

# BEHAVIORAL AND STRUCTURAL BARRIERS TO INFORMATION AGGREGATION IN NETWORKS

## *Empirical Appendix*

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### **A   Instructions**

#### **A.1   Instructions PART 1 of the experiment: One Gatekeeper network**

##### **WELCOME**

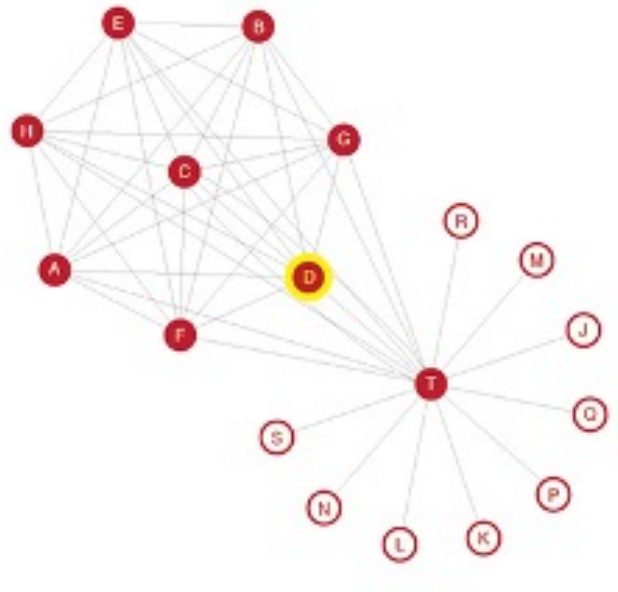
You are about to participate in an experiment on decision-making. You will be paid privately for your participation in cash at the end of the session. Please turn off all electronic devices, especially phones. During the experiment, you are asked to use only the interface of this experiment and avoid using any other applications on these laboratory computers.

The experiment consists of two parts. Part I is the longer part. At the beginning of Part I, we will explain in details the game you will be playing in Part I. Afterwards, you will answer a short quiz about the rules of the game. After all participants finish the quiz, the experiment will begin. After Part I, Part II will start. Part II consists of several different tasks; all of them are relatively short. In Part II, all the instructions explaining your tasks will appear on the screen and you are responsible for reading them carefully. If you have any questions during the experiment, please raise your hand, and the experimenter will be happy to approach you and answer your questions.

##### **STRUCTURE OF PART I**

Part I of the experiment consists of 10 identical games. Each game consists of several rounds. Before the beginning of each game, some subjects will be assigned a role of observer (discussed later) and the rest will be assigned an ID letter: A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S or T.

Your group assignment and your ID letter will be the same in all rounds of the same game, but it will vary from game to game. In other words, at the end of each game, you will be either reassigned a new ID letter, or assigned a role of the observer. The game number, the round number and your ID letter will be clearly displayed on the screen.



## WHAT HAPPENS IN EACH GAME OF PART I

We will first describe a game played by 18 subjects that were assigned ID letters, and then describe the task of the observer.

In each game, the subjects with ID letters are positioned in a network. The network describes who is linked to whom. The left-hand side of the computer screen will have a picture that represents the network that describes all the links between the subjects in your group.

In today's experiment, in all 10 games you will play the same network, which looks like this:

A circle with a letter inside denotes a subject. One circle is highlighted in yellow – this indicates YOUR POSITION in the network. In this example, you were assigned the letter D. Lines between the circles indicate links between subjects. Filled circles indicate your direct neighbors, while transparent circles indicate subjects with whom you are not directly connected.

Clique is a network where every pair of subjects is directly linked. In this network there is one clique of 9 subjects, which consists of subjects: A, B, C, D, E, F, G, H, and T (every subject is linked to all the other members of the clique). The remaining 9 subjects, J, K, L, M, N, P, Q, R, and S are linked only to subject T.

At the beginning of each game (before the first round), the computer randomly selects WHITE or BLUE color. We will call this color the selected color. Each color is equally likely to be selected. That is, there is exactly a 50% chance that WHITE is selected and a 50% chance that BLUE is selected. The color is selected independently in each game. The computer selects the color only once at the beginning of each game.

**Your task:** In each round of a game, you will be asked to guess the color selected by the computer.

At the beginning of the first round, each subject receives a signal regarding the color selected by the computer. There are two possible signals that you may receive: signal white or signal blue.

- If at the beginning of the game the computer selected color WHITE, then each subject receives signal white with a probability 70% and signal blue with a probability 30%.
- If at the beginning of the game the computer selected color BLUE, then each subject receives signal blue with a probability 70% and signal white with a probability 30%.

Given the color selected by the computer the signals received by the subjects are independent from each other. It means that for each subject, there is 70% chance that her signal matches the selected color and 30% chance that it does not. That is, if the computer selected WHITE then you are more likely to receive signal white than signal blue, and if the computer selected BLUE then you are more likely to receive signal blue than signal white. The same is true for signals received by all other subjects in your network.

Another way to think about these probabilities is the following. Imagine that there are two urns – a white urn and a blue urn. The white urn contains 7 white balls and 3 blue balls. The blue urn contains 7 blue balls and 3 white balls. First, the computer randomly selects one of the urns (each urn is equally likely to be selected). This is the selected color. Second, each subject draws a ball from the selected urn with replacement, that is, every ball that is drawn from the urn is placed back in the urn before the next draw. Therefore, there is 70% chance that the color of the ball you drew (your signal) matches the color selected by the computer (indicated by the color of the urn).

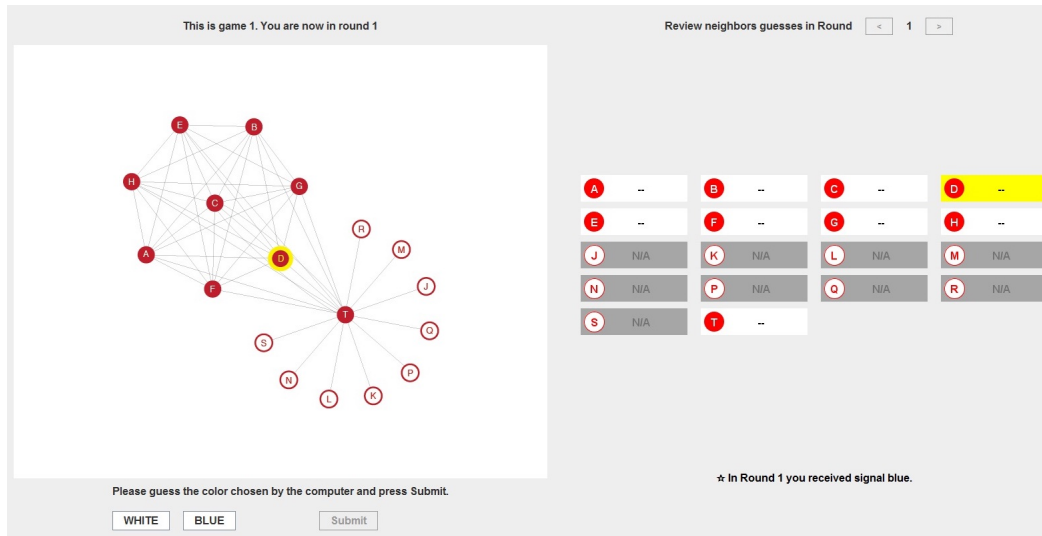
You will receive a signal only once during a game; this happens at the beginning of round 1. Moreover, the other subjects of your group do not observe your signal and, similarly, you do not observe signals received by other subjects in your group.

