

Moderating (Mis)information Lab Experiment (excerpt)

A Sample Instructions

Welcome

No Talking Allowed

Once the experiment begins, we request that you not talk until the end of the experiment. If you have any questions, please raise your hand, and an experimenter will come to you.

Payment

For today's experiment, you will receive a show-up fee of \$5. All other amounts will be denominated in Experimental Francs (*EF*). These Experimental Francs will be traded in for Dollars at a rate of $145EF = \$1$.

Stages

This experiment will be conducted in two stages. At the beginning of each stage:

1. Five individuals from the room would be randomly matched to form a group.
2. Each group member will be randomly assigned a Subject ID – A, B, C, D, or E.
3. Each group member will be assigned a whole number, p , which is randomly chosen between 0 *EF* and 100 *EF*. Any number between 0 *EF* and 100 *EF* has the same chance of being selected. It is independently drawn for each group member. Therefore, the draw of p for one group member is not affected by those of the other members of the group. Each group member knows their own p , but not those of the other group members.

In each stage, everyone in the group will make decisions for at least 5 rounds. There is a 90% chance there will be a sixth round. If there is a sixth round, there is a 90% chance there will be a seventh round, and so on. Thus, at the end of each round (after the fifth round) there is a 90% chance that there will be at least one more round.

You can think of this as the computer rolling a 10 sided dice at the end of each round after the fifth round. If the number is 1 through 9 there is at least one more round. If the number is 10 then the stage end.

Round overview

Each round will consist of the following sequence:

1. **Jar Assignment:** Each group is randomly assigned either a Brown Jar or a Purple Jar. The color of the jar will not be known by any group member.
2. **Buying Information:** Each group member has the option to buy information about the color of the Jar that has been randomly assigned.
3. **Connections:** Each group has a message board. Each group member has the option to follow other members of the group on this message board.
4. **Post Choice:** After making connection decisions, each group member will have a choice regarding whether or not to post information.
5. **Post Creation:** Each group member who has opted to post information determines the content of their post for the message board.
6. **Viewing and fact-checking posts on the message board:** Each group member will observe the posts of those group members they are following, provided they have decided to make a post.

Each group member has the option to Fact-Check the accuracy of any Post they observe on the message board at a cost (*Peer to Peer protocol*). In addition, there is a 20% chance that the computer automatically Fact-Check each group member's Post (*Platform and Peer to Peer and Platform protocols*).
7. **Results from Fact-Checking:** If a group member's Post is Fact-Checked the results of the Fact-Check will be observed by all group members who observe the Post.
8. **Vote:** Each group member casts a vote for either Brown or Purple. The color that gets three or more votes is the group decision.

Decision Environment & Choices

All Treatments

Jar Assignment

At the beginning of every round, the computer will randomly assign one of two options as the correct Jar for each group: the Brown Jar or the Purple Jar. In each round, there is a 50% probability that the Jar assigned to a group is the Brown Jar and a 50% probability that the Jar assigned to a group is the Purple Jar. The computer will choose the Jar randomly for each group and separately for each round. Therefore, the chance that your group is assigned the Brown Jar or the Purple Jar shall not be affected by what happened in previous rounds or by what is assigned to other groups. The choice shall always be completely random in each round, with a probability of 50% for the Brown Jar and 50% for the Purple Jar.

Voting Task

Each group member will decide between one of the two colors: Brown or the Purple. Specifically, at the end of each round, the group will simultaneously vote for either Brown or Purple. The group decision will be determined by the color which gets three or more votes.

Payoff from voting

The payoff from voting that each group member earns in the round depends on the outcome of the vote. There are two parts to this payoff.

Part A

Remember that at the start of each stage, each group member is assigned a whole number, p , which is randomly chosen between $0EF$ and $100EF$. Any number between $0EF$ and $100EF$ has the same chance of being selected. It is independently drawn for each group member. Therefore, the draw of p for one group member is not affected by the draw of p of the other members of their group. Each group member knows their own p , but not those of their other group members. Remember that the value of p assigned to each group member remains fixed within each stage but is randomly assigned in each stage.

