

Instructions for Combined Regrouping and Punishment Treatment

[Screen 1]

This is an experiment, funded by a research foundation, to study decision making. You will be earning money in "experimental dollars" during the experiment. At the end of the experiment you will be paid in cash in real dollars (each experimental dollar is worth real \$0.07, i.e. seven cents). The amount you will earn will depend on your and others' decisions. The maximum possible earning is \$27 (real dollars) and the minimum possible is \$5. You are likely to earn an amount in between. Please make sure you understand the decision process.

[Screen 2]

Your Group

You will be placed in a group of four. The people in your group will not change during the experiment, but you will not know the identity of who is in your group, during the experiment or afterwards. The other three people in your group will have "screen names" of B, C, and D. You will be identified on your own screen as "You," but your name on others' screens will vary.

There will be 20 rounds in the experiment. Although the real identity of each of the other people in your group is unknown to you, each screen name will refer to the same person during a round. (But at the end of each round the screen names will be randomly switched, and then fixed for the next round.)

[Screen 3]

Earnings

Each round is like the others, so we will describe how your earnings for the first round are determined.

At the beginning of the round each member of your group will receive \$10 (experimental dollars). Each of you must decide how to divide this amount between a group account and a personal account.

The money you assign to your personal account goes into your earnings.

An amount equal to 0.4 times the sum of all four assignments to the group account goes into your earnings.

Earnings = (amount in personal account) + (0.4)(total in group account)

[Screen 4]

The next four screens are designed to help you test your understanding

of the experiment so far. The screens are set up in the manner of the actual decision screens of the experiment, but the numbers you will be asked to enter on them are for practice, and do not affect your earnings.

Corresponding to each screen, there is a paper worksheet on your desk which you should fill in first before typing the numbers onto the screen itself, as instructed.

[Practice 1]

Fill out the section below for the following situation. The four members of your group each have \$10. Every member of your group has assigned \$10 to the group account and \$0 to their personal account.

1. Amount you assigned to group account: _____

2. Amount you assigned to your personal account: _____

(= \$10 - group account assignment on line 1)

3. Total number of dollars assigned to your group account: _____

4. Income from the group account for a member of your group _____

(.4 x group account total in line 3)

5. Your earnings so far: _____

(group account income in line 4 + personal account income in line 2)

Now, go back to the practice screen. Type in your assignment to the group account in the window according to the scenario above and submit it to make sure your calculations are correct.

[Practice 2]

Fill out the section below for the following situation. The four members of your group each have \$10. Every member of your group has assigned \$0 to the group account and \$10 to their personal account.

1. Amount you assigned to group account: _____

2. Amount you assigned to your personal account: _____

(= \$10 - group account assignment on line 1)

3. Total number of dollars assigned to your group account: _____

4. Income from the group account for a member of your group _____

(.4 x group account total in line 3)

5. Your earnings so far: _____

(group account income in line 4 + personal account in line 2)

Now, go back to the practice screen. Type in your assignment to the group account in the window according to the scenario above and submit it to make sure your calculations are correct.

[Practice 3]

Person B assigned \$10 to the group account and \$0 to his or her personal account, person C assigned \$5 to the group account and \$5 to his or her personal account, and person D assigned \$0 to the group account and \$10 to his or her personal account.

Fill out the section below for the above situation assuming that you assign \$5 to the group account.

1. Amount you assigned to group account: _____

2. Amount you assigned to your personal account: _____

(= \$10 - group account assignment on line 1)

3. Total number of dollars assigned to your group account: _____

4. Income from the group account for a member of your group _____

(.4 x group account total in line 3)

5. Your earnings so far: _____

(group account income in line 4 + personal account in line 2)

Now, go back to the practice screen. Type in your assignment to the group account in the window according to the scenario above and submit it to make sure your calculations are correct.

[Practice 4]

As in Practice 3, person B assigned \$10 to the group account and \$0 to his or her personal account, person C assigned \$5 to the group account and \$5 to his or her personal account, and person D assigned \$0 to the group account and \$10 to his or her personal account.

Fill out the section below for the above situation assuming that you assign \$6 (rather than \$5) to the group account.

1. Amount you assigned to group account: _____

2. Amount you assigned to your personal account: _____

(= \$10 - group account assignment on line 1)

3. Total number of dollars assigned to your group account: _____

4. Income from the group account for a member of your group _____

(.4 x group account total in line 3)

5. Your earnings so far: _____

(group account income in line 4 + personal account in line 2)

How does the change in your assignment to the group account from \$5 to \$6 affect your earnings?

How does it affect the earnings of other members of your group?

Now, go back to the practice screen. Type in your assignment to the group account in the window according to the scenario above and submit it to make sure your calculations are correct.

[Screen 5]

Reductions

There is another decision that affects your earnings. Once you learn the others' assignments to the group account, you have a chance to reduce others' earnings, and others have a chance to reduce your earnings.

The next screen and your last paper worksheet take you through an example of the earnings reduction process. As before, first fill out the worksheet, then enter the information onto the screen to check your

work.

[Practice 5]

It costs you \$0.25 to reduce the income of another person by \$1.00. Fill out the section below for the following situation:

You assigned \$5 to the group account and \$5 to your personal account, person B assigned \$10 to the group account and \$0 to his or her personal account, person C assigned \$5 to the group account and \$5 to his or her personal account, and person D assigned \$0 to the group account and \$10 to his or her personal account. You reduce person B's earnings by \$2, person C's by \$3 and person D's by \$4. You receive a total of \$1 in reductions from other members of your group.