On your screen, in round 1, you will see one of the two following messages “In Round 1 you received signal white” OR “In Round 1 you received signal blue”.

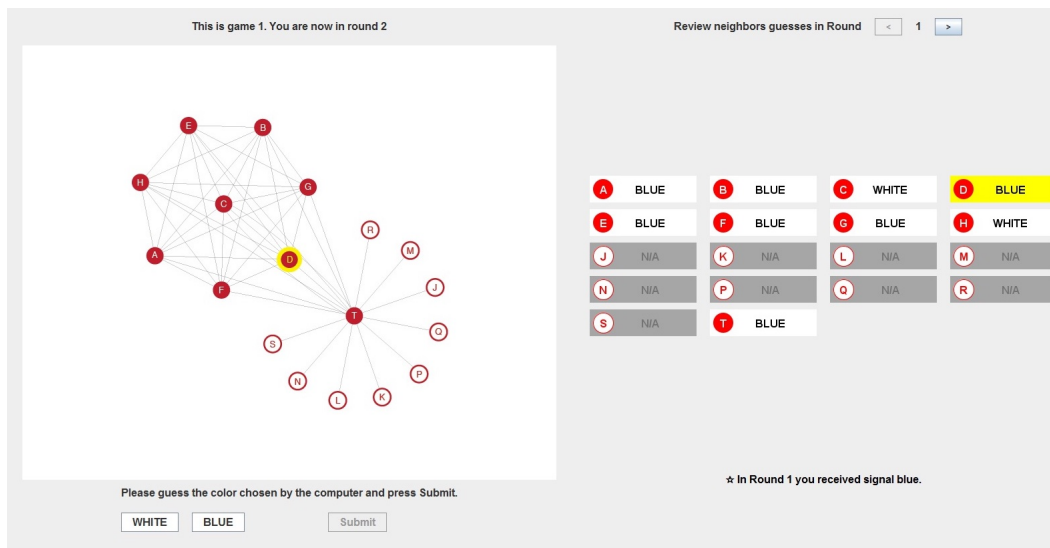
In each round you will be asked to guess the color selected by the computer. At the bottom left part of the screen, you will observe two buttons: WHITE and BLUE. Your task is to click one of the buttons and then click the SUBMIT button to confirm your choice. A round is over once all the subjects in the group submit their guesses. Your screen will blink once a new round begins.

In Round 1, you only have your signal when you make your choice. However, in Round 2 and all the subsequent rounds, you will also be able to observe guesses made by your direct neighbors in previous rounds as described by the network picture. This information will be presented on the right-hand side of the screen in a table. This table will also keep track of your own guesses – highlighted in yellow.

In this table you can observe your own and your direct neighbors’ guesses in the previous rounds of the game by clicking arrow buttons above the table. The number between the forward and backward buttons indicates the round in which the guesses you observe took place. At the beginning of each round starting from Round 2 onwards, before submitting your guess, you can click on the



Screenshot 1 in One Gatekeeper sessions



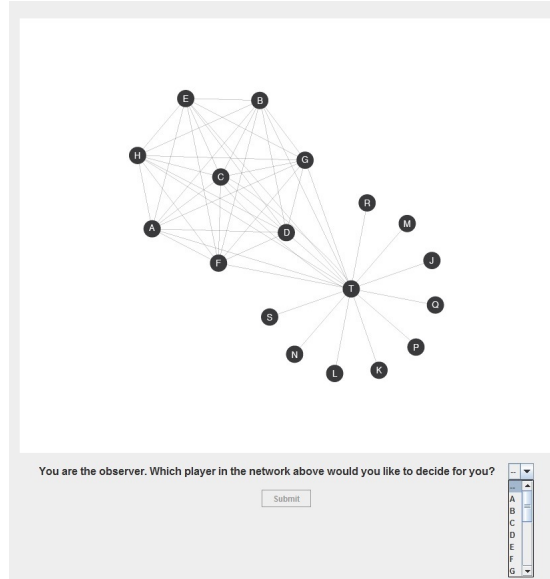
Screenshot 2 in One Gatekeeper sessions

backward and forward buttons to go back and see what were the guesses submitted by your direct neighbors and what were your own guesses in the current game.

Please take a look at Screenshot 1 and Screenshot 2.

**When does the game end?** There are two possibilities for how a game may come to an end. The first possibility is the one in which none of the subjects changes her guess in the last three consecutive rounds. These do not have to be the same guesses across subjects. But it has to be the case that each subject submitted the same guess in the last three consecutive rounds (again these can be different guesses for different subjects).

The second possibility involves chance. If your group reached Round 50, then at the end of



Screenshot 3 in One Gatekeeper sessions

every round starting from Round 50 there is a 50% chance that the current round is the last round of the game and 50% chance that the game continues to the next round.

**Your earnings in Part I.** To determine your earnings in this experiment, at the end of the experiment, one of the 10 games that you have played will be selected by the computer. Each game is equally likely to be selected. After that, the computer chooses one round randomly from the rounds played in the selected game (each round is equally likely to be selected). If your guess in the selected round of the selected game is correct, then you receive \$20. If it is not correct, then you receive \$5. In addition, you will receive payment for some of the tasks in Part II and a participation fee of \$7.

**The task of the observers.** If you were selected to be an observer, then your task is to choose one player from the network whose payoff you will receive if this game is selected for payment. You will observe the network structure, but not the signals or the guesses of any of the subjects. You will have to make your choice by choosing an ID letter from the drop-down menu and clicking the submit button. Once you have made your choice, you will have to wait patiently until the end of this game. Please take a look at Screenshot 3.

Summary of Part I:

- The experiment consists of 10 games. Each game consists of many rounds.
- In each game, 18 subjects are assigned ID letters, while the remaining subjects assume the role of observers.

- The group assignments and the IDs stay the same for the duration of a game, but vary from game to game.
- All subjects observe the same network structure. Subjects also observe their position in the network highlighted in yellow. A network shows all the links between subjects in your group.
- The network consists of one clique of 9 subjects. The remaining 9 subjects are linked only to one subject.
- At the beginning of a game, the computer selects either WHITE or BLUE color. Each color is equally likely to be selected.
- After the computer selects a color, each subject receives a signal, which matches the selected color with the probability 70%.
- Given the color selected by the computer, signals are independent (draws from the same urn with replacement).
- Each subject observes only her signal but not the signals received by the other subjects.
- After observing your signal, all subjects are prompted to guess the color selected by the computer.
- In each round (except for the very first round), subjects may observe guesses made by their direct neighbors in all past rounds (summarized in the table on the right hand side of the screen) and are asked to guess the selected color again.
- The game ends if none of the subjects changes her guess for three consecutive rounds. In addition, after Round 50, in each round there is 50% chance that this round is the last round of the game.
- At the end of the experiment, one of the 10 games will be selected for payment. Each game is equally likely to be selected. Afterwards, the computer randomly selects one of the rounds of this game (each round is equally likely to be selected).
- If your guess in the selected round of the selected game is correct, you earn \$20, otherwise you earn \$5. A correct guess means that you chose the color that matches the color selected by the computer at the beginning of this game.
- The task of the observer is to choose the ID letter of a player whose payoff she will receive if this game is chosen for payment. The observer does not observe signals or guesses of any of the other subjects.
- In addition, all participants receive \$7 participation fee and will receive some earnings in Part II of the experiment, which we will be described after Part I ends.

