

Experimental Instructions
for
“Dividing justly in bargaining problems
with claims: Normative judgments and
actual negotiations”

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The experimental instructions were originally written in German.

General explanations for participants

You are now participating in an economics experiment that is financed by several scientific institutions. If you are reading the following explanations carefully you can - depending on your decisions - earn additional money (besides the fixed show-up fee of ATS 70,-). It is, therefore, important that you carefully read the following explanations. At the end of the experiment you will be, in addition to the show-up fee, instantly paid in cash all the money you have earned according to your decisions.

During the experiment we will speak of points instead of Austrian Schillings. Thus, all your income will be counted in points. The total number of points you have earned during the experiment will be exchanged into Austrian Schillings at the end of the experiment, where

1 point = 10 Groschen.

The instructions you have received are for your private information only. **During the experiment you are not allowed to communicate.** If you have questions then please direct them to us. If you do not follow this rule you will be excluded from the experiment and all payments.

On the following pages we will describe the exact procedure of the experiment.

Information about the exact procedure of the experiment

In the experiment you will be randomly paired with another person in the other computer lab. You will be paired with this other person throughout the whole experiment. Nobody, however, will be informed about who is paired with whom.

The experiment is a about so-called **bargaining with claims**. The experiment consists of two parts. The first part consists of the determination of the respective **claims** and in the second part bargaining takes place.

Determination of claims

In the first part of the experiment the claims are determined. This is done as follows. Each participant has to answer questions, where there is **exactly one correct answer** and several wrong answers. The questions concern several fields of knowledge. In total there are 24 questions. Each participant receives the same questions. The person in a pair with the most correct answers is the winner. You will answer the questions on the computer. You will have at most **12 minutes** to answer all questions. A question looks like this:

		12:00
Which color is contained in the flags of all Islamic countries?		
red	< 1 >	
blue	< 2 >	
green	< 3 >	
yellow	< 4 >	
orange	< 5 >	
According to my knowledge the correct answer is < >.		
After you have typed the number, please press <Enter>.		

You answer a question by typing the **number of the answer** and by striking the **<Enter>**-key. The next question then shows up automatically. After you and your partner have answered all questions (or the 12 minutes are over) you will see on the screen who has answered more questions correctly, i.e., who is the winner and who is the loser.

The person who has answered more questions correctly is the **winner** and earns a **claim of 1980 [1640] points**. The **loser**, that is the one who was worse in answering the questions earns **only a claim of 510 [850] points** (the sum of claims is therefore, 2490 points.)

If both have answered the same number of questions correctly a random device will determine who is the winner and who the loser. This is done automatically by the computer. You will be informed about the outcome on the screen.

After it is clear who of you is the winner you have to fill in your claim and the claim of your partner into the **documentation sheet**. This finishes the first part of the experiment and the second part begins.

At the beginning of the second part a **random device** decides whether your earned claims are actually paid out or whether you have to bargain with your partner about the **division of 2050 points** instead.

This will done in the following way: After you have earned your claims you receive a die from us. Now, everybody has to throw it. After you have thrown the die please fill in the number you have thrown in the computer and, thereafter, also in your documentation sheet. The computer will then tell you the number thrown by your bargaining partner. Please fill in this number also in your documentation, in the therefore pre-specified space. There are now two possibilities:

1. If the **sum of dice numbers is smaller or equal to 10** then you have to **bargain** with your bargaining partner **over the distribution of 2050 points**, which are at your

and your bargaining partner's *joint* disposal. In this case you get paid out the number of points in Schillings according to the agreement between you and your bargaining partner.

2. If the **sum of dice numbers is larger than 10** then you will get paid out your claims **anyway**. Nevertheless, you have to bargain about the distribution of 2050 points with your bargaining partner. However, this bargaining is only **hypothetical**, that is, you have to bargain **as if** you would have only 2050 points at your joint disposal, which you have to distribute between you. However, you get paid out your earned claim and not the distribution you have agreed upon.

Example 1: Suppose you have answered more questions correctly than your partner and, therefore, you are the winner. You earned a claim of 1950 [1640] points, whereas your bargaining partner who has lost only earned a claim of 510 [850] points. Thereafter, you throw a 4 and your bargaining partner a 6. The sum of dice numbers is 10. Therefore, your claims are not paid out to you and you have now to find an agreement on the distribution of 2050 points, which are at your *joint* disposal. **You only get paid out the amount in Schillings on which you agree with your bargaining partner.**

Example 2: Suppose you have answered fewer questions correctly than your partner and, therefore, you are the loser. Your claim is only 510 [850] points, whereas the claim of your bargaining partner is 1980 [1640] points. When throwing the dice you throw a 5 and your bargaining partner a 6. Thus, the sum is 11. Therefore, you get credited 510 [850] points whereas your bargaining partner gets credited 1980 [1640] points by us. Nevertheless, you have to bargain with your bargaining partner **as if** you would have only 2050 points at your joint disposal. **However, for your payment the bargaining result is not relevant but only the earned salary claims.**

Summary of determination of claims

The person who has answered more questions correctly is the winner!
If the number of correct answers is the same a random device decides.

Claim of the winner: 1980 [1640] points

Claim of the loser: 510 [850] points

Sum of dice numbers smaller or equal to 10: only the bargaining agreement on the distribution of 2050 points will be paid out.

