

General Instructions *(all treatments)*

Welcome to the Economics Laboratory.

Your earnings from the experiment will largely depend on your decisions and the decisions of others. Therefore, it is important that you read the instructions carefully.

Throughout the experiment, we will not speak of USD, but rather of ECU (Experimental Currency Units). At the end of the experiment the total amount of ECU you earned will be converted to USD at the **exchange rate ECU 1 = USD 0.03**. You will also receive a **show up fee of USD 10**. You will be paid your earnings in cash, privately at the end of the session.

All interactions between you and other participants will occur through the computer terminals. Please do not talk directly to or attempt to communicate with other participants during the session. Please also do not ask questions aloud. If you have a question, raise your hand and a member of the experimenter team will come to you. All personal electronic devices should remain switched off until the end of the experiment.

The experiment consists of two parts. Once the first part is over, you will receive instructions for the second part.

Instructions for Part 1 (Baseline)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 4 ECU for each participant in your matching group (i.e., the group of 20 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the

participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant * 4 ECU) = 26 ECU. The person choosing **GREEN** will “earn” 20 ECU *minus* (19 participants * 4 ECU) = - 56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 30 ECU *minus* (18 participants * 4 ECU) = -42 ECU. The other participant will earn 30 ECU *minus* (2 participants * 4 ECU) = 22 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (10 participants * 4 ECU) = -20 ECU. The person choosing **GREEN** will earn 30 ECU *minus* (10 participants * 4 ECU) = -10 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____

Instructions for Part 1 (*Low Penalty*)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 1 ECU for each participant in your matching group (i.e., the group of 20 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant

* 1 ECU) = 29 ECU. The person choosing **GREEN** will earn 20 ECU *minus* (19 participants * 1 ECU) = 1 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 30 ECU *minus* (18 participants * 1 ECU) = 12 ECU. The other participant will earn 30 ECU *minus* (2 participants * 1 ECU) = 28 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (10 participants * 1 ECU) = 10 ECU. The person choosing **GREEN** will earn 30 ECU *minus* (10 participants * 1 ECU) = 20 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____

Instructions for Part 1 (Small Group)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 10. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 9 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 8.44 ECU for each participant in your matching group (i.e., the group of 10 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant

* 8.44 ECU) = 21.55 ECU. The person choosing **GREEN** will “earn” 20 ECU *minus* (9 participants * 8.44 ECU) = -56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 30 ECU *minus* (8 participants * 8.44 ECU) = -37.55 ECU. The other participant will earn 30 ECU *minus* (2 participants * 8.44 ECU) = 13.11 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 5 participants in your matching group choose **GREEN** and 5 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (5 participants * 8.44 ECU) = -22.22 ECU. The person choosing **GREEN** will earn 30 ECU *minus* (5 participants * 8.44 ECU) = -12.22 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 2 players choose **BLUE** and 8 players choose **GREEN**. What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 8 players choose **BLUE** and 2 players choose **GREEN**. What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____

Instructions for Part 1 (Poll)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 4 ECU for each participant in your matching group (i.e., the group of 20 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant

* 4 ECU) = 26 ECU. The person choosing **GREEN** will “earn” 20 ECU *minus* (19 participants * 4 ECU) = -56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 30 ECU *minus* (18 participants * 4 ECU) = -42 ECU. The other participant will earn 30 ECU *minus* (2 participants * 4 ECU) = 22 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (10 participants * 4 ECU) = -20 ECU. The person choosing **GREEN** will earn 30 ECU *minus* (10 participants * 4 ECU) = -10 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

Poll after round 13

After round 13 and before the start of round 14, all participants in your matching group (including you) will be asked the following question:

*“What color would you prefer people in your matching group chose in the next rounds: **BLUE** or **GREEN**?”*

Responses to the poll neither bind participants’ choices in subsequent rounds nor do they affect directly their earnings from the experiment. That is, (i) you will not incur a penalty if you state you prefer a different color than others do in the poll, and (ii) you can choose a different color in subsequent rounds than the one you stated as your preferred color in the poll.