## A.2 Pre-experiment Quiz

After reading the instructions and before starting the experiment, participants were asked to answer a few questions checking their understanding of the instructions. Participants could not proceed without correctly answering all the questions.

**Question 1.** The color selected by the computer is

1. Selected at the beginning of each game and does not change between rounds of the same game. The selected color may change from game to game and it is identical for all members of the same network.
2. Selected in every round of each game and, thus, may change between rounds of the same game. The selected color is identical for all members of the same network.
3. Selected only once at the beginning of the experiment and remains unchanged in all rounds of all games. The selected color is identical for all members of the network.
4. Selected at the beginning of each game and does not change between rounds of the same game. The selected color may change from game to game and may differ between members of the same network.

**Question 2.** Please select the correct statement:

1. All members of the same network receive at the beginning of each game the same signal regarding the color selected by the computer.
2. Each subject receives at the beginning of each game its own signal regarding the color selected by the computer.
3. All members of the same network receive at the beginning of each round in each game the same signal regarding the color selected by the computer.
4. Each subject receives at the beginning of each round in each game its own signal regarding the color selected by the computer.

**Question 3.** Please select the correct statement:

1. In each game, 70% of the members of the same network receive a signal that matches the selected color by the computer. 30% of the members of this network receive a signal that does not match the color selected by the computer.
2. In 70% of the games of the same experiment the subjects receive a signal that matches the selected color by the computer. In 30% of the games they receive a signal that does not match the color selected by the computer.

3. In each round, 70% of the members of the same network receive a signal that matches the selected color by the computer. 30% of the members of this network receive a signal that does not match the color selected by the computer.
4. Each subject (that is not an observer) receives a signal that matches the color selected by the computer with probability 70% and is different from the color selected by the computer with probability 30%.

**Question 4.** Imagine that you are one of the members of a network. Round 15 had just ended. In the past three rounds (Rounds 13, 14 and 15) all the members of your network chose WHITE. Will the game continue to Round 16?

1. Yes
2. No

**Question 5.** Imagine that you are one of the members of a network. Round 15 had just ended. Two members (not you) chose BLUE in the past three rounds (Rounds 13, 14 and 15), while you and the remaining members chose WHITE in the past three rounds. Will the game continue to Round 16?

1. Yes
2. No

**Question 6.** Imagine that you are one of the members of a network. Round 15 had just ended. All the members except one chose WHITE in the past three rounds (Rounds 13, 14 and 15), while one member chose BLUE in rounds 13 and 14 and chose WHITE in Round 15. Will the game continue to Round 16?

1. Yes
2. No

**Question 7.** At the end of the experiment, the computer chose Game 3 for payment. The color selected by the computer at the beginning of Game 3 was WHITE. This game lasted for 8 rounds and the computer randomly selected Round 2 to determine subjects' payments. Please choose the correct statement:

1. A subject receives \$20 if she guessed WHITE in Round 1 of Game 3 and \$5 otherwise.
2. A subject receives \$20 if she guessed WHITE in Round 2 of Game 3 and \$5 otherwise.
3. Subjects who guessed WHITE in the last three rounds of Game 3 (Rounds 6, 7 and 8) receive \$20. All the remaining subjects receive \$5.



4. All the members of the network receive \$20 if they all guessed WHITE in the last three rounds of Game 3 (Rounds 6, 7 and 8). Otherwise, all members of the network receive \$5.

**Question 8.** When the observer makes a decision she has at her disposal:

1. The network structure and the color selected by the computer.
2. The network structure only.
3. The network structure, the subjects' choices and signals received by subjects regarding the color selected by the computer at the beginning of the game.
4. The network structure and an independent signal regarding the color selected by the computer at the beginning of the game.

### **A.3 Instructions PART 2 of the experiment: all networks**

## **PART II OF THE EXPERIMENT**

There are four tasks in this part of the experiment and a short survey at the end. One of the four tasks will be chosen for payment (each task is equally likely to be selected). Your earnings in the selected task will be added to your overall earnings in the experiment.

### **TASK I**

Five cards are chosen randomly from a deck of 100 cards. The deck is composed of colored cards according to the following breakdown: 36 of them GREEN, 25 BLUE, 22 YELLOW and 17 BROWN. The five cards are then placed into five separate envelopes marked A, B, C, D and E.

Your task is to guess the color of the card in each envelope by selecting the color of the card in each of the five columns representing five envelopes.

If this task will be chosen for payment, then you will receive 50 cents for each correct guess. In other words, if you have guessed correctly the colors of two out of five cards, then you will receive 1 dollar, while if you have guessed correctly the colors of all five cards, then you will receive 2.5 dollars. Please make your guesses:

### **TASK II**

There are 9 rounds in this task. In each round, your task is to guess the color of the ball selected by the computer.

The ball can be either RED or BLACK. There are three balls: two of them are RED and one is BLACK. In each round, the computer randomly selects one of the balls (each ball is equally likely to be selected). That is, there is two-thirds chance that the selected ball is RED and one-third chance that the selected ball is BLACK. This selection is done independently in each round.

Your task in each round is to guess the color of the selected ball. If this task is chosen for payment, then will you receive 25 cents for each correct guess.

This is round 1 (2, 3, ...). Please make your guess for round 1.

### **TASK III**

You are endowed with 100 points which are worth 2 dollars (each point is worth 2 cents). Please choose how many points you wish to invest in a risky investment. You can choose any number between 0 and 100 points.

There is a 50 percent chance that the risky investment is successful. If it is successful, you receive 2.5 times the number of points you chose to invest. If the investment is unsuccessful, you lose the points invested. The points not invested are yours to keep no matter what.

Please enter how many points you wish to invest and click the 'Submit' button.

### **TASK IV**

You are endowed with 100 points which are worth 2 dollars (each point is worth 2 cents). Please choose how many points you wish to invest in a risky investment. You can choose any number between 0 and 100 points.

There is a 40 percent chance that the risky investment is successful. If it is successful, you receive 3 times the number of points you chose to invest. If the investment is unsuccessful, you lose the points invested. The points not invested are yours to keep no matter what.

Please enter how many points you wish to invest and click the 'Submit' button.

### **SURVEY**

1. What year were you born?
2. What is your gender?
3. What year are you in at the university?
4. What is your field of study?

#### **A.4 Probability Matching and Risk Aversion Measures**

For the analysis performed in the paper, we use the following definitions:

- A participant is classified as a probability matcher if both (1) Green was chosen in 3 or less envelopes in Task I, and, (2) Red was chosen in 6 or less guesses in Task II.
- The participants' risk aversion score is  $1 - \frac{x}{100}$  where  $x$  is their answer to Task III. Replacing Task III with Task IV gives the same qualitative results.