Each group member gets $p EF$ if the group votes for Brown, and $100 - p EF$ if the group votes for Purple.

his payoff does not depend on the color of the Jar, which is randomly assigned at the start of each round. Notice that this means that each group member is likely to get a different payoff if Brown wins the vote because each group member is likely to have a different p . Similarly, each group member is likely to get a different payoff if Purple wins the vote.

Part B

If the color chosen by the vote matches the color of the Jar that was randomly assigned at the start of the round, each group member gets a payoff a payoff of $50 EF$.

Example 1: Suppose you are assigned $p = 70$, Purple is the color chosen by the vote, and the color of the Jar that is randomly assigned to your group is Purple.

Since you're assigned $p = 70$, your payoff from **Part A** is: $100 - 70 = 30\text{EF}$.

Since the color of the Jar assigned to your group is the same as the color chosen by your group in the vote, your payoff from **Part B** is: 50EF .

Thus, your total payoff from the voting task is: 80EF

Example 2: Suppose you are assigned $p = 70$, Brown is the color chosen by the vote, and the color of the Jar that is randomly assigned to your group is Purple.

You earn 70EF from the voting task.

Since you're assigned $p = 70$, your payoff from **Part A** is: 70EF .

Since the color of the Jar assigned to your group is NOT the same as the color chosen by your group in the vote, your payoff from **Part B** is: 0EF .

Thus, your total payoff from the voting task is: 70EF .

Buying Information

Remember that none of the group members know the color of the Jar that has been randomly assigned to a group prior to voting on a color. Each group member has an option to buy multiple units of information.

If a group member purchases information, he/she will observe a Report, which is either Brown or Purple. The probability that the color of this Report is the same as the color of the Jar depends on how many units of information the group member purchases.

Each group member can buy any number of units between 0 and 9 (in increments of one unit). If a group member buys a single unit of information, their Report is correct 55% of the time. If a group member purchases two units of information, their Report is correct 60% of the time. Each additional unit of information that a group member purchases increases the probability that their report is correct by 5

You can think of this process as the computer starts with a box with 50 Brown and 50 Purple balls. Each unit of information a group member purchases the computer adds 5 balls with the color of the Jar randomly assigned and removes 5 balls of the other color. The computer then mixes the balls and selects one randomly. The color of this selected ball is the color in the Report. So, for example, if a group member buys four units of information, the box from which the computer randomly selects a ball contains 70 balls with the color of the Jar which is randomly assigned and 30 balls of the other color. The cost of units of information is detailed in the table below.

Units	Probability Correct	Total Cost
1	55%	1
2	60%	2
3	65%	5
4	70%	8
5	75%	13
6	80%	18
7	85%	25
8	90%	32
9	95%	41

If a group member chooses not to buy any units of information, they do not get a Report.

Example:

Suppose you choose to buy 5 units of information and your Report is Brown. The cost of the 5 units of information is 13 *EF*, and there is a 75% chance the information is correct.

Connections

Only in Communication Treatments

At the start of each stage all group members are following each other on the message board. After each group member has decided how many units of information they wish to purchase, and viewed their Reports (when applicable), each group member decides who they would like to follow on the group's message board.

Each group member can only see Posts made by group members they are following. Each group member is identified by the Subject ID assigned to them at the beginning of each stage. Remember that the Subject ID assigned to each group member remains the same within a stage.

Note that if you follow a particular group member, but they do not follow you, then they do not see your posts.

Post Choice

After connection decisions have been made, each group member is shown:

1. Group members they are following.
2. Group members who are following them.

Each group member then chooses whether or not to make a Post.

Post Creation

Each group member who has opted to make a post determines the following contents of their post:

1. p randomly assigned to the group member.
The group member can input a number between 0 *EF* and 100 *EF*. Their Post will state that the inputted number is the value of p assigned to them. Note that the number imputed does not have to be equal to their p . He/She can also opt not to input a number.
2. Units of information the group member purchased.
Each group member states the number of units of information they purchased. He/She can input any whole number between 0 and 9. Note that the number they state does not have to be equal to the actual number of units of information they purchased.
3. The group member states the color of their Report, if they state they have purchased one or more units of information. Notice that the color they state does not have to equal the actual color of their Report.