Fill out the section below based on the above assumptions:

1. Amount you assigned to group account: _____

2. Amount you assigned to your personal account: _____
(= \$10 - group account assignment on line 1)

3. Total number of dollars assigned to your group account: _____

4. Income from the group account for a member of your group _____
(.4 x group account total in line 3)

5. Your earnings so far: _____
(group account income in line 4 + personal account in line 2)

6. You reduced the earnings of others in your group by a total of _____

7. This cost you _____
(0.25 x the sum of your reductions from line 6)

8. Other members of your group reduced your earnings by: _____

9. The total change in your earnings due to reductions _____
(line 7 + line 8)

10. Your total earnings for this period would be:

Now, go back to the practice screen. Enter and submit your reductions according to the scenario above and check that your calculations are correct. This will complete the practice portion of the instructions.

[Screen 6]

Your Net Earnings

Your net earnings for a round will be:

$$\begin{aligned} & \text{Amount in personal account} + \\ & (0.4)(\text{Total in group account}) - \\ & (\{z\})(\text{Total of your reductions of others}) - \\ & \text{Total of reductions of your earnings made by others.} \end{aligned}$$

If your net earnings are negative in any round, they will be set to zero for that round.

At the end of the experiment, the net earnings for the 20 rounds will be totaled and converted from experimental dollars to real dollars. Then \$5 will be added for your participation.

[Screen 7]

Regrouping

At the end of rounds 3, 6, 9, 12, 15 and 18, new groups will be chosen, based on rankings that each person gives to the others. The more favorably you rank some other person and the more favorably he or she ranks you, the more likely you and that person are to be grouped together.

At the time that you do the ranking, you will learn the average amount assigned to the group account by each person.

To rank the others, you type a number in each box (from 1 to 15). It will cost you \$0.25 (experimental dollars) for the first ranking and \$0.05 for each additional ranking that is not a tie (ties happen when you type in the same number for two or more individuals). You can choose not to rank anyone, in which case there is no cost of ranking for you.

Further details about the mechanics of ranking will be given before the first ranking stage.

[Screen 8]

During the experiment, you are asked to be as quiet as possible. The only communication that is permitted is that resulting from the inputting of your decisions into your computer terminal. It is important that you understand how the experiment works before we begin. Are there any questions?

Additional instructions before first ranking and regrouping stage

[Screen 1, Regrouping Instruction]

You will now have a chance to rank the other individuals and new groups will be formed. These new groups will be fixed for the next 3 rounds, after which the process will be repeated following rounds 6, 9, 12 and 15. Let's see how you can make your rankings and then we'll see how all the the rankings are combined to form the new groups.

[Screen 2, Regrouping Instruction]

How the Regrouping Process Works

Following these instructions, you will see on your screen the average contribution level of each of the other individuals in the room for all of the previous rounds.

The computer orders the individuals and their information randomly. Click the box beside each subject and type in your ranking (a number between 1 and 15, for the 15 other persons in the experiment). Your highest or most favorable rank is "1," and your least favorable rank is "15." If you want to rank two or more individuals the same, just type in the same number for each.

[Screen 3, Regrouping Instruction]

Examples

If you choose to give a distinct ranking to each individual, your goal is to give a different whole number to each of them. To make the process easier, the computer allows you to assign to individuals decimal numbers between the whole numbers, and then it re-scales the numbers for you.

To see more about how the process works, consider some examples.

[Screen 4, Regrouping Instruction]

Example A.

You select the individual you most want to be grouped with and type in "1" in the box by that person. You select the individual you next most

want to be grouped with and type in "2" by that person. But then you find a third individual that you would like to rank in between these two individuals. Just type a decimal number between "1" and "2" in that individual's box, for example "1.5" or "1.7".

[Screen 5, Regrouping Instruction]

Example B.

You decide you want to rank two (or more) people the same. Just type in the same number for each.

[Screen 6, Regrouping Instruction]

Example C.

You change your mind and want to rank someone differently. Click on the box and overtype your previous ranking.

[Screen 7, Regrouping Instruction]

Scaling

Once you have typed ranking numbers for each individual, click in the box labeled "Scale." The computer will keep your ordering but will re-scale the ranking numbers. You will notice that when you have ties the ranking numbers will be reset to the mid-point between your next higher and next lower rankings. If this mid-point is not a whole number, a decimal number will appear.

After the computer has re-scaled, you will have a chance to either approve this ranking, or to make further changes. To modify your rankings, just click in a box and overtype your previous rankings. Remember that you can use decimal numbers in making your adjustments, and that the computer will return decimal numbers to you in certain cases involving tied rankings. After making any changes, press "Scale" again. Once you are satisfied with your rankings, click the box labeled "Submit."

[Screen 8, Regrouping Instruction]

Cost

You will pay a cost of \$0.25 (25 experimental cents) for your first ranking and \$0.05 (5 experimental cents) for each additional ranking. Any group of rankings that are tied will be charged as a single ranking.

If you don't want to rank anyone, press the button labeled "Don't rank." There is no cost if you don't rank anyone.

Please note that once you type in some ranks, it is important to complete

the job and not leave any blank ranking spaces on your screen (ties must be indicated by assigning a common number, not blanks).

[Screen 9, Regrouping Instruction]

We will resume the experiment with the ranking stage when everyone is satisfied that they have understood the instructions. Are there any questions?