Information Transmission Under the Shadow of the Future
For Online Publication: Appendix E
Representative Instrictions for Partners Treatment
Script, Handout and Presentation

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Contents

E1   Script

Instructions-Script: Treatment- 2 States-2 Messages

[Start Slide:] Welcome. You are about to participate in an experiment on decision-making. What you earn depends partly on your decisions, partly on the decisions of others, and partly on chance. Please turn off cell phones and similar devices now. Please do not talk or in any way try to communicate with other participants. We will start with a brief instruction period. During the instruction period you will be given a description of the main features of the experiment. If you have any questions during this period, raise your hand and your question will be answered in private by the experimenter.

[New Slide 2] In this experiment you will take on one of two **Roles** for the entire experiment: either a **Recommender** or a **Decision-Maker**. Whichever role you are assigned at the start of the experiment will be your role for the entirety of this session.

[New Slide 3] There will be many rounds in this experiment and in each round you will will be matched in a Recommender-Decision Maker pair. Every round of this experiment will be identical.

First, the computer randomly selects a **Direction**, either **Left** or **Right**, with equal probability So both outcomes are equally likely to be selected.

Second, the Recommender participant observes which Computer Direction was selected, and chooses a Recommendation to send: Either "Go Left" or "Go Right".

Third, the Decision Maker (who will not know which Computer Direction was selected until the end of the round) sees the Recommendation sent by the Recommender, and chooses a Decision. Either Left, Middle or Right.

Finally, both participants are given feedback.

[New Slide 4] Your payoffs for each round will depend on the outcomes selected.

The Recommender's round payoff depends only on the Decision. The recommender earns \$3.00 when the decision maker chooses Left, \$1 when they choose Middle, and \$0 when they choose Right.

The Decision-Maker's round payoff depends on both the Computer Direction and their Decision. If their decision matches the Computer Direction, so choosing Left when the Direction is Left or Right when the Direction is Right, they earn \$3.00. If they choose Middle they earn \$2.00 for either Computer Directions, Left or Right. If they choose the opposite of the Computer

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Direction, so left when the Direction is Right, or Right when the Direction is Left, they earn $0.00.

A summary of these round payoffs for each role are given in tables on the back of your Reference Sheet.

[New Slide 5] An example of the screens you will face is projected above. This first slide shows what you will see in the round if you are a Recommender. At the top of the screen and in the table in the center it is clearly indicated that the randomly selected Computer Direction in this example is Left, which is highlighted in Red.

The recommenders must choose a recommendation to send. The place where you have to make a choice is highlighted with an orange background and orange buttons. You are free to choose either recommendation regardless of the selected Direction, and do so by clicking your desired option.

[New Slide 6] As an example, the projected slide shows what happens if they were to recommend "Go Left." The selection is now highlighted in blue. Once you have made a choice a Submit button appears in the bottom right of the screen. You can change your selection by clicking on either orange button, as long as you haven't clicked submit. However, once you click on the submit button your selection is final.

[New Slide 7] This next slide shows the Decision-Maker receiving the recommendation. In this example, the recommendation for the round was Go Left, which is indicated in blue at the top, and in the corresponding row of the table. As the Decision-Maker you will not know the selected Computer Direction when you make a Decision. Again, the Decision you will make is highlighted in orange.

[New Slide 8] The projected slide shows the Decision-Maker chosing Left, highlighted in Green. You can change your selection as long as you haven't clicked on the submit button. But once you click submit your selection is final.

[New Slide 9] At the end of the round you are given feedback, which is identical for both the Recommender and the Decision-Maker. If you are the Recommender, you will learn the chosen Decision. If you are the Decision-Maker, you will learn the selected Direction for this Round.

The last two rows indicate the corresponding payoff to the Recommender and Decision-Maker. The reported payoffs match the Reference Sheet tables for the case when the Computer Direction is Left and the Decision is Left.

[New Slide 10] Your round decisions in this session will be grouped into Cycles. A cycle here is a sequence of rounds of random length. To implement

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a cycle, the computer rolls a fair 100-sided die after each completed round, common to all the participants. If the number is larger than 75, the current cycle ends, and a new one will begin. If the number is 75 or less, the current cycle continues into another round.

Because of this procedure the length of each Cycle is random. It could be that a cycle is just one round, or it could go on for several rounds. Because of the die-rolling procedure there is always a 25% probability that the current round is the cycle's last, and a 75% probability that there will be at least another round.

In total you will participate in 20 cycles. Fifteen in part 1, and a further 5 cycles in part 2, before which we will give you additional instructions.

Your final payment for this session will consist of 3 randomly selected Cycles from the 20 in the experiment, in addition to your $6 show-up fee. For each selected cycle we will pay you the sum of your earnings across all rounds within that cycle.