Viewing posts on the message board

Each group member will observe the Posts of those they are following, provided they decided to make a Post.

Each group member then has the option to Fact-Check the accuracy of any of these Posts. It costs 5EF to fact-check a Post. (*Peer to Peer protocol*)

In addition, there is a 20% chance that the computer automatically Fact-Check each group member's Post. (*Platform protocol*)

If a Post is Fact-Checked, the computer will check the accuracy of the following information stated in the Post:

1. The number of units of information purchased.
2. The color of the Report, if the Post states that any units of information were purchased.

Note: A Fact-Check does not verify ☒.

Results from Fact-Checking

The results from any Fact-Check will be displayed with the Post, and will be observed by anyone who is able to observe the Post. These results will be displayed before the group votes.

If a group member's Post is Fact-Checked, the results of the Fact-Check will be displayed with the Post. The result will state whether the Post is Accurate or Inaccurate. (*Flagging*)

In addition, if a Post is Inaccurate the next two subsequent Posts shared by this group member will be automatically Fact-Checked by the computer. (*Persistent Scrutiny*)

Example 1: Suppose your assigned Subject ID is C and you choose to follow Subjects B, D, and E, and not follow Subject A. Further suppose only Subject A and Subject B chose to create Posts. Since you are following Subject B, you will see their Post. Since you are not following Subject A, you will not see their Post. Suppose you decide to Fact-Check the accuracy of the information in the Post created by Subject B. You and everyone following Subject B will be able to see the results from the Fact-Check before the group decides to vote.

Example 2: Suppose your assigned Subject ID is C, and Subjects A and E choose to follow you, while Subjects B and D choose not to follow you. Further suppose that you decide to make a Post. Subjects A and E will see your Post, while Subjects B and D will not see your Post. Suppose neither A nor E choose to Fact-Check your post, but the computer randomly Fact-Check the accuracy of your post. The results from the Fact-Check will be available to both Subjects A and E before the group decides to vote.

Vote

After all group members observe the Fact-Checking results (if any) on the group message board, each group member casts a vote for either: Brown or Purple.

Each group cast their vote without knowing the votes of the other members of their group.

The computer sums up the number of votes for Brown and for Purple. The color which receives three or more votes is the group's decision.

Final Payoff

Each group member's final payoff for the round is given by: **Peer to Peer protocol and Peer to Peer and Platform Protocol**

$$\text{Final Payoff} = \text{Payoff from Voting} - \text{Total cost of buying information} - \text{Cost of Fact-Checking}$$

Platform protocol

$$\text{Final Payoff} = \text{Payoff from Voting} - \text{Total cost of buying information}$$

Remember that the payoff of each group member in the round depends on the outcome of the vote, and the number of units of information they purchased.

Remember that there are two parts of the payoff from Voting:

Part A: Each group member gets $p EF$ if the group votes for Brown, and $100 - p EF$ if the group votes for Purple. This payoff does not depend on the color of the Jar, which is randomly assigned at the start of each round.

Part B: If the group's decision matches the color of the Jar that was randomly assigned at the start of the round, each group member gets a payoff of $50 EF$.

The cost of Fact-Checking each post is $5 EF$ (*Only in Peer to Peer*). The cost of information depends on the number of units of information purchased. The table below contains these costs.

Units	Probability Correct	Total Cost
1	55%	1
2	60%	2
3	65%	5
4	70%	8
5	75%	13
6	80%	18
7	85%	25
8	90%	32
9	95%	41

Example: Suppose you are assigned $p = 70$, the group's decision is Purple, and the color of the randomly assigned jar is Purple. Further suppose that you purchased 5 units of information and got a Brown Report. Suppose in addition, you chose to Fact-Check one Post.

Your final payoff for the round is 62 *EF*. You get 30*EF* from the group's decision being Purple (Part A) plus you 50 *EF* since the group's decision matched the color of the randomly selected jar (Part B) *minus* 13 *EF* for buying 5 units of information *minus* 5 *EF* for Fact-checking one Post.