Egocentric Norm Adoption

—Instructions—

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The instructions have been translated from German. We present the wording for the following example: 24 subjects take part in the respective session, the given example subject has been allocated to Group 6 and has the name Player X, her roles are A and b, and the EF Procedure comes first. In the group over which she decides, i.e., Group 7, Player X's roles are A and a. All subjects saw identical instructions, except for changes regarding the above parameters.

1 Introduction

Welcome

Welcome, and thank you for participating in today's study! On the following pages, you will first receive information on data protection before entering your bank details. You need to accept the information on data protection to take part in this study. Additionally, you need a bank account from the euro area. Please note that you are only allowed to participate in the study once.

In case you have questions during the study, you can contact the head of the study at any time via the following channels:

• via telephone: +49 *** ******

• via WhatsApp: +49 *** ******

• via email: ********@uni-bonn.de

You can find all contact details in the email in which you received the link to this study. Please click "Continue" to proceed.

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Information on Data Protection

[omitted]

Your Bank Details

[omitted]

Please Wait

Please wait for a moment. We will continue soon.

2 Estimation Task

Estimation Task

For your participation in today's study, you receive a basic compensation of ≤ 4.00 . Additional money can potentially be added during the study. Before the main part of the study begins, we have an estimation task for you.

After a countdown, we will show you a picture for two seconds. The picture has a yellow background and shows a certain number of blue dots. It is your task to estimate the number of blue dots.

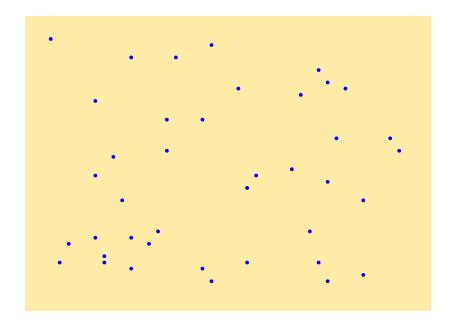
After the picture has been shown to you, you have 15 seconds to enter your answer in the appropriate field and click "Confirm." The lower the distance between your estimate and the actual number of dots, the better. Every estimate is better than no estimate. The better your estimate, the higher are your chances for additional money.

You will first receive a test task for practicing. In the test task, you will see a different number of dots than in the real task, and your estimate will not have any consequences. Apart from this, the test task is exactly as the actual task. When you are ready to start with the test task, please click "Start."

[Countdown]

3-2-1

[Test Signal]



Test Estimate

Your remaining time for this page: 15-14-...-1

The number of dots is:

Are You Ready?

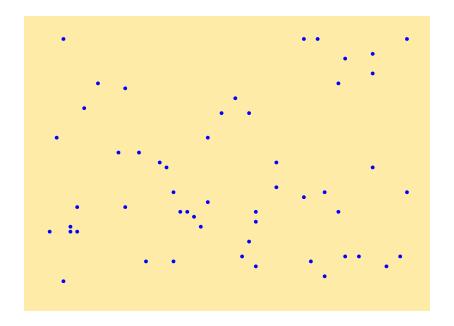
That was the test task. Thank you for your estimate!

You now know how the estimation task works. The real task is next. When you are ready, please click "Start."

[Countdown]

3-2-1

[Test Signal]



Your Estimate

Your remaining time for this page: 15—14—...—1

The number of dots is:

3 Situation

Your Situation: Overview

Thank you! We will later get back to the estimate.

All participants of the currently ongoing study have been grouped into twelve groups of two. The computer has determined the distribution randomly. The groups decide for other groups in a circle: Group 1 decides for Group 2, Group 2 decides for Group 3, and so on. Group 12 decides for Group 1. You yourself are *Player X* in *Group 6*. The other person in the group is *Player Y*.

In every group, points will be distributed between Player X and Player Y, which will later be converted into money. Players can earn up to 1,000 points. 100 points correspond to one euro. Therefore, you will additionally receive between ≤ 0 and ≤ 10 at the end of the study.

- The distribution of points in your group is decided by the players of Group 5.
- You and Player Y from your group decide over the distribution of points in Group 7.
- You yourself cannot influence the distribution of points in your own group in any way.

The distribution of points takes place twice, once according to *Procedure 1* and once according to *Procedure 2*. Which of the two procedures and which decision will be implemented at the end of the study will be decided randomly by the computer. Details follow later. First, we will explain the possible payments for you and Player Y from your group in detail.