[New Slide 11] The projected slide illustrates examples of three cycles. As you can see, these cycle ends whenever the die roll is greater than 75 (in the example a 98, a 76 and a 100).

If Cycle 1 were selected for payment in this example, the participant would earn the sum of their payoffs in the five rounds. If Cycle 2 were selected, the participant would earn the sum of their payoffs over the two rounds. You should note that the cycles in the experiment will likely be of different lengths to this example.

Within each cycle the computer will keep you matched with the same other participant. That is, within each cycle you interact with the same Recommender/Decision-Maker participant. However, in each new cycle the computer will make sure to randomly re-match you to a different participant that the person you interacted with in the previous cycle.

This is illustrated in the projected figure with different colors representing other participants. So in the cycle 1 example they interact with the same recommender/decision maker for the entire cycle (here five rounds). In the cycle 2 example they match with a new participant who they interact with for next cycle (here two rounds)

The matching is anonymous and random, and you will never know which other participants you have engaged with, nor in what order. The only thing you will know is that you are always matched to the same participant within each cycle, and that each new cycle rematches you to a different participant than the last.

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[New Slide 12] In each new round of a cycle, you will be reminded of what happened in the previous round. The projected slide shows the first screen of Round 2 for the Decision-Maker while they wait for the Recommendation. The interface shows the (so far blank) table for this round, and the filled-in table for the previous round to remind you of what happened.

Moreover, the entire history of choices in the current cycle is displayed in a table on the left side of the screen. In the table you can see the computer direction, the recommendation, the decision and your payoff.

[New Slide 13] A Reference Sheet on your desk provides a summary of these experimental instructions.

Now that we have familiarized you with the task, the experiment will begin. The first screen will tell you your randomly determined role: Recommender or Decision Maker. After that the first random-length cycle will begin.

Good luck!

[Scripts Ends. Start z-tree]

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Instructions: Part 2-Script:

Before we start the last 5 cycles in Part 2, we will now familiarize you with the changes to the task and interface.

The main task will be nearly identical to Part 1. The only difference is that we will now ask you to make choice before observing all of the feedback from the previous round. In order for us to collect more information on your choices, we will instead ask you to make recommendations/decisions across each possible scenario in the previous round .

[New Slide 14] In the first round of each Payment Cycle you will make your choices as before. The Recommender sees the Computer Direction and chooses a Recommendation. The decision maker then sees the recommendation and makes a decision.

[New Slide 15] In the example above the recommender submits the recommendation Go Left.

[New Slide 16] The Decision-Maker observes "Go Left" and chooses a decision.

[New Slide 17] In the example, the Decision-Maker chooses Left.

Up until this point there are no differences with part 1 of the experiment. The changes begin from the end of round one onward.

[New Slide 18] This slide shows the feedback you will receive for round 1 if you are the recommender. As you can see, the Decision in the previous round is not revealed. In part two we will ask you to make recommendations for each possible decision the Decision Maker might have chosen.

[New Slide 19] Similarly, if you are the decision maker, the computer direction last round is not revealed. In part two you will make decisions for each possible Computer Direction in the previous round.

[New Slide 20] Moving into any round after the first, if you are a Recommender, you will observe the projected slide. This reminds you of what you chose last round and reminds you that you will now make three choices. A recommendation to send this round if the decision maker you are matched with for the cycle chose left last round. A recommendation which will be sent if the previous round's decision was Middle. And one to send if the previous round's decision was Right.

[New Slide 21] The projected slide shows where Recommenders make their three choices. At the top you can see the Computer Direction for the current round. Below this are three tables, one for each scenario. The text at the top left of each table (in green) indicates the scenario for that choice.

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For example, the first of the three table's Recommendations is sent if the matched decision maker chose Left as the decision in the previous round. This Left Decision scenario is presented in the previous round. If you are the recommender, you will choose a recommendation to send if this scenario is what actually happened.

Below this, are two more scenarios, where you will choose the recommendation to send if the previous round's decision was Middle or Right. After you have made all three choices the submit button appears. Once you submit your recommendations the interface will reveal what the the matched decision maker actually chose in the previous round, and will send the recommendation you selected for the true scenario.

[New Slide 22] If you are the Decision-Maker, in each round after the first the interface will first remind you of the tasks for the round. Before you learn the Computer Direction selected in the previous round you will make your decision in the next. You will make two decisions for two scenarios. One decision to be implemented in the current round if the computer direction in the previous round was left, and one decision to be implemented if the computer direction in the previous round was right.

[New Slide 23] The projected slide shows where the Decision-Maker will make their two choices. At the top you can see the Recommendation sent for the current round by the Recommender. Below this are two tables, one for each Direction scenario from the previous round .