## A.5 Instructions PART 1 of One Gatekeeper Scripted sessions

The instructions are identical to those of the One Gatekeeper network presented in Section A.1 except for the description of signals, which is reproduced below:

You will receive a signal only once during a game; this happens at the beginning of round 1. Moreover, the other subjects of your group do not observe your signal and, similarly, you do not observe signals received by other subjects in your group.

On your screen, in round 1, you will see one of the two following messages “In Round 1 you received signal white” OR “In Round 1 you received signal blue”.

If you are assigned role T in this game, your message will say “In Round 1 you received NO SIGNAL”.

This feature is also mentioned in the Summary of Part I:

- After the computer selects a color, each subject except for T, receives a signal, which matches the selected color with the probability 70%.

## A.6 In-Person vs. Virtual Sessions

We investigate whether there are differences in the behavior of participants between online and in-person sessions. Table 1 in the main text lists the number of sessions by network and identifies the ten sessions that took place online.<sup>1</sup>

Table 1 presents differences in averages for participants and match outcomes between the online and in-person sessions. Panel A focuses on differences in participant means, considering measures like Probability Matching, Risk Aversion, Gender, Frequency of Correct Round 1 and Round 2 Guesses, and Frequency with which a player changed their guess during a game. The results demonstrate the only difference that survives Bonferroni correction is that online participants have a higher risk aversion score than in-person participants. The magnitude of this difference (0.119) is relatively small, particularly in the context of the estimated coefficient of risk aversion in the main regressions which are almost always smaller than 0.15 in absolute value (except for regression 5 in Table 9 in the main text). There seems to be some evidence that the gender in the online sessions skewed male, though only one regression result in the paper has a significant coefficient for gender. The online participants are also slightly more likely to guess their signal in the first round, though the mean difference is only 2%.

Panel B of Table 1 presents differences in match outcomes including dummy variables to control for network-level differences. In this context, the identification is coming primarily from the Star network and the Two Cores with Three Links network, which have both online and in-person sessions. No features survive Bonferroni correction, though there is some evidence that the size of the last round majority is slightly larger in online sessions than in in-person sessions.

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<sup>1</sup>The One Gatekeeper Scripted sessions were also conducted online. We exclude these sessions from the analysis below, since there were no comparable in-person sessions.

Panel A: Differences in Participant Means (Online - In Person)				
	Difference	Standard Error	p Value	Bonferroni p Value
Probability Matching	-0.036	0.028	0.192	0.722
Risk Aversion	0.119	0.019	0.000***	0.000***
Gender	-0.068	0.033	0.039**	0.214
Correct R1 Guess	0.022	0.011	0.048**	0.255
Correct R2 Guess	0.010	0.010	0.332	0.911
Changed Guess in Game	0.020	0.012	0.094*	0.446

Panel B: Differences in Match Outcomes w/Network Fixed Effects (Online - In Person)				
	Difference	Standard Error	p Value	Bonferroni p Value
% of Signals Match State	0.016	0.017	0.358	0.971
% of Last Guess Match State	0.024	0.058	0.679	1.000
% Size of Last Round Majority	0.062	0.023	0.010***	0.077*
% of Matches that have Consensus Match State	0.000	0.085	1.000	1.000
Aggregate Learning Index	0.075	0.129	0.563	0.999
Individual Learning Index	0.100	0.118	0.402	0.984

Panel C: Differences in Match Outcomes w/o Network Fixed Effects (Online - In Person)				
	Difference	Standard Error	p Value	Bonferroni p Value
% of Signals Match State	0.011	0.009	0.237	0.885
% of Last Guess Match State	0.040	0.026	0.136	0.690
% Size of Last Round Majority	0.058	0.017	0.001***	0.009***
% of Matches that have Consensus Match State	0.014	0.035	0.704	1.000
Aggregate Learning Index	0.128	0.063	0.049**	0.329
Individual Learning Index	0.136	0.057	0.021**	0.159

Table 1: Differences in Means for Online Sessions vs In-Person Sessions

**Notes:** These results test for differences in means for Online Sessions - In Person Sessions. Panel A reports differences in participant mean characteristics, including risk attitude, probability matching, and gender, the accuracy of their first and second guess, and the percentage of matches in which a participant changed their guess at least once during the session. Panel B reports difference in Match Outcomes, including the degree of signal accuracy, frequency of last guesses being accurate, the size of the last round majority, the percent of matches with the last round majority matches the state, the Aggregate and Individual Learning Index. While Panel B includes network dummy variables as controls, Panel C presents the same results without these dummy variables as controls. Standard errors are clustered at the participant level in Panel A and at the session level in Panels B and C.

Removing the network dummy variables in Panel C of Table 1 reveals that this difference in last round majority sizes is statistically significant. Note however, that the magnitude of the difference is equivalent to about one person out of the eighteen participants. The treatment without network controls also suggests that the differences in ALI and ILI, while material, doesn't appear to survive Bonferroni corrections. Importantly, though, our analysis of the Learning Indices focused on their responsiveness to the information environment and there is no differences in the percentage of signals that match the state across online and in-person settings.

Thus, overall, the in-person and the virtual sessions were comparable. The virtual sessions demonstrate slightly "better" behavior both in the first round and in aggregate learning. As far as

we can tell, these differences have no substantial effect on our main findings.

## B Distribution of Signals' Distributions

Number of white signals	Number of blue signals	Signals distribution (True: WHITE)	Signals distribution (True: BLUE)	Prior on the signals distribution
18	0	0.001628	0.000000	0.000814
17	1	0.012562	0.000000	0.006281
16	2	0.045762	0.000000	0.022881
15	3	0.104598	0.000004	0.052301
14	4	0.168104	0.000035	0.084070
13	5	0.201725	0.000230	0.100977
12	6	0.187316	0.001161	0.094238
11	7	0.137620	0.004643	0.071131
10	8	0.081098	0.014895	0.047997
9	9	0.038618	0.038618	0.038618
8	10	0.014895	0.081098	0.047997
7	11	0.004643	0.137620	0.071131
6	12	0.001161	0.187316	0.094238
5	13	0.000230	0.201725	0.100977
4	14	0.000035	0.168104	0.084070
3	15	0.000004	0.104598	0.052301
2	16	0.000000	0.045762	0.022881
1	17	0.000000	0.012562	0.006281
0	18	0.000000	0.001628	0.000814

Table 2: Prior on the signals' distribution for  $n = 18$  and  $q = 0.7$

## C Learning Indices

### C.1 The Individual Learning Index

In Section 4.2 we introduce the Aggregate Learning Index, which provides a high-level perspective of learning outcomes in our experimental design. We conclude that section by pointing out that ALI is composition invariant. That is, ALI is not sensitive to the actual number of subjects that learned correctly. We demonstrate it by the following example: Consider two games of 18 subjects,  $g$  and  $h$ , with 12 initial correct signals and 14 correct guesses in round  $t$ . Suppose that in game  $g$  among the 14 subjects who guessed correctly, 12 received the correct signal, while in game  $h$ , only 8 of the 14 received the correct signal. In both games, ALI equals  $\frac{1}{3}$ .