Once all participants have stated their preferred colors for the next rounds, all participants will be informed about **how many participants in their matching group responded **BLUE** and **GREEN****. After the results from the poll have been announced, the experiment will continue with round 14.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%
- g. After which round will the poll take place? Round _____

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____

- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____
- e. I have to choose the same color as the one I state in the poll in subsequent rounds: _____
- f. My decision in the poll will not affect my earnings from the experiment directly: _____

Instructions for Part 1 (*High Return*)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **50 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 4 ECU for each participant in your matching group (i.e., the group of 20 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the

participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant * 4 ECU) = 26 ECU. The person choosing **GREEN** will “earn” 20 ECU *minus* (19 participants * 4 ECU) = - 56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 50 ECU *minus* (18 participants * 4 ECU) = -22 ECU. The other participant will earn 30 ECU *minus* (2 participants * 4 ECU) = 22 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (10 participants * 4 ECU) = -20 ECU. The person choosing **GREEN** will earn 50 ECU *minus* (10 participants * 4 ECU) = 10 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____

Instructions for Part 1 (*Fast Information*)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 4 ECU for each participant in your matching group (i.e., the group of 20 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant * 4 ECU) = 26 ECU. The person choosing **GREEN** will “earn” 20 ECU *minus* (19 participants * 4 ECU) = - 56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 30 ECU *minus* (18 participants * 4 ECU) = -42 ECU. The other participant will earn 30 ECU *minus* (2 participants * 4 ECU) = 22 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (10 participants * 4 ECU) = -20 ECU. The person choosing **GREEN** will earn 30 ECU *minus* (10 participants * 4 ECU) = -10 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____

Instructions for Part 1 (*Endogenous Penalty*)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your first task in this part: Color choices

Your first task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (i) You both choose **BLUE**.
- (ii) You both choose **GREEN**.
- (iii) You choose **BLUE** and the other participant chooses **GREEN**.
- (iv) You choose **GREEN** and the other participant chooses **BLUE**.

Your second task in this part: Penalty choices

The second decision involves the amount by which you would like to reduce the earnings of the other participant, if you and the other participant choose different colors in this round (i.e. cases iii and iv above). As you will see below, your penalty choice will not affect your earnings or the other participant’s earnings if you and the other participant choose the same color.

You will choose between three options: **Small Penalty**, **Medium Penalty** and **Large Penalty**. You will make your choice simultaneously with the other participant you have been matched with and before you will know what color the other participant chose. Therefore, you will not know what the other person’s color and penalty choice is when you make your decision.

In the first round, the Medium Penalty will be preselected by the computer program, but you are free to change your choice to either Small Penalty or Large Penalty. In all subsequent rounds, the penalty choice of the previous round will be preselected.

Earnings

Three factors determine earnings in a given round of the experiment: *color choices*, *penalty choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants and depends on the penalty choices. In particular, the miscoordination penalty of the participant who is matched to you depends on your penalty choice as follows.

- If you choose Small Penalty, the earnings of the participant matched to you will be reduced by **1 ECU for each participant** in your matching group (i.e., the group of 20 participants) that chose a different color than the participant matched to you.
- If you choose Medium Penalty, the earnings of the participant matched to you will be reduced by **4 ECU for each participant** in your matching group that chose a different color than the participant matched to you.
- If you choose Large Penalty, the earnings of the participant matched to you will be reduced by **7 ECU for each participant** in your matching group that chose a different color than the participant matched to you.

Your own miscoordination penalty depends on the penalty choice of the participant who is matched to you.

- If the participant matched to you chooses Small Penalty, your earnings will be reduced by 1 ECU for each participant in your matching group that chose a different color than you.
- If the participant matched to you chooses Medium Penalty, your earnings will be reduced by 4 ECU for each participant in your matching group that chose a different color than you.
- If the participant matched to you chooses Large Penalty, your earnings will be reduced by 7 ECU for each participant in your matching group that chose a different color than you.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. You and the other participant choose Medium Penalty. All participants in your matching group choose **BLUE** except the participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant * 4 ECU) = 26 ECU. The person choosing **GREEN** will

“earn” 20 ECU *minus* (19 participants * 4 ECU) = - 56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. You choose Large Penalty and the other participant chooses Medium Penalty. Then you will earn 30 ECU *minus* (18 participants * 4 ECU) = -42 ECU. The other participant will earn 30 ECU *minus* (2 participant * 7 ECU) = 16 ECU.