The Computer Direction at the top right of each table (in red) indicates the scenario. For example, the Decision-Maker's top-table will be used if the Computer Direction in the previous round was LEFT. If you are a Decision Maker you will make your choice for this scenario.

In the table below you will make a choice in the scenario where the Computer Direction in the previous round was Right. After you have made both choices the submit button will appear, and once you are happy with your choices click the button. The interface will then reveal the Computer Direction from the previous round and will implement the decision you chose for that scenario.

[New Slide 24] The projected screenshot displays the kind of feedback that you will receive after round 1 if you are a recommender. Here you can see the actual Decision of the matched decision maker in the previous round, , and the resulting payoffs.

At the top of the screen you are reminded of the recommendation you selected for the scenario. The other's decision and payoffs for the present

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round will be revealed to you after you make your choices in the next round or the payment cycle ends.

[New Slide 25] Similarly, here is the Decision-Maker's feedback. Here you can see the actual Computer Direction from the previous round, and the payoffs.

At the top of the screen you are reminded of the Decision that you selected for that scenario.

The Computer Direction andpayoffs for the present round will be revealed to you after you make your choices in the next round or the payment cycle ends.

Good luck!

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E2 Handout to Subjects

Reference Sheet

Rounds:

- Every round a **Recommender** and a **Decision Maker** interact as follows:

    1. The computer randomly selects a **Direction**: **Left** or **Right**, with equal probability.

    2. The **Recommender** sees the selected **Direction**, and chooses a **Recommendation** to send to the **Decision-Maker**: either **Go Left** or **Go Right** .

    3. The **Decision-Maker** (who does not know the selected **Direction**) receives the recommendation and makes a **Decision**: either **Left**, **Middle** or **Right**.

    4. Round feedback is given.

Cycles:

You will be paid at the end of the experiment based on 3 randomly selected **Cycles**.

- The number of rounds in a **Cycle** is random. After each completed round there is a

    - 25% probability the Cycle ends and a new Cycle begins.
    - 75% probability that the Cycle will continue for **at least** another round.

- Within each Cycle you will be in fixed **Recommender–Decision-Maker** pairs.

    - If you are a **Recommender** you will send Recommendations to the same **Decision-Maker** participant within the **Cycle**.
    - If you are a **Decision-Maker** you will receive Recommendations from the same **Recommender** participant within the **Cycle**.

- At the end of each Cycle, you are randomly rematched to a different participant for the next Cycle.

    - Within a Cycle, you interact with the same participant for all of its rounds
    - In each new Cycle you are guaranteed to be matched to a different participant from the last Cycle.

ROUND PAYOFF TABLES

Recommender's Payoff:

		Decision		
		Left	**Middle**	**Right**
Computer	**Left**	$3.00	$1.00	$0.00
Direction	**Right**	$3.00	$1.00	$0.00

Decision-Maker's Payoff:

		Decision		
		Left	**Middle**	**Right**
Computer	**Left**	$3.00	$2.00	$0.00
Direction	**Right**	$0.00	$2.00	$3.00

E3 Presentation

Welcome to the Experiment

- Please turn off cell phones now
- From this point on please do not talk to other participants
- We will now begin the instruction period
- If you have any questions, raise your hand, and your question will be answered in private

- There are two roles in this experiment:
  - A Recommender
  - A Decision Maker
- Whichever role you are assigned at the start of the experiment will be your role for the entirety of this session.

Main Task

- Session comprised of many rounds of a single task
- Each round works as follows:
  1. Computer selects a direction, **LEFT** or **RIGHT**
  2. The Recommender sees the Computer's Direction and chooses a Recommendation to send, **GO LEFT** or **GO RIGHT**.
  3. The Decision Maker sees the Recommendation and makes a Decision, **LEFT**, **MIDDLE** or **RIGHT**
  4. Feedback on the round.

Round Payoffs

- Recommender's round payoffs are determined only on the Decision:
  - If the decision maker chooses LEFT their payoff is $3
  - If the decision maker chooses MIDDLE their payoff is $1
  - If the decision maker chooses RIGHT their payoff is $0
- The Decision Maker's payoff is determined by both the Computer Direction and the Decision
  - If the Computer Direction is the same as the Decision their payoff is $3
  - If the decision maker choose MIDDLE their payoff is $2, regardless of the Computer Direction
  - If the Computer Direction is the opposite of their Decision their payoff is $0

Top-left panel

You are the Recommender
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

The Computer Direction this Round is   Left

Please Make your Recommendation

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R

Top-right panel

You are the Recommender
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

The Computer Direction this Round is   Left

Please Make your Recommendation

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R

Submit

Bottom-left panel

You are the Decision-Maker
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

The Recommendation this Round is   Go Left

Please Make your Decision

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R

Bottom-right panel

You are the Decision-Maker
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

The Recommendation this Round is   Go Left

Please Make your Decision

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R

Submit

Payment Cycles

You are the Decision-Maker
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff
1	Left	Go Left	Left	3