One may argue, however, that the extent of learning in game  $h$  was larger than in game  $g$ , since the fraction of subjects that got a wrong signal and learned correctly is greater in  $h$ , even if we take into account the fraction of subjects that got a correct signal and wrongly changed their mind. To account for the composition of the correct guesses, we define the **Individual Learning Index** (henceforth, ILI). ILI measures the fraction of subjects that got a wrong signal and learned that they have to change their mind net of the fraction of subjects that got a correct signal and yet changed their mind and guessed incorrectly.

For every round  $t$  in game  $g$ ,  $CGIS_t^g$  denotes the number of correct guesses by subjects that received incorrect signals and  $IGCS_t^g$  denotes the number of incorrect guesses by subjects that received correct signals. Then,

$$ILI_t^g = \frac{CGIS_t^g}{IS^g} - \frac{IGCS_t^g}{CS^g}$$

The two indices, ALI and ILI, share several desirable properties. First, both take values between  $-1$  and  $1$ . The value  $1$  encodes complete information aggregation outcome, in which all the subjects with wrong signals learned correctly and all the remaining subjects reported their correct signal. Similarly, the value  $-1$  encodes a complete failure in which all those with correct signals learned incorrectly, while all those with wrong signals reported their signal. Second, when  $\text{CGIS}_t^g = \text{IGCS}_t^g = 0$ , i.e., when nobody changed her mind relative to the initial signals' distribution, both indices take the value zero. In fact, the indices differ only in cases in which we observe changes of mind both among those who received a correct signal and among those who received an incorrect signal, that is, both  $\text{CGIS}_t^g$  and  $\text{IGCS}_t^g$  are positive. For instance in the example discussed above, the ILI of game  $g$  is  $\frac{2}{6} - \frac{0}{12} = \frac{1}{3}$  which is the same as the ALI of both games, but it is smaller than the ILI of game  $h$  which is equal to  $\frac{6}{6} - \frac{4}{12} = \frac{2}{3}$ .

## C.2 The Cumulative Densities of the Learning Indices

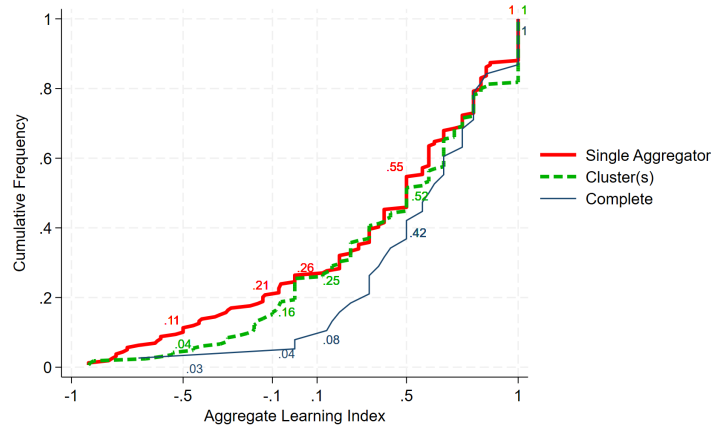


Figure 1: ALI's Cumulative Density

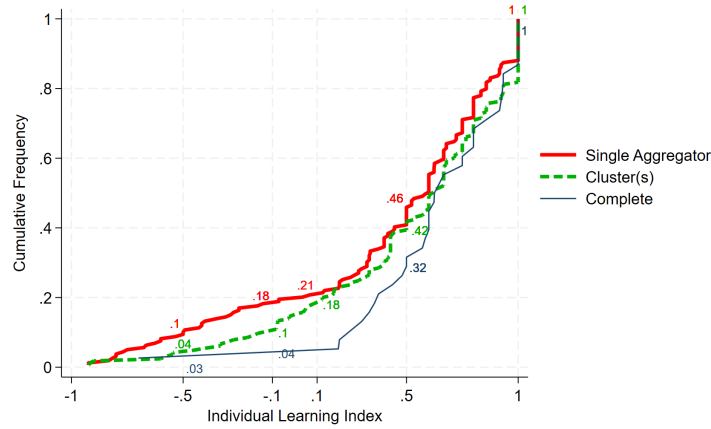


Figure 2: ILI's Cumulative Density

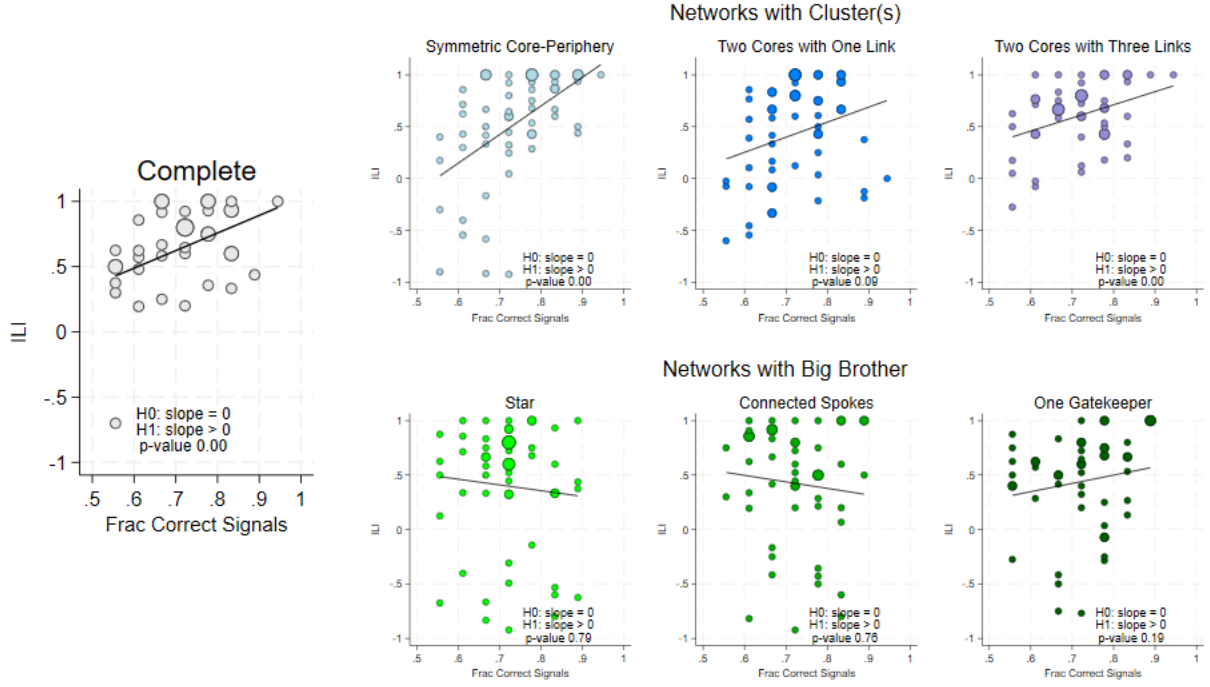


Figure 3: Individual Learning Indices, by network

Notes: The fraction of correct signals is on the horizontal axes. The final round ILI is on the vertical axes. The size of the bubble corresponds to the number of observations. The straight lines are the linear fit. The p-value reports the test for the null hypothesis that the slope of the linear fit equals zero against a one-sided, positive, alternative in a regression using clustered standard errors at the session level.

### C.3 When ILI replaces ALI

In this section we present the analysis in section 4, this time using the Individual Learning Index rather than the Aggregate Learning Index.