Your Situation: Procedure 1

Please read carefully how your payment works according to Procedure 1.

In Procedure 1, there are different possible combinations of points that you and Player Y can receive. In total, you and Player Y from your group can receive between 400 and 1,000 points. You yourself can receive between 200 and 990 points.

- For some options, there are more points for you and Player Y in total, in others less.
- The more points you receive, the fewer Player Y receives.
- The more points you and Player Y receive in total, the more points you receive.

There are 20 options for how the players from Group 5 can distribute the points between you and Player Y from your group.

Option $\#$	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Player X	200	300	385	460	525	585	640	690	735	775	811	843	871	896	918	937	953	967	979	990
Player Y	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10
Total	400	490	565	630	685	735	780	820	855	885	911	933	951	966	978	987	993	997	999	1,000

Every column of the table shows one possible combination of points for you (Player X) and Player Y from your group. The farther right the column, the more you (Player X) receive, and the more you and Player Y receive in total.

Examples

- Option 1 means that you (Player X) receive 200 points, and Player Y from your group also receives 200 points.
- Option 20 means that you (Player X) receive 990 points, and Player Y from your group receives 10 points.

Your Situation: Procedure 2

Please read carefully how your payment works according to Procedure 2.

Points for your group

At the beginning of the study, you answered an estimation task. All other participants answered the same estimate task. At the end of the study, one player from your group will be compared to a player from Group 12—with which your group is otherwise not concerned. The player from your group that has randomly been selected for the comparison is Player Y.

- If Player Y from your group has estimated more accurately than the player from Group 12, your group receives 1,000 points.
- If Player Y from your group has estimated less accurately than the player from Group 12, your group receives no points.
- Your own estimate has no consequences for your group.

"To estimate more accurately" means that the estimate by a player deviates less from the true amount of dots than the estimate by another player. In case the estimates of the two players are the same, the winner is determined randomly. How many points Group 12 receives will be determined by a different comparison of estimates.

How many points your group receives in total, therefore, depends on Player Y from your group but not on you. You will learn the result later on.

Distribution of points

In case Player Y retains the 1,000 points for your group, the distribution of the points has to be decided. There are 20 options for how the players from Group 5 can distribute the points between you and Player Y from your group.

 Option #
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20

 Player X
 500
 475
 450
 425
 400
 375
 350
 325
 300
 275
 250
 225
 200
 175
 150
 125
 100
 75
 50
 25

 Player Y
 500
 525
 550
 575
 600
 625
 650
 675
 700
 725
 750
 775
 800
 825
 850
 875
 900
 925
 950
 975

Every column of the table shows one possible distribution of points between you (Player X) and Player Y from your group. The farther right the column, the more receives the player who retained the points for your group with their estimate (Player Y). The other person (you) receives less accordingly. The total number of points is always the same.

Examples

- Option 1 means that Player Y from your group receives 500 points, and you (Player X) also receive 500 points.
- Option 20 means that Player Y from your group receives 975 points, and you (Player X) receive 25 points.

Your Situation: Comprehension Questions

To make sure that you understood everything correctly about your payoff, please answer the following comprehension questions. To re-read the instructions, please click on the respective tab.

Which player are you in your group? (Player X, Player Y)

In which group are you? (6)

For the players from which group do you decide? (7)

The players from which group decide about your payoff? (5)

In which group is the player whose estimate is compared to the estimate by Player Y from your group for Procedure 2? (12)

How many points do you receive according to Procedure 1? (minimum: 200, maximum: 990)

How many points does Player Y from your group receive according to Procedure 1? (minimum: 10, maximum: 200)

How are the points distributed according to Procedure 1 if option 4 is chosen for your group? (you receive: 200, Player Y from your group receives: 170)

On which of the two estimates from you (Player X) and Player Y from your group does it depend how many points your group receives in total according to Procedure 2? (only on my estimate, only on the estimate from Player Y from my group, on my estimate and the estimate from Player Y from my group)

Please also consider the possibility that Player Y might have failed to retain the 1,000 points for your group. In this case, your group receives 0 points in total.

How many points do you receive according to Procedure 2? (minimum: 0, maximum: 500)

How many points does Player Y from your group receive according to Procedure 2? (minimum: 0, maximum: 975)

Please assume for the following question that Player Y retained the 1,000 points for your group.

