C Online Appendix 2

Experimental Instructions

Thank you for participating in this experiment.

You will be participating in an experiment on voting.

You will be assigned to a group.

Your group will be randomly re-assigned each round.



Your group will decide by majority voting which of two boxes hides a prize.



Regardless of how you voted:

If the group finds the prize, each member earns 100 points. If not, each member earns 0.

The experiment will be in 2 parts of 20 rounds each.

At the end of each part, 2 rounds will be randomly drawn, and the points you earned in those rounds will be converted into monetary earnings.

The conversion rate from points to dollars is: 100 points = \$7.

Your final earnings will also include the show-up fee of \$5.

We begin with the instructions for Part 1.

During the instruction you are unmuted. Please ask questions if you have any.

In part 1 you will be in a group with 4 other people.

At the start of the round, the prize will be randomly placed in one of your group's boxes.

There is an **equal chance** of the prize being placed in either box.



Before voting, you will receive a **private** message on your computer screen.

The message will say either "the prize is in the **green** box" or "the prize is in the **purple** box."

The prize is in the green box

OR

The prize is in the purple box

In each group **one person** will be the best informed.

If you are the **best informed person**, your message has a **70%** chance of being correct.

If you are **not the best informed person**, your message will be correct with some probability between **50%** and **70%**. In each round, you will be told this probability. This probability refers to you only and does not tell you anything about the probabilities for the other participants. All you know is that such chances are always between 50% and 70%.

The best informed person is chosen **randomly** by the computer.



If you are not the best informed person, the probability that your message is correct is **randomly** chosen.

Each probability in the range is equally likely.



Message

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and 70%.

You win 100 points if your group opens the correct box.

This is round 1/7

You are **not** the best informed person. Your message has a **63%** chance of being true.





Message

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and 70%.

You win 100 points if your group opens the correct box.

This is round 1/7

You are the best informed person. Your message has a 70% chance of being true.



After messages are read, every member of the group votes on which box to open.

If you **are** the best informed person, you can vote for the **green box** or vote for the **purple box**.

If you are **not** the best informed person, you can vote for the **green box**, vote for the **purple box**, or **give your vote** to the best informed person.

The best informed person will then cast together their vote and all votes given to them.

Voting

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and 70%.

You win 100 points if your group opens the correct box.

This is round 1/7

You are not the best informed person. Your message has a 63% chance of being true.

Your message said "The prize is in the green box"

What do you want to do?

| Vote for green | Vote for purple | Give vote to best |
|----------------|-----------------|-------------------|
| box | box | informed person |

Voting

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and 70%.

You win 100 points if your group opens the correct box.

This is round 1/7

You are the best informed person. Your message has a 70% chance of being true.

Your message said "The prize is in the purple box"

What do you want to do?



After voting, the box that received the most votes will be opened.

You will be told

- which box your group chose,
- which box contained the prize,
- how many votes the best informed person had and how they voted,
- and how many voters voted for each box

Results

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and

70%.

You win 100 points if your group opens the correct box.

Your group did not find the prize.

Your message said "The prize is in the purple box," and it had a 70% chance of being correct.

You voted for the **purple** box.

Your group chose the **purple** box.

The prize was in the green box: you won 0 points.



You received 1 extra vote and voted for the purple box.

The other voters cast 1 vote for the green box and 2 votes for the purple box.

This will complete the first round.

You will then move to round 2.

In every new round, groups will be re-formed randomly, but always composed of 5 people.

Each group is assigned a green and a purple box, and a prize. In every new round, a prize is hidden in one of the two boxes, with equal probability.

Within each group, the best informed person will be selected randomly by the computer.

Each group plays separately: what happens in one group has no effect on the others.

Part 1 consists of 20 rounds.

SUMMARY: Part 1 (20 rounds)

Your group has **5 people** and votes over which box, green or purple, contains a prize.

Before voting, each person receives a message. One randomly chosen person has the best information.

The message of the **best informed person** has a **70% chance** of being correct.

Each message of the **other group members** has a **chance** of being correct that is equally likely to take any value between **50%** and **70%**.

You **vote for one of the boxes**, or, if you are not the best informed person, you can **give your vote to them**.

The box with the most votes is opened.

Each group member wins **100** points if the box contains the prize, and **0** points if not.

Groups are randomly re-formed at the end of each round.





SUMMARY: PART 1







Part 2

The only difference is that it is now **impossible to give votes to the best informed person.**

As before, the best informed person will vote for either the **green** or the **purple** box. But will cast **their own vote only**.