Example 3: Assume you and the other participant are Type B and you choose **BLUE** and the other participant chooses **GREEN**. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. You choose Medium Penalty and the other participant chooses Small Penalty. Then you will earn 20 ECU *minus* (10 participants * 1 ECU) = 10 ECU. The other participant will earn 30 ECU *minus* (10 participants * 4 ECU) = -10 ECU.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. Notice that in this case your earnings and the earnings of the participant you are matched with will not depend on the penalty choices.
What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. Notice that in this case your earnings and the earnings of the participant you are matched with will not depend on the penalty choices.
What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.

Suppose you both choose Large Penalty.

What are your earnings in this round? _____ ECU

What are the other participant's earnings in this round? _____ ECU

Suppose you both choose Medium Penalty.

What are your earnings in this round? _____ ECU

What are the other participant's earnings in this round? _____ ECU

Suppose you both choose Small Penalty.

What are your earnings in this round? _____ ECU

What are the other participant's earnings in this round? _____ ECU

- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.

Suppose you both choose Medium Penalty.

What are your earnings in this round? _____ ECU

What are the other participant's earnings in this round? _____ ECU

Suppose you choose Small Penalty and the other participant chooses Large Penalty.

What are your earnings in this round? _____ ECU

What are the other participant's earnings in this round? _____ ECU

- f. What is the probability a Type A participant will change type in each round? _____%

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose **BLUE** than when I choose **GREEN**, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose **GREEN** than when I choose **BLUE**, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant: _____
- e. My decision whether the participant matched to me receives the Large, Medium or Small Penalty affects the other participant's earnings only if we both choose different colors. _____
- f. My miscoordination penalty depends on the color choices of all other participants in my matching group (i.e. the group of 20 participants). _____

Instructions for Part 1 (Reward)

Duration and matching

The first part of the experiment will last 31 rounds. **At the start of each round**, you will be **randomly matched** with another participant. This will be done as follows. All participants in the room will be divided into groups of 20. We will refer to this group as your “matching group”. At the beginning of each round, you will be matched at random to one of the other 19 participants in your matching group. You will never know the identity of the person with whom you are matched in a given round or of the people in your matching group.

Your task in this part

Your task in each round is to choose between two actions: **BLUE** or **GREEN**. At the same time, the participant you are matched with in this round also chooses **BLUE** or **GREEN**. Your earnings from a given round will depend partly on the actions you and the other participant with whom you were matched chose.

There are four possibilities

- (v) You both choose **BLUE**.
- (vi) You both choose **GREEN**.
- (vii) You choose **BLUE** and the other participant chooses **GREEN**.
- (viii) You choose **GREEN** and the other participant chooses **BLUE**.

Earnings

Two factors determine earnings in a given round of the experiment: *choices* and *participants' types*.

There are two types in the experiment: **Type A** and **Type B**. We will tell you precisely how types are determined below. For the time, it suffices to know that **all participants start off as Type A**.

A Type A participant receives **30 ECU** when they choose **BLUE** and **20 ECU** when they choose **GREEN**. A Type B participant receives **20 ECU** when they choose **BLUE** and **30 ECU** when they choose **GREEN**. If the other participant chooses the same color, these are the earnings in a given round.

However, every time you and the other participant choose **different colors** (i.e., cases iii and iv above) you both receive a “**miscoordination penalty**”. The penalty may differ for the two participants. In particular, the amount you will receive (see above) will be **reduced by 4 ECU for each participant in your matching group (i.e., the group of 20 participants) that chose a different color than you**. That is, the more people choose a different action than you, the greater will be your miscoordination penalty.

You will be informed about the number of participants who chose a different color than you with a delay of one round. Thus, if you and the player who is matched to you chose a different color, you will learn your exact payoff with a delay of one round.

Example 1: Assume you and the other participant are Type A. You choose **BLUE** and the other participant chooses **GREEN**. All participants in your matching group choose **BLUE** except the

participant you are matched with who chose **GREEN**. Then you will earn 30 ECU *minus* (1 participant * 4 ECU) = 26 ECU. The person choosing **GREEN** will earn 20 ECU *minus* (19 participants * 4 ECU) = - 56 ECU, that is, this participant will *lose* 56 ECU. All other participants in your matching group will earn 30 ECU if they are Type A and 20 ECU if they are Type B.