How are the points distributed according to Procedure 2 if option 16 is chosen for your group? (you receive: 125, Player Y from your group receives: 875)

Your Situation: Comprehension Questions

You have answered all questions correctly! You can now look at the correct answers again. Afterward, please click "Continue."

4 Task

Your Task: Overview

Thank you for answering the comprehension questions.

You now know the possible payoffs that you and Player Y from your group can receive in this study. Which option is possibly implemented for your group is not decided by you. Instead, you depend on the decisions of the players from Group 5.

Reversely, you and Player Y from your group will make decisions that will possibly be implemented for the players from Group 7. You will make the same types of decisions for Group 7 that the players from Group 5 make for your group.

- In Procedure 1, Player X from Group 7 is in the same position as you are in your group.
- In Procedure 2, Player Y from Group 7 is in the same position as you are in your group.

The other player is in the position of Player Y in your group.

On the following two pages, we will explain exactly which decision you have to make and which options you have.

Your Task: Procedure 1

Please carefully read how the decision for Procedure 1 works that you, as a player from Group 6, make for the players from Group 7.

For Group 7, there are different possible combinations of points that Player X and Player Y from this group can receive in Procedure 1. In total, Player X and Player Y can receive between 400 and 1,000 points. Player X can receive between 200 and 990 points. Player Y can receive between 10 and 200 points.

- For some options, there are more points for Player X and Player Y in total, in others less.
- The more points Player X receives, the fewer receives Player Y.
- The more points Player X and Player Y receive in total, the *more* points Player X receives and the *fewer* points Player Y receives.

There are 20 options for distributing the points between Player X and Player Y from Group 7.

Option #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Player X	200	300	385	460	525	585	640	690	735	775	811	843	871	896	918	937	953	967	979	990
Player Y	200	190	180	170	160	150	140	130	120	110	100	90	80	70	60	50	40	30	20	10
Total	400	490	565	630	685	735	780	820	855	885	911	933	951	966	978	987	993	997	999	1,000

Every column of the table shows one possible combination of points for Player X and Player Y from Group 7. The farther right the column, the more Player X and Player Y receive in total, and the larger the difference between the number of points that Player X and Player Y receive becomes.

Examples

- Option 1 means that Player X receives 200 points, and Player Y also receives 200 points.
- Option 20 means that Player X receives 990 points, and Player Y receives 10 points.

Your Task: Procedure 2

Please carefully read how the decision for Procedure 2 works that you, as a player from Group 6, make for the players from Group 7.

Points for Group 7

At the beginning of the study, the players from Group 7 answered an estimation task. All other participants answered the same estimate task. One player from Group 7 will be compared to a player from Group 1—with which the group is otherwise not concerned—at the end of the study. The player from Group 7 that has randomly been selected for the comparison is Player X.

- If Player X from Group 7 has estimated more accurately than the player from Group 1, the group receives 1,000 points.
- If Player X from Group 7 has estimated less accurately than the player from Group 1, the group receives no points.
- The estimate by Player Y from Group 7 has no consequences for the group.

"To estimate more accurately" means that the estimate by a player deviates less from the true amount of dots than the estimate by another player. In case the estimates of the two players are the same, the winner is determined randomly. How many points Group 1 receives will be determined by a different comparison of estimates.

How many points Group 7 receives in total, therefore, depends on Player X from the group but not on Player Y.

Distribution of points

In case Player X retains the 1,000 points for the group, the distribution of the points has to be decided. There are 20 options for distributing the points between Player X and Player Y from Group 7.

Every column of the table shows one possible distribution of points between Player X and Player Y from Group 7. The farther right the column, the more the player who retained the points for the group with his or her estimate (Player X) receives. The other person (Player Y) receives accordingly less. The total number of points is always the same.

Examples

• Option 1 means that in Group 7, Player X receives 500 points, and Player Y also receives 500 points.

• Option 20 means that in Group 7, Player X receives 975 points, and Player Y receives 25 points.

Your Task: Comprehension Questions

To make sure that you understood everything correctly about your task, please answer the following comprehension questions. To re-read the instructions, please click the respective tab.