Sum of dice numbers greater than 10 (11 or 12): the earned claims will be paid out; hypothetical bargaining over the distribution of 2050 points.

The bargaining

After the throwing the dice it is determined whether you have to bargain actually or hypothetically over the distribution of the points. The bargaining procedure is the same in both cases, however. You have a maximum of **15 minutes** to reach an agreement with your bargaining partner on the distribution of the 2050 points, which is at your joint disposal. You do not have to use up all the bargaining time but must not exceed it. **If you actually bargain and you do not agree on a distribution within 15 minutes, then you will get paid nothing! If you do agree on a distribution then you will get paid out your share.**

If you **bargain hypothetically** you get paid only the earned claims in any case.

The bargaining is done via the computer. During bargaining you will work with two different screens; the information screen and the offer screen, which we will explain in what follows.

The **information screen** serves mainly for the documentation of the current state of bargaining and is build up as follows. The screen consists of four parts, which are separated by horizontal lines.



1. In the top part the claims are shown. The clock right on the top shows how much bargaining time is still remaining.
2. In the second part you see the currently valid proposal and the accompanied message of your bargaining partner.
3. The third part shows your own currently valid proposal together with your message.

4. The last two rows inform you which keys you have to press if you want to make, send, or accept an offer, respectively.

If you want to make a **proposal** you have to press the **key <E>**. Thereafter the **offer screen** shows up. Here you can fill in the proposal and your message to your bargaining partner in the corresponding fields.



The following rules apply:

1. A **proposal** consists of an **amount of points for you** and an **amount of points for your bargaining partner**. You have to enter your proposal in the row “Mein aktueller Vorschlag” in the fields “Mein Anteil” and “Mein Partner”, respectively. To switch a field forward you have to press the <Enter>-key (↵).
2. **The sum of points must not exceed 2050**. Smaller sums are allowed.
3. Only **integer** offers are allowed.
4. A sent offer is **binding**, that is, if your bargaining partner accepts your proposal bargaining is finished and both of you get the points on which you have agreed upon. The same holds if you accept a proposal of your bargaining partner. You can only accept the current proposal; earlier proposals are not valid any more.
5. In addition to your proposal you can also write a **message** to your bargaining partner. You write a message by entering it in the field “Meine Mitteilung”. You can reach this

field with the help of the <Enter>-key (↵), again. In the message window you have six rows at your disposal. If you want to change something in the message window please use the <Backspace>-key (←). This key deletes the text before the actual position of the cursor.

It is absolutely necessary that you **end each row** in the message-window with the <Enter>-key. If you don't do that the respective row will not be sent.

Messages alone are not allowed. A proposal has in any case to contain a distribution of points.

6. All messages that do **not** contain **threats** and do **not** open the possibility to **reveal your identity are allowed**. Messages that do not obey this rule will not be allowed by the experimenter and will be send back to the sender. Except your bargaining partner nobody else will get informed about your proposals and messages.

If you want to **send a proposal** (and a message) press first the <Esc>-key (you will then see the **information screen** again) and thereafter the <S>-key. As long as you have not pressed the <Esc>-key you can correct your message with the help of the <Backspace>-key. If you also would like to change your offer press first the <Esc>-key and then the <E>-key. Hence, as long as you have not pressed the <S>-key you can still change the offer and the message. A sent proposal is binding and shows up (with the message) on the information screen of your bargaining partner as well as on your own information screen.

If you want to **accept an offer** you have to press the key <A>. After you have pressed <A> you will be asked once more if you really want to accept the offer. If you would like to do that press the <J>-key. In case you change your mind hit the <N>-key; the information screen will then pop up again. **Attention:** Should you receive a new offer *after* you have pressed the key <A> but *before* you have pressed the key <J> then this new offer is the current one.

If you have reached an agreement you have to enter it in the corresponding column in your **documentation sheet** - depending on whether you have bargained actually or hypothetically.

Do you have any questions?

Participant No.:

DOCUMENTATION
of bargaining with claims

(a) My claim:

(b) Claim of my bargaining partner:

My die number:

Die number thrown by my bargaining partner:

Sum:

Sum of dice numbers 2 to 10	Sum of dice numbers 11 or 12
<i>ACTUAL</i> BARGAINING	<i>HYPOTHETICAL</i> BARGAINING
<u>Bargaining result:</u> (c) Points for me: points Points for my bargaining partner: points The payoff is as under item (c)!	<u>Bargaining result:</u> Points for me: points Points for my bargaining partner: points The payoff is as under item (a)!

One point is 10 Groschen!

Hints for bargaining over the computer.

1. To be able to **make an offer** you have to press the <E>-key.
2. To switch from the field “Mein Anteil” to the field “**Mein Partner**” you press the <Enter>(↵)-key.
3. To switch from the field “Mein Partner” to the field “**Meine Mitteilung**” you press the <Enter>(↵)-key.
4. If you would like to send **no message** to your partner press the <ESC>-key.
5. If you would like to send **a message** to your partner write the text, and **confirm EACH row** with the <Enter>(↵)-key.

ATTENTION

A row that is not confirmed with <Enter> will not be sent off!

6. When you have **finished** your **entries** press the <ESC>-key.

Now you can **send** your **offer**. For sending, hit the <S>-key.

To **accept** an **offer** hit the <A>-key and, thereafter, for **confirmation** the <J>-key. Only after you have confirmed with the <J>-key the offer is accepted.

How the bargaining screen has to be read.