#### C.3.1 Figure 2

Figure 3 presents scatter plots of network-specific end-game ILI indices as a function of the fraction of correct initial signals. The bubbles' size corresponds to the number of observations with the same outcome. The pattern presented here largely aligns with the ALI results presented in Section 4.3. Importantly, the classification of non-complete networks to *Single aggregator* networks and *Cluster(s)* networks remains.

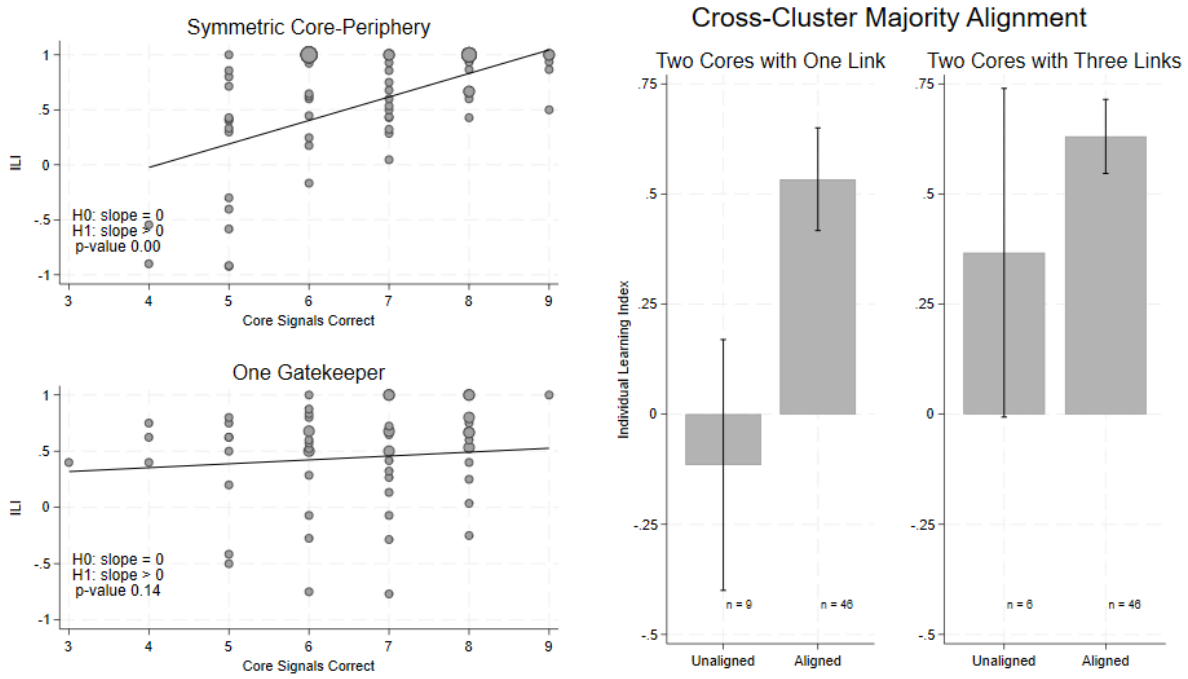


Figure 4: Structural Failures

Notes: The left-hand-side figure plots end-game ILIs in the Symmetric Core Periphery and One Gatekeeper networks as a function of the number of correct signals in the core. The right-hand-side figure plots end-game ILIs in the Two Cores with One Link and Two Cores with Three Links networks as a function of the alignment of majority signals across the two cliques.

### C.3.2 Figure 4

Figure 4 includes two panels. The left-hand-side panel shows that in the Symmetric Core Periphery network, when the core members receive very few correct signals, it performs much worse than the comparable One Gatekeeper networks with a similar distribution of signals. The right-hand-side panel exhibits, in the two cores networks, the limited aggregation of information in cases where each clique receives a different signal as majority. These results are aligned with Figure 4 that uses ALI in the vertical axes.



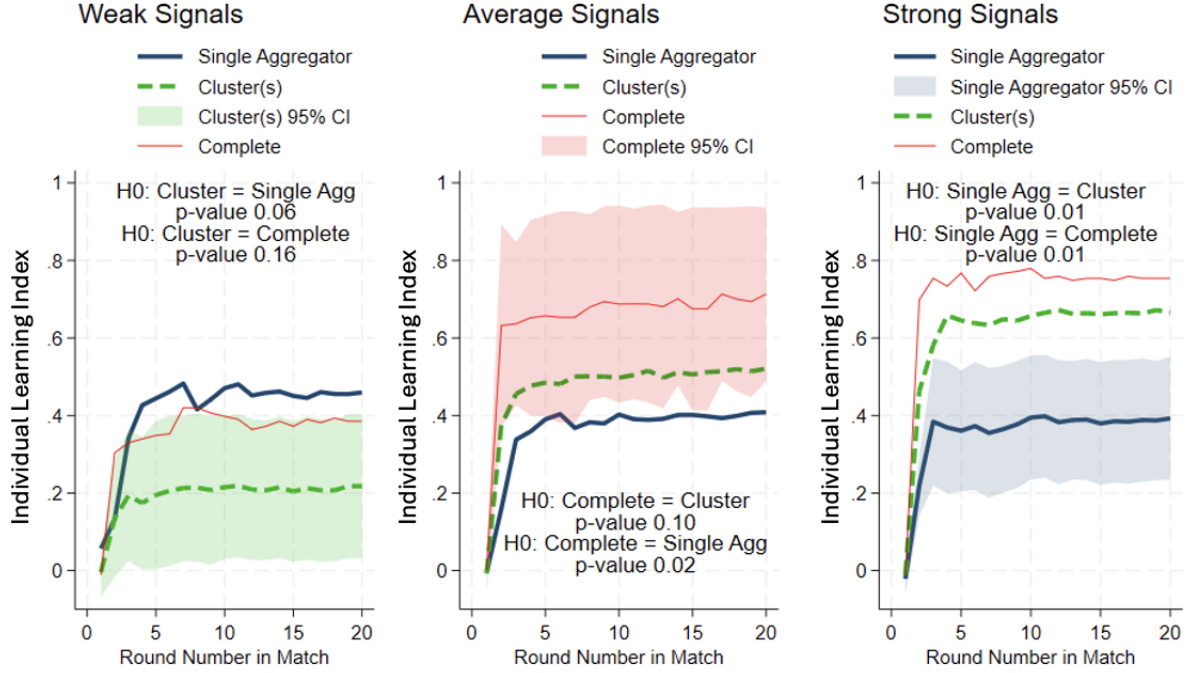


Figure 5: Evolution of ILI Index as the Game Progresses

**Notes:** The figure presents the average ILI per round, across network groups and signal quality. For readability, we present the 95% confidence intervals only for the network group that most differs from the others, using clustered standard errors at the session level. The reported p-values use these clustered standard errors to evaluate the null hypotheses that the most different group's mean ILI differs from the other groups' ILIs in round 20. As there are no noticeable movements beyond round 20, the horizontal lines end there.

### C.3.3 Figure 5

Figure 5 documents the average progression of ILI over the first 20 rounds by group of networks and by the quality of the signals. It provides two main insights. First, as demonstrated in Figures 2 and 3, while the performance of the Complete network and of the Cluster(s) networks improve when the signal are stronger, the performance of the Single Aggregator networks is not sensitive to the quality of the signals. Second, most of the information aggregation takes place in the first three rounds. Figure 5 provides the exact same insights.