The other group members, who are not the best informed, can either vote for the green box, vote for the purple box, or can choose to abstain and not cast any vote.

The screen that reports the results of the vote will also tell you how many people in your group abstained.

Voting

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and 70%.

You win 100 points if your group opens the correct box.

This is round 1/7

You are not the best informed person. Your message has a 62% chance of being true.

Your message said "The prize is in the green box"

What do you want to do?



If the two boxes receive the same number of votes, the tie will be randomly broken by the computer: the computer will be equally likely to choose either box.

Everything else remains unchanged.

Results

Your group has 5 members and 1 of them is best informed.

The message of the best informed person has a 70% chance of being correct; for the others, the chance is equally likely to take any value between 50% and

70%.

You win 100 points if your group opens the correct box.

Your group did not find the prize.

Your message said "The prize is in the purple box," and it had a 66% chance of being correct.

You voted for the **purple** box.

Your group chose the green box.

The prize was in the purple box: you won 0 points.



The best informed person voted for the **purple** box.

1 person abstained.

The other voters (including you) cast 2 votes for the green box and 1 vote for the purple box.

Part 2 will last 20 rounds.

Remember that:

- Groups are reshuffled each round.
- A new best informed person is chosen randomly each round.
- Each group of 5 people has its own green and purple boxes, and the prize is put randomly in one of the two boxes each round.
- You vote for one of the boxes, or, if you are not the best informed person, you can not vote.
- The group selects the box that receives the most votes.
- If the box contains the prize, every group member earns **100 points**, regardless of their vote or abstention.
- If the two boxes receive the same number of votes, the tie is broken **randomly**.

SUMMARY: PART 2



Part 3

Part 3 is very similar to Part 2.

The difference is that there is now a single group of 15 people, only 2 boxes, one green one purple, and a single prize.

Of these 15 people, **3 will be chosen randomly** by the computer each round and will be the **best informed.**

All 15 people vote together, to choose either the green or the purple box.

Part 3 will last 20 rounds.

Remember that:

- There is a single group of 15 people.
- 3 new best informed persons are chosen randomly each round.
- The prize is put randomly either in the **green** or in the **purple** box each round.
- You vote for one of the boxes, or, if you are not a best informed person, you can not vote.
- The group selects the box that receives the most votes.
- If the box contains the prize every group member earns **100 points**, regardless of their vote or abstention.
- If the two boxes receive the same number of votes, the tie is broken **randomly**.

SUMMARY: PART 3



Part 4

The difference is that now, as in Part 1, if you are **not a best informed person**, you can either **vote** (for the **green** or for the **purple** box) or **you can give your vote** to one of the best informed persons.

As in Part 3, there is a single group of 15 people, with 3 randomly chosen best informed persons each round, 2 boxes, one green and one purple, and a single prize for the group to find.

If you decide to give your vote to a best informed person, it will be equally likely to be given to any of the experts.

Part 4 will last 20 rounds.

Remember that:

- There is a single group of 15 people.
- 3 new best informed persons are chosen randomly each round.
- The prize is put randomly either in the **green** or in the **purple** box each round.
- You vote for one of the boxes, or, if you are not a best informed person, you can give your vote to them.
- The group selects the box that receives the most votes.
- If the box contains the prize every group member earns **100 points**, regardless of their individual decision.

SUMMARY: PART 4







Welcome and thank you for participating! The experiment consists of two parts.

Press any key to begin.
In this part, you will be asked to solve a visual task. You will see on your screen a number of white dots moving on a black background.

The dots will appear in your screen for 1 second. After that, you will be asked to give your answer.

You must press [F] if you think the dots were moving to the *LEFT* or [J] if you think the dots were moving to the *RIGHT*.

Press [F] to continue.

Several of these dots will be moving at random, but a number of them will all be moving in the same direction, either towards the *LEFT* or towards the *RIGHT*.

Your task will be to decide whether this coherent movement is *LEFT* or *RIGHT*.

The dots will appear in your screen for 1 second. After that, you will be asked to give your answer.

You must press [F] if you think the dots were moving to the LEFT or []] if you think the dots were moving to the RIGHT.

Part 1 will be divided into 6 blocs, with a short interval between each. Each bloc corresponds to 20 tasks. At the end of the six blocs you will receive feedback on your frequency of correct answers.

For each correct answer, you will gain **1 point**.

You will receive **\$1 of bonus** for each **50 points** you gain during the experiment.