Example 2: Assume you are Type B and choose **GREEN**. The other participant is Type A and chooses **BLUE**. You and another participant in your matching group are the only ones choosing **GREEN**; the rest choose **BLUE**. Then you will earn 30 ECU *minus* (18 participants * 4 ECU) = -42 ECU. The other participant will earn 30 ECU *minus* (2 participants * 4 ECU) = 22 ECU.

Example 3: Assume you and the other participant are Type B and you choose different colors. Assume further that 10 participants in your matching group choose **GREEN** and 10 choose **BLUE**. Then the person choosing **BLUE** will earn 20 ECU *minus* (10 participants * 4 ECU) = -20 ECU. The person choosing **GREEN** will earn 30 ECU *minus* (10 participants * 4 ECU) = -10 ECU.

Your earnings from each round will be summed up and paid to you at the end of the session. If your earnings in this part are below 0 ECU, the amount will be subtracted from your total earnings in today's experiment and you may only earn the show up fee.

Type determination and implications for earnings

As mentioned above, **all participants start the experiment as Type A**. From round 2 onwards, in each round, there is a **10% probability** that each participant (including you) will **become a Type B**. The probability is independent for each participant. If your type changes to Type B you will be informed of this change, but you will not know whether the participant with whom you are matched has changed type or is still Type A. Once a participant becomes Type B, they do not change back to Type A.

Example 4: Suppose you have finished round 1 and round 2 is entered. You are informed that you are still Type A. What is the probability that the participant you are matched with is Type A and what is the probability they are Type B? Since the probability the other participant has changed his type is 10%, the probability for you to meet a Type A is high: 90%. The probability to meet a Type B is low: 10%.

Bonus at the end of round 31 for four participants

In addition to the earnings above, four participants will receive a **bonus** at the end of round 31. We will first explain the bonus and then how the four participants who receive bonuses are determined.

What will the bonus be? For each participant who receives a bonus, we will **increase his/her earnings to match the amount of ECU of the participant who has earned the most in the group of 20 participants over the 31 rounds**. For example, if person X has accumulated the highest amount of ECU over the 31 rounds, then the earnings of each participant who receives a bonus will be increased such that they are the same as the earnings of person X. If person X receives a bonus, his/her earnings remain unchanged, as s/he already has the highest earnings.

We next describe which four participants will receive a bonus. We explain this in four steps:

1. **The number of consecutive choices of a color (your score):** In each round, after you choose a color, the computer will check for how many *consecutive* rounds you have been choosing this color (without switching to the other color in between). This number will be referred to as your

“score”. For example, suppose we are in round 8 and you chose **BLUE** in rounds 1, 2, 3, 4 and 5, and **GREEN** in rounds 6, 7 and 8. Then your score is 3, due to the three consecutive choices of **GREEN** in rounds 6 to 8.

2. **The “top 4” of a color:** For each color, the four participants with the highest scores are referred to as the “top 4” of their color. For example, suppose that 17 participants choose **BLUE** and 3 participants choose **GREEN**. Then the “top 4” of **BLUE** in that round are the four participants with the highest scores among the 17 participants choosing **BLUE**. Since there are only 3 participants choosing **GREEN**, all of them are in the “top 4” of **GREEN**. If two or more participants have the same score, the computer will randomly determine the ranking between them. This ranking does not change across rounds if color choices remain constant. For example, if exactly 12 participants choose **BLUE** in all rounds 1 to 31, the “top 4” of **BLUE** will be randomly determined at the end of round 1 and will be the same in all coming rounds. Hence, as long as the four participants in the “top 4” of a color keep choosing that color, they will remain the “top 4” of that color. You will be informed (with a delay of one round) whether you are in the “top 4” of a color.
3. **The majority color in round 31:** Upon completion of the 31 rounds, the computer will check which color was chosen by the majority of the 20 participants *in round 31*. We refer to this color as the majority color. So, if **BLUE** is chosen by 11 or more participants in round 31, **BLUE** is the majority color. If **GREEN** is chosen by 11 or more participants in round 31, **GREEN** is the majority color. If both colors are chosen equally often (10 participants each), then neither color gets a majority and there will be no bonuses.
4. **Bonus:** The four bonuses go to the “top 4” of the majority color in round 31. In other words, a participant receives a bonus if, in round 31, s/he chose the majority color and has one of the four highest “scores” among all participants who chose the majority color in round 31. As you can see from these explanations, in order to receive a bonus a participant needs to be among the first four participants choosing the color that will be the majority color in round 31.