Feedback

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R
Recommender Payoff	$3.0
Decision-Maker Payoff	$3.0

Move On

- The number of rounds within each Cycle is random
  - After each completed round the computer rolls a fair 100-sided die for the entire session
  - The Cycle ends whenever the die roll is greater than 75
  - In any round there is a:
    - 25% probability that the Cycle will end
    - 75% probability that the Cycle will continue
- The experiment will consist of 15 Cycles for Part 1 and 5 Cycles for Part 2.
- You will be paid at the end of the experiment for **3** randomly selected Cycles plus your $6 show-up

Payment Cycles

Cycle 1 14 38 74 8 98
Cycle 2 61 76
Cycle 3 2 60 71 20 28 51 45 100

- The first die roll above 75 ends the cycle
- Selected cycles pay the sum of the round payoffs
- You will be matched to the same other participant within each payment cycle
- In each new cycle you will be matched to a different participant than the previous cycle

You are the Decision-Maker
Cycle: 1
Round: 2

Please wait until the other sends a Recommendation

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff
1	Left	Go Left	Left	3

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R

Payment Cycles

Part 2

- A Reference Sheet has been provided that summarizes these instructions
- After informing you of your Role (Recommender or Decision Maker) the first cycle will being

Good Luck!

Panel 1 (top-left)

You are the Decision-Maker
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

The Recommendation this Round is Go Left

Please Make your Decision

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R

Panel 2 (top-right)

You are the Decision-Maker
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

The Recommendation this Round is Go Left

Please Make your Decision

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R

Submit

Panel 3 (bottom-left)

You are the Recommender
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

Feedback

You will learn the other's Decision and your Payoffs after you make your choices next Round

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R
Recommender Payoff	Not known yet
Decision-Maker Payoff	Not known yet

Move On

Panel 4 (bottom-right)

You are the Decision-Maker
Cycle: 1
Round: 1

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

Feedback

You will learn the Computer Direction and your Payoffs after you make your choices next Round

	This Round
Computer Direction	L R
Recommendation	L R
Decision	L M R
Recommender Payoff	Not known yet
Decision-Maker Payoff	Not known yet

Move On

Top-left panel

In Round 1 you sent the recommendation: **Go Left**

Before you learn what the Decision-Maker chose in Round **1**

You will make your recommendation for Round **2**

You will make   **THREE decisions for Round 2**

In case the Decision-Maker chose   **Left** in Round 1
In case the Decision-Maker chose   **Middle** in Round 1
In case the Decision-Maker chose   **Right** in Round 1

MoveOn

Top-right panel

You are the Recommender
Cycle: 1
Round: 2

The Computer Direction this Round is   Left
Please Make your Recommendation

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

In case the other selected LEFT in the previous round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R

In case the other selected MIDDLE in the previous round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R

In case the other selected RIGHT in the previous round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R

Bottom-left panel

In Round 1 you chose   **Left**

Before you learn the Computer Direction for Round **1**

You will make your Decision for Round **2**

You will make   **TWO decisions for Round 2.**

In case the Computer Direction was   **Left** in Round 1
In case the Computer Direction was   **Right** in Round 1

MoveOn

Bottom-right panel

You are the Decision-Maker
Cycle: 1
Round: 2

The Recommendation this Round is   Go Left
Please Make your Decision

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

In case the Computer Direction was LEFT in the previous round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R

In case the Computer Direction was RIGHT in the previous round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R

Recommender Screen

You are the Recommender
Cycle: 1
Round: 2

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

Feedback

The other's decision in the Previous Round was   Left
You indicated that for that decision, your message this Round is   Go Left

You will learn the other's Decision and your Payoffs for this Round after you make your choices next Round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R
Recommender Payoff	Not known yet	$3.0
Decision-Maker Payoff	Not known yet	$3.0

Move On

Decision-Maker Screen

You are the Decision-Maker
Cycle: 1
Round: 2

History for this Cycle

Round	Computer Direction	Recomm	Decision	Your Payoff

Feedback

The Computer Direction in the Previous Round was   Left
You indicated that for that Computer Direction, your Decision this Round is   Left

You will learn the other's Decision and your Payoffs for this Round after you make your choices next Round

	This Round	Previous Round
Computer Direction	L R	L R
Recommendation	L R	L R
Decision	L M R	L M R
Recommender Payoff	Not known yet	$3.0
Decision-Maker Payoff	Not known yet	$3.0

Move On