### C.4 Figure 6

As in Figure 6, each dot in Figure 6 represents a single game. The vertical axis indicates the ILI for that game when played on the One Gatekeeper network in the standard setting, while the horizontal axis shows the ILI in the One Gatekeeper Scripted treatment. Dots lying below (above) the 45-degree line correspond to games in which information aggregation was less (more) effective in the scripted treatment. Thus, Figure 6 demonstrates that taking the gatekeeper's signal—while

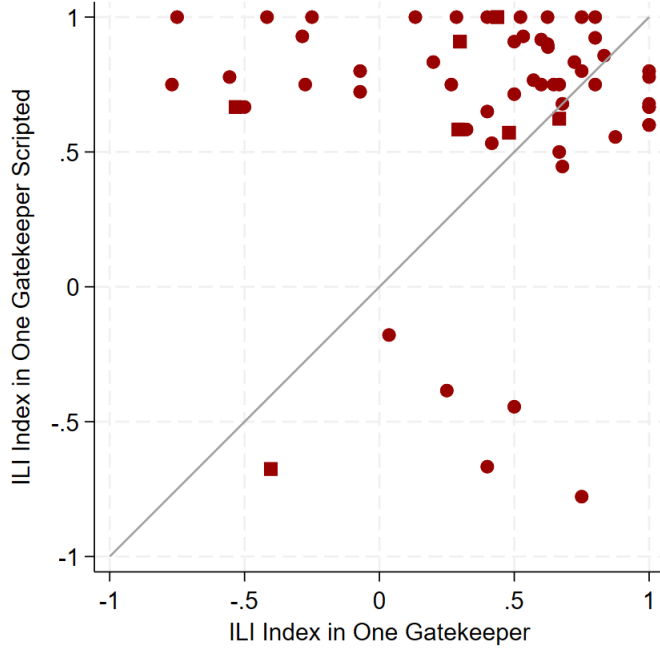


Figure 6: One Gatekeeper vs. One Gatekeeper Scripted

Notes: We remove two games in which there were nine signals of each state. Each dot represents a game. The horizontal axis takes the value of the ILI when this game was played in the One Gatekeeper Scripted session and the vertical axis takes the value of the ILI when this game was played in the standard One Gatekeeper session. Round markers correspond to matched pairs where both of the treatments converged in less than 50 rounds and square markers correspond to matched pairs where the unscripted treatment did not converge in 50 rounds.

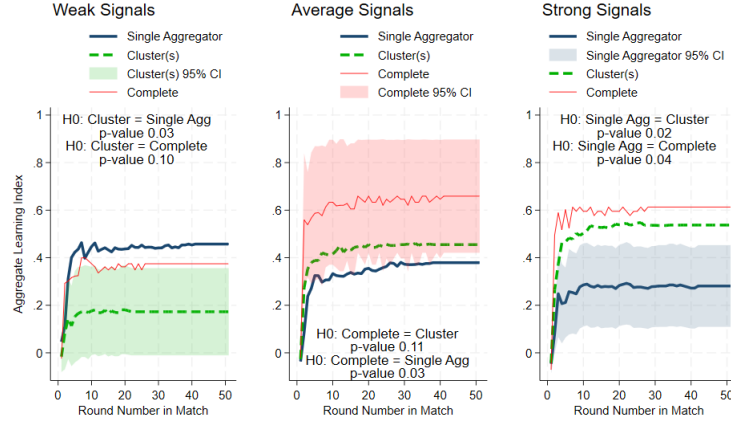
holding all other features of the environment constant—led to improved overall learning in the One Gatekeeper network. Using a binomial probability test, we reject the hypothesis that a dot is equally likely to lie above or below the 45-degree line ( $p \approx 0.002$ ).

### C.5 Convergence of Aggregate Learning Index Averages

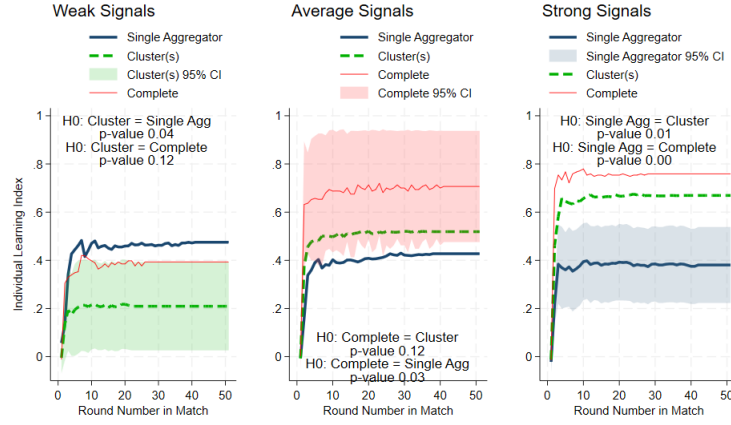
Figure 5 presents the time series of average ALI Indices truncated to rounds 1-20. This truncation was because there was little dynamics apparent beyond round 20. Figure 7 presents the full time series, which clearly doesn't feature significant variation beyond the first 20 rounds.

To test convergence of these averages, we computed the average ALI over rounds 1-14, rounds 15-24, rounds 25-34, and rounds 35+ for each game. We then computed the average within each of these groups of rounds and tested for differences in the mean for these average after round 14. As seen in Table 3, the average ALI across networks is within a single standard error of each other for each of the three period windows after round 14.

Pairwise t-tests with a Bonferroni correction demonstrate that even the average difference between the first window period and the later window periods do not survive multiple comparisons adjustments. The detailed results are presented in Table 4.



(a) Evolution of ALI Index as the Game Progresses



(b) Evolution of ILI Index as the Game Progresses

Figure 7: Long-run dynamics of ALI and ILI indices over the course of the game.

Notes: The figure presents the results for Figures 5 and 12 extended to the final round of each game.

Period Window	NObs	Average ALI	SE Mean ALI	Average ILI	SE Mean ILI
1 - 14	362	0.329	0.022	0.418	0.022
15 - 24	362	0.400	0.026	0.478	0.025
25 - 34	362	0.408	0.026	0.483	0.025
35 +	362	0.411	0.026	0.485	0.025
Overall	1,448	0.387	0.012	0.466	0.012

Table 3: Average Learning Indices over Different Periods

Panel A: Aggregate Learning Index						
Round Window Comparison	Contrast	Standard Error	Bonferroni t	P> t	Bonferroni [95% conf. interval]	
1-14 vs 15-24	0.071	0.035	2.01	0.270	-0.022	0.163
1-14 vs 25-34	0.079	0.035	2.25	0.146	-0.014	0.172
1-14 vs 35+	0.082	0.035	2.33	0.120	-0.011	0.175
15-24 vs 25-34	0.009	0.035	0.25	1.000	-0.084	0.102
15-24 vs 35+	0.011	0.035	0.32	1.000	-0.082	0.104
25-34 vs 35+	0.003	0.035	0.08	1.000	-0.090	0.096

Panel B: Individual Learning Index						
Round Window Comparison	Contrast	Standard Error	Bonferroni t	P> t	Bonferroni [95% conf. interval]	
1-14 vs 15-24	0.060	0.034	1.76	0.471	-0.030	0.151
1-14 vs 25-34	0.065	0.034	1.91	0.341	-0.025	0.156
1-14 vs 35+	0.067	0.034	1.96	0.301	-0.023	0.158
15-24 vs 25-34	0.005	0.034	0.15	1.000	-0.086	0.096
15-24 vs 35+	0.007	0.034	0.20	1.000	-0.084	0.097
25-34 vs 35+	0.002	0.034	0.05	1.000	-0.059	0.092

Table 4: Significance of Contrasts in ALI across Period Windows

## C.6 Robustness Tests for Differences in Learning Indices by Network Type

In order to test the robustness of the results presented in Figure 5, we test for the differences in the Individual Learning and Aggregate Learning Indices by network type under a myriad of regression specifications for included control variables and panel data treatments (Fixed Effects vs Random Effects).