How many points does Player X from Group 7 receive according to Procedure 1? (minimum: 200, maximum: 990)

How many points does Player Y from Group 7 receive according to Procedure 1? (minimum: 10, maximum: 200)

How are the points distributed according to Procedure 1 if you choose option 15 for Group 7? (Player X from Group 7 receives: 918, Player Y from Group 7 receives: 60)

On which of the two estimates from the players of Group 7 does it depend how many points the group receives in total according to Procedure 2? (only on the estimate by player X, only on the estimate from Player Y, on the estimates from Player X and Player Y)

Please also consider the possibility that Player X from Group 7 might have failed to retain the 1,000 points for the group. In this case, Group 7 receives 0 points in total.

How many points does Player X from Group 7 receive according to Procedure 2? (minimum: 0, maximum: 975)

How many points does Player Y from Group 7 receive according to Procedure 2? (minimum: 0, maximum: 500)

Please assume for the following question that Player X from Group 7 retained the 1,000 points for the group.

How are the points distributed according to Procedure 2 if you choose Option 5 for Group 7? (Player X from Group 7 receives: 600, Player Y from Group 7 receives: 400)

Your Task: Comprehension Questions

You have answered all questions correctly! You can now look at the correct answers again. Afterward, Please click "Continue."

4.1 Implementation of the Decisions

Implementation of the Decisions

Thank you for answering the comprehension questions!

At the end of the study, the computer will randomly decide which decisions will actually be implemented.

The exact selection of the decisions happens according to the following three steps:

- 1. For all groups jointly, one of the two procedures will be selected: Procedure 1 or Procedure 2
- 2. Among the groups ordered in a circle (1, 2, ..., 12, 1, 2, ...), every other group will be selected to make a decision: all groups with even numbers or all groups with uneven numbers.
- 3. Within each selected group, one player will be randomly determined, whose decision will be implemented for the respective following group.

For the points and consequences of the decisions in your group, therefore exist the following possibilities:

50% – One decision of Group 5 will be implemented for your group.

- If Procedure 1 is selected, you receive between 200 and 990 points and Player Y between 10 and 200 points.
- If Procedure 2 is selected and Player Y...
 - did not retain the 1,000 points for your group, you and Player Y from your group both receive 0 points.
 - retained the 1,000 points for your group, you receive between 25 and 500 points,
 and Player Y receives between 500 and 975 points.

25% – One decision from you will be implemented for Group 7.

• You receive 1,000 points, independent of all decisions made during today's study.

25% – No decision of you or made for you will be implemented.

• Your points will be determined by a different task, independent of your decisions.

Therefore, please keep in mind: All of your decisions can determine other players' payoffs. At the end of today's study, you will learn – apart from your payoff – how exactly your points were determined. All participants stay completely anonymous.

Comprehension Questions

To make sure that you understood everything correctly, please answer the following comprehension questions. To re-read the instructions, please click on the respective tab.

How many points will you receive if one of your decisions is implemented for the players of Group 7? (1,000)

Which of the two players can receive more points according to Procedure 1? (In your group: Player X (you), Player Y; in Group 7 (for which you decide): Player X, Player Y)

Which player's estimate does it depend on how many points the respective group receives in total according to Procedure 2? (In your group: estimate by Player X (you), on the estimate by Player Y; in Group 7 (for which you decide): on the estimate by Player X, on the estimate by Player Y)

Which of the two players can receive more points according to Procedure 2? (In your Group: Player X (you), Player Y; in Group 7 (for which you decide): Player X, Player Y)

Comprehension Questions

You have answered all questions correctly! You can now look at the correct answers again. Afterward, please click "Continue."

5 Decisions

Your Decision: Overview

Thank you for answering the comprehension questions!

You now have all the necessary information to make your decisions four Group 7. We start with Procedure 1. Your decision for Procedure 2 will follow directly afterward.

Your Decision: Procedure 1

Please make your decision for Group 7 for Procedure 1.

The more points Player X and Player Y receive *in total*, the larger the difference between the individual numbers of points becomes.

$\mathbf{Option}\ \#$	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Player X Player Y																				
Total	400	490	565	630	685	735	780	820	855	885	911	933	951	966	978	987	993	997	999	1,000
Decision	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Your Decision: Procedure 2

Please make your decision for Group 7 for Procedure 2.

Reminder: Your decision is only relevant if *Player X* won the 1,000 points for Group 7.

$\mathbf{Option}\ \#$	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	2 0
Player X																				
Player \mathbf{Y}	500	475	450	425	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25
Decision	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6 Predictions

Your Prediction: Overview

Thank you for making your decisions!