Press []] to continue.

Before starting, you're going to participate in **10 practice tasks.**

You will be provided immediate feedback on whether your answers are correct or not for the first 5 tasks. At the end of the 10 tasks, you will be informed of your overall performance.

These tasks do not count toward your final rewards.



[F] for *LEFT*.

[]] for *RIGHT*.

You have finished the practice rounds!

Your response was correct on 50% of the rounds.

Press [H] to continue.

You have finished the practice tasks.

This is a 20 second pause.

Please rest during this pause and do no other activities. Failure to do so might impact your performance and rewards.

This is a comprehension question. Please respond correctly so you can proceed.

What is Six times Six? (Answer in digits)



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You have finished Part 1!

Your response was correct on 45% of the tasks in the first block. Your response was correct on 70% of the tasks in the second block. Your response was correct on 45% of the tasks in the third block. Your response was correct on 45% of the tasks in the fourth block. Your response was correct on 30% of the trials in the fifth block. Your response was correct on 50% of the trials in the sixth block.

Press [H] to continue.

In this part of the experiment, you will once again complete the visual task from Part 1 several times. As in Part 1, there will be six blocs, each of 20 tasks.

You will also participate in a collective decision process. You will be part of a group of 5 people.

After you have solved the task, your group will also collectively decide whether the coherent motion of the dots is to the LEFT or to the RIGHT.

You will have the chance to vote for the direction you have indicated.

The group's choice will correspond to the majority of the votes.

For example, if the majority of the votes are cast for the *RIGHT*, the group decides that the dots are moving to the *RIGHT*.

After solving the task, you can either vote for the direction in which you believe the dots are moving, or delegate your vote to an "expert".

Expert is the participant who, among the group of 5, had the highest success rate in the two blocs of the task before the one you are playing.

You will be able to press [V] or [N].

If you press [V] your vote will count as one vote in the direction you indicated during the task. If you press [N] your vote will be cast by the expert.

If it turns out you are the expert yourself, your choice to delegate will be ignored.

Like you, everyone in your group will have the same opportunity to delegate their vote. If they do so and they are not the expert, their vote will be given to the expert.

The expert casts their vote and all votes assigned to them in the direction they indicated during their task.

In this second part, you will be rewarded both for your own individual performance and for your group's performance.

Each time you report the correct direction during the task, you earn **1 point**. *This is regardless of whether you later decide to delegate your decision or not.*

Each time your group decides on the correct direction, you will earn **1 point**. This is regardless of whether you personally chose the correct direction or not. Remember that you will receive **\$1 of bonus** for each **50 points** you gain during the experiment.

Like Part 1, Part 2 will be divided into 6 blocs.

Each bloc will consist of 20 rounds, where a round now includes both the visual task and the group voting decision. There will be a short break between the blocs.

> At the end of Part 2, you will receive feedback on your individual performance. The group's performance will be calculated when all replies have been collected.

To familiarize yourself with this second part, you will now complete 10 training rounds.

You will be provided immediate feedback on whether your answers are correct or not for the first 3 tasks. At the end of the 10 tasks, you will be informed of your overall performance. **These rounds do not count toward your final rewards.**

[F] for *LEFT*.

[]] for *RIGHT*.

You chose *LEFT*.

Press [V] to cast your vote.

Press [N] to delegate your vote.

You pressed [V] - you cast your own vote!

On average, what percentage of trials in this second part do you think **you** got right?

0%

10

5

15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90

95 100%

You will receive an **additional bonus of \$0.25** if your answer is **within 5%** of the correct value.

Answer

On average, what percentage of trials in this second part do you think *the experts* got right?

You will receive an additional bonus of \$0.25 if your answer is within 5% of the correct value.

Answer

You have finished Part 2!

Your individual response was correct on 50% of the tasks in the first block. Your individual response was correct on 65% of the tasks in the second block. Your individual response was correct on 50% of the tasks in the third block. Your individual response was correct on 55% of the tasks in the fourth block. Your individual response was correct on 55% of the trials in the fifth block. Your individual response was correct on 55% of the trials in the fifth block.

Press [H] to continue.

You have finished the experiment!

Please write down your individual identification code: 626529

You have earned \$2.46 as a bonus from your individual performance. Your bonus earnings from the performance of your group will computed once all answers have been collected.

Please use the following box to provide any information or feedback you might think important.

After clicking continue, your results will be sent to our servers. Once the next screen is blank, you may close this tab.

Thank you for participating!

Continue