..... ..... ..... ..... ..... Question 2. Did you trust that your opponent would choose the number she / he suggested in her / his messages? ..... Why / Why not ? ..... ..... ..... Question 3. Do you believe that your opponent did trust that you would choose the numbers that you suggested in your messages? ..... Why / Why not ? ..... Question 4. If you and your opponent did agree to choose the same number and shared profits, why didn't you choose a smaller number in order to get all profits alone? ..... .....

Question 5. If your opponent didn't keep his word, would you consider

agreeing on a new message from your opponent?
Why / Why not ?