Example 5: Suppose that five participants chose **BLUE** and fifteen participants chose **GREEN** in round 31. Hence, **GREEN** is the majority color in round 31. Consider a participant who chose **GREEN** in rounds 2 to 5 and 22 to 31, and **BLUE** in the other rounds. This participant’s score in round 31 is 10, due to the consecutive choices of **GREEN** in rounds 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31. Note that the choices of **GREEN** in rounds 2, 3, 4 and 5 do not count for the score, because they were “interrupted” by the choices of **BLUE** in rounds 6 to 21. If a score of 10 places this participant in the “top 4” of **GREEN**, s/he will receive a bonus.

Recap:

1. Every ECU is worth \$0.03 in US dollars.
2. Every participant will be either a Type A or a Type B.
3. In round 1, every participant will be Type A. As long as you are Type A, **in each round** there is a 10% probability that you become Type B.
4. If you become a Type B, you will stay a Type B.

5. Type A's get 30 ECU from choosing **BLUE** and 20 ECU from choosing **GREEN**.
6. Type B's get 20 ECU from choosing **BLUE** and 30 ECU from choosing **GREEN**.
7. You will be paired with another participant each round.
8. If you both choose the same color, you will both get the value assigned to that color for your type.
9. If you choose different colors, however, you will pay a *miscoordination penalty*.
10. The **miscoordination penalty is 4 ECU for each participant** here today that chooses a different color than you.
11. In any given round, your "**score**" will be **the number of consecutive rounds** you have been choosing the same color as in the current round.
12. You are in the "**top 4**" of a color, if your score is among the four highest scores of all participants who are currently choosing this color.
13. The **majority color in round 31** is the color chosen by at least 11 of the 20 participants in round 31.
14. You will get a **bonus** if your "score" is in the "top 4" of the majority color in round 31.
15. The bonus will bring your earnings up to be **equal to the highest earnings** in the group here today.

This completes the description of the first part. If you have any questions, please raise your hand. Otherwise, please proceed to answer the questions on the next page. The purpose of the questions is to make sure that you understand the different elements of the experiment. Any unclear points will be explained by the experimenter. Once you have answered all the questions, please raise your hand and one of the experimenters will come and check your answers.

Questions

1. Please fill in the answers.

- a. You are Type A. You choose **BLUE** and the participant you are matched with chooses **BLUE**. What are your earnings in this round? _____ ECU
- b. You are Type A. You choose **GREEN** and the participant you are matched with chooses **GREEN**. What are your earnings in this round? _____ ECU
- c. How do the answers to the questions a. and b. above change if you were Type B?
1. _____ 2. _____
- d. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 4 players choose **BLUE** and 16 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- e. You and the participant you are matched with are Type B. You choose **GREEN** and the participant you are matched with chooses **BLUE**. In total, 16 players choose **BLUE** and 4 players choose **GREEN**.
What are your earnings in this round? _____ ECU
What are the other participant's earnings in this round? _____ ECU
- f. What is the probability a Type A participant will change type in each round? _____%
- g. In round 31, 19 participants chose **BLUE** and 1 participant chose **GREEN**. You chose **BLUE** in rounds 1 to 8 and 21 to 31.
What is your score in round 31? _____
What is the majority color in round 31? _____
Is it possible that you are in the "top 4" of **BLUE** in round 31? _____
Is it possible that you will receive a bonus? _____
- h. In round 31, 19 participants chose **GREEN** and 1 participant chose **BLUE**. You chose **BLUE** in rounds 1 to 8 and 21 to 31.
What is your score in round 31? _____
What is the majority color in round 31? _____
Is it possible that you are in the "top 4" of **GREEN** in round 31? _____
Is it possible that you will receive a bonus? _____