After you have now made your decisions for Group 7, the next part will deal with how players from other groups have made comparable decisions. We are interested in your prediction regarding the following question:

Which options have other players on average chosen for groups such as Group 7?

By enquoteaverage, we mean the arithmetic mean of the chosen options 1 to 20. For example, if half of all participants had chosen Option 5, and the other half had chosen Option 15, the average would be 10 (the example has been selected randomly). We will ask for your prediction twice, once for Procedure 1 and once for Procedure 2.

Please remember the possibilities for your payment:

- With a probability of 50%, a decision from Group 5 for your group will be implemented.
- With a probability of 25% a, decision from you for Group 7 will be implemented.

With the remaining probability of 25%, you receive points for a good prediction. For this, one of your two predictions will be selected randomly and will then be compared to the actual decisions of players from other groups (i.e., not with your own decisions or the decisions from Player Y from your group). All considered decisions were made for groups

composed like Group 7 regarding the players' situations. The actually chosen options between 1 and 20 will be taken, and the (rounded) mean will be calculated. The closer your prediction is to the actual average, the more points you receive.

If the average of the actually chosen options...

- matches your prediction exactly, you receive 500 points.
- belongs to the four other options that are closest to your prediction, you receive 250 points.
- is further away from your prediction than what was mentioned above, you receive no points.

Your Prediction: Procedure 1

Please enter your prediction for Procedure 1.

Which option have other players chosen on average for groups such as Group 7?

Option #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Player X																				
Player Y	200	190	180	170	100	190	140	130	120	110	100	90	80	70	00	90	40	30	20	10
Total	400	490	565	630	685	735	780	820	855	885	911	933	951	966	978	987	993	997	999	1,000
Prediction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Your Prediction: Procedure 2

Please enter your prediction for Procedure 2.

Which option have other players chosen on average for groups such as Group 7?

Option #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Player X	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975
Player Y	500	475	450	425	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25
Prediction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

7 Questionnaires

Thank you for your prediction! Please answer a few more questions on the following screens.

How old are you?

What is your gender? (female, male, diverse)

Are you a university student? (yes, no)

If yes: to which area does your major belong?

Have you ever been enrolled in economics? (yes, no)

How much money (in \in) do you have available each month after all costs have been subtracted?

We will now ask you for your willingness to behave a certain way. Please use a scale from 0 to 10. 0 means "not at all" and 10 "completely." You can use any number between 0 and 10 to note where you are on the scale.

[Economic Preferences (qualitative questions of the Preference Survey Module)]

From: Armin Falk et al. 2016. The Preference Survey Module: A Validated Instrument for Measuring Risk, Time, and Social Preferences. IZA Discussion Paper 9674. Bonn: Institute for the Study of Labor

[Big Five (BFI-S)]

From: Jean-Yves Gerlitz and Jürgen Schupp. 2005. Zur Erhebung der Big-Five-basierten Persönlichkeitsmerkmale im SOEP. Dokumentation der Instrumententwicklung BFI-S auf Basis des SOEP-Pretests 2005. Research Notes 4. Berlin: Deutsches Institut für Wirtschaftsforschung (DIW)

[Interpersonal Reactivity Index]

From: Jean-Yves Gerlitz and Jürgen Schupp. 2005. Zur Erhebung der Big-Five-basierten Persönlichkeitsmerkmale im SOEP. Dokumentation der Instrumententwicklung BFI-S auf Basis des SOEP-Pretests 2005. Research Notes 4. Berlin: Deutsches Institut für Wirtschaftsforschung (DIW)

Other

In politics, it is often talked about "left" and "right." Where would you locate yourself on a scale from 1 for left and 10 for right?

From: European Social Survey. 2014. ESS Round 7 Source Questionnaire. ESS ERIC Headquarters, Centre for Comparative Social Surveys, City University London, London, United Kingdom

A tram is out of control and is about to hit five people. By changing a track switch, the tram can be rerouted to another track. Unfortunately, there is another person on that track. Should it be allowed to accept the death of one person (by changing the track) to save the lives of five people? (yes, no)

[https://de.wikipedia.org/wiki/Trolley-Problem; accessed in May 2020]

From: Philippa Foot. 1967. "The Problem of Abortion and the Doctrine of Double Effect". Oxford Review 5:5–15

How much can we rely on your answers in the question naires? (1: not at all, 10: completely) $\,$

Open Questions

How did you make your decision for Procedure 1?

How did you make your decision for Procedure 2?