2. TRUE or FALSE?

- a. If I am Type A, I earn more when I choose BLUE than when I choose GREEN, irrespective of the other participants' choices: _____
- b. If I am Type B, I earn more when I choose GREEN than when I choose BLUE, irrespective of the other participants' choices: _____
- c. If I am matched with a Type B participant in round 2, I will always be matched with a Type B participant for the rest of the experiment: _____
- d. When making a choice in a given round, I will know my own type, but will not know the type of the other participant (except in round 1): _____
- e. I cannot get a bonus if in round 31 I choose a different color than the majority of the 20 participants: _____
- f. Suppose the highest earnings of a participant in your matching group accumulated over the 31 rounds is some number Z of ECU. Suppose GREEN is the majority color in round 31 and the highest five scores among the participants who chose GREEN in round 31 are 19, 15, 12, 7 and 6. Then the participants with scores 19, 15, 12 and 7 (the "top 4" of GREEN) will receive a bonus, that is, they will earn Z ECU. The participant with a score of 6 (and every other participant with a lower score or who chose the other color) will not receive a bonus: _____

Instructions for Part 2 *(all treatments)*

Instructions for Part 2

In this part of the experiment you will have to **choose one of six lotteries**. In the chosen lottery, you will either win \$X, or you will not win this amount, in which case you receive \$0. The six lotteries differ in the amount \$X you can win, as well as in their probability that you win the lottery.

Once you have chosen one of the six lotteries, the computer will randomly determine whether you win or not.

All profits will be added to your earnings from the previous part of the experiment.

Click on continue to proceed to the lotteries.

Please decide which lottery you would like to play. You can choose only one lottery.

In the chosen lottery, you will win the corresponding amount with the corresponding probability, or you will not win in which case your earnings do not change.

Lottery

- 1 8 in 10 chance of \$2.
- 2 7 in 10 chance of \$3.
- 3 6 in 10 chance of \$4.
- 4 5 in 10 chance of \$5.
- 5 4 in 10 chance of \$6.
- 6 3 in 10 chance of \$7.

Submit

Part 3.1 – Conformity Survey *(all treatments)*

You will be presented with 7 adjective pairs. For each pair, select one of the 5 buttons. The buttons from left to right mean that the adjective on the left-hand side describes you (1) better, (2) slightly better, (3) equally well, (4) slightly worse, (5) worse than the adjective on the right-hand side. That is, the closer your choice to an adjective, the better you think that adjective describes you as a person.

Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence.

compliant	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	defiant
resistant	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	acquiescent
agreeing	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	disagreeing
inflexible	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	adaptive
cooperative	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	uncooperative
opposing	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	accommodating
differing	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	concurring

Part 3.2 Big 5 and Psychological Reactance (all treatments)

Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I am the life of a party.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel little concern for others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am always prepared.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get stressed out easily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a rich vocabulary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find contradicting others stimulating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I don't talk a lot.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am interested in people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I leave my belongings around.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am relaxed most of the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I become angry when my freedom of choice is restricted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have difficulty understanding abstract ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I feel comfortable around people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I insult people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regulations trigger a sense of resistance in me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I pay attention to details.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I worry about things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a vivid imagination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I keep in the background.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It disappoints me to see others submitting to standards and rules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I sympathize with others' feelings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I make a mess of things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I seldom feel blue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not interested in abstract ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
The thought of being dependent on others aggravates me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I start conversations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not interested in other people's problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get chores done right away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am easily disturbed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have excellent ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I have little to say.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a soft heart.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often forget to put things back in their proper place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get upset easily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not have a good imagination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When someone forces me to do something, I feel like doing the opposite.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I talk to a lot of different people at parties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not really interested in others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like order.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I become frustrated when I am unable to make free and independent decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I change my mood a lot.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am quick to understand things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I don't like to draw attention to myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I take time out for others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It irritates me when someone points out things which are obvious to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I shirk my duties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have frequent mood swings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I use difficult words.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I don't mind being the center of attention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am content only when I am acting of my own free will.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel others' emotions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I follow a schedule.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get irritated easily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I spend time reflecting on things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Each statement must be rated on how much you agree with that statement on a five point scale: (1) disagree, (2) slightly disagree, (3) neutral, (4) slightly agree, and (5) agree. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age.

	disagree	slightly disagree	neutral	slightly agree	agree
I resist the attempts of others to influence me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am quiet around strangers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I make people feel at ease.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am exacting in my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often feel blue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am full of ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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General Data Questionnaire *(all treatments)*

General data

What is your sex?

- Male
 Female

What is your age?

What is your nationality?

What is your major field of study?

What language did you speak at home with your family while you were growing up?

For the 2016 U.S. presidential election, which candidate, if any, would you most like to see win?

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