Table 5 describes the included variables for each specification by specification index, which represents all combinations of the six variables: Maximum Round in game, Categorical Measure of Information Quality (weak/average/strong), Dummy Variables for game Number 1-10, % of Correct Signals and its Square. The table also presents reference values for each included variable to estimate the learning index.

Table 6 presents the p-values for the significance in the difference estimated learning index across network types for each regression specification. The bold entries in the table denote p-values greater than 5%. The rare frequency of these deviations towards insignificance demonstrates the robustness of the differences identified in Figure 5.

Panel A presents the results where the reference estimates of the Learning Index are calculated for a pooled information environment. The results demonstrate a clear contrasts for the Complete network across most specifications, with less power coming from the Random Effects specifications. The contrasts between the Cluster and Single Aggregator networks are less clear, largely due to the pooled information setting corresponding roughly to an Average Signal setting in which these networks perform most similarly.

Panel B provides results differentiating the reference estimates of the Learning Index between Weak Signal, Average Signal, and Strong Signal information environments. These results align closely with the significant patterns presented in Figure 5.

	Maximum Round	Discrete Info Quality	Game Number	% Signal Correct	\$ Signal Correct Sq
Spec 1	Y	.	.	.	.
Spec 2	Y	Y	.	.	.
Spec 3	Y	Y	Y	.	.
Spec 4	Y	.	.	Y	.
Spec 5	Y	.	.	Y	Y
Spec 6	Y	.	Y	Y	Y
Spec 7	.	Y	.	.	.
Spec 8	.	Y	Y	.	.
Spec 9	.	.	.	Y	.
Spec 10	.	.	.	Y	Y
Spec 11	.	.	Y	Y	Y
Spec 12	Y	.	Y	.	.
Spec 13	.	.	Y	.	.
Contrast		78/362 Low			
Reference	11	+ 147/362 Medium	5	0.7	0.49
Value		+ 137/362 High			

Table 5: Included Variables and Reference Values for Robustness Check Specifications

Panel A: Pooled Information Environments

Model	ALI Fixed Effects				ALI Fixed Effects				ALI Random Effects				ILI Random Effects			
	Contrast / Spec	Clust vs Compl	Clust vs Sin Agg	vs Compl	Sin Agg vs Compl	Clust vs Compl	Clust vs Sin Agg	vs Compl	Sin Agg vs Compl	Clust vs Compl	Clust vs Sin Agg	vs Compl	Sin Agg vs Compl	Clust vs Compl	Clust vs Sin Agg	vs Compl
1		0.000	<b>0.075</b>	0.000	0.000	0.000	0.015	0.000	<b>0.232</b>	0.009	<b>0.232</b>	0.001	0.005	<b>0.054</b>	0.001	0.001
2		0.000	<b>0.090</b>	0.000	0.000	0.000	0.014	0.000	<b>0.246</b>	0.003	<b>0.246</b>	0.001	0.001	<b>0.072</b>	0.000	0.000
3		0.004	<b>0.754</b>	0.003	0.006	0.026	<b>0.359</b>	0.006	<b>0.595</b>	<b>0.059</b>	<b>0.595</b>	0.026	<b>0.193</b>	<b>0.235</b>	0.031	0.031
4		0.000	<b>0.880</b>	0.000	0.000	0.000	<b>0.370</b>	0.000	<b>0.883</b>	0.002	<b>0.883</b>	0.004	0.001	<b>0.475</b>	0.001	0.001
5		0.000	0.020	0.000	0.000	0.000	0.001	0.000	<b>0.113</b>	0.004	<b>0.113</b>	0.000	0.003	0.013	0.000	0.000
6		0.007	<b>0.641</b>	0.006	0.006	0.033	<b>0.265</b>	0.007	<b>0.441</b>	<b>0.125</b>	<b>0.441</b>	0.039	<b>0.295</b>	<b>0.148</b>	0.037	0.037
7		0.000	<b>0.056</b>	0.000	0.000	0.000	0.006	0.000	<b>0.225</b>	0.011	<b>0.225</b>	0.000	0.003	<b>0.065</b>	0.000	0.000
8		0.013	<b>0.687</b>	0.008	0.008	<b>0.068</b>	<b>0.350</b>	0.017	<b>0.481</b>	<b>0.212</b>	<b>0.481</b>	<b>0.077</b>	<b>0.449</b>	<b>0.180</b>	<b>0.073</b>	0.000
9		0.000	<b>0.734</b>	0.000	0.000	0.000	<b>0.238</b>	0.000	<b>0.743</b>	0.006	<b>0.743</b>	0.003	0.002	<b>0.355</b>	0.000	0.000
10		0.000	0.012	0.000	0.000	0.000	0.000	0.000	<b>0.090</b>	0.005	<b>0.090</b>	0.000	0.005	0.010	0.000	0.000
11		0.026	<b>0.539</b>	0.014	0.014	<b>0.090</b>	<b>0.219</b>	0.018	<b>0.327</b>	<b>0.322</b>	<b>0.327</b>	<b>0.081</b>	<b>0.534</b>	<b>0.105</b>	<b>0.065</b>	0.000
12		<b>0.083</b>	<b>0.703</b>	0.044	0.044	<b>0.308</b>	<b>0.285</b>	0.048	<b>0.487</b>	<b>0.302</b>	<b>0.487</b>	<b>0.102</b>	<b>0.778</b>	<b>0.158</b>	<b>0.115</b>	0.000
13		<b>0.265</b>	<b>0.596</b>	<b>0.122</b>	<b>0.122</b>	<b>0.618</b>	<b>0.247</b>	<b>0.122</b>	<b>0.339</b>	<b>0.698</b>	<b>0.339</b>	<b>0.206</b>	<b>0.895</b>	<b>0.108</b>	<b>0.175</b>	0.000

Panel B: Differentiated Information Environments

Model	ALI Fixed Effects				ALI Fixed Effects				ALI Random Effects				ILI Random Effects			
	Contrast / Spec	Clust vs Compl	Clust vs Sin Agg	vs Compl	Sin Agg vs Compl	Clust vs Compl	Clust vs Sin Agg	vs Compl	Sin Agg vs Compl	Clust vs Compl	Clust vs Sin Agg	vs Compl	Sin Agg vs Compl	Clust vs Compl	Clust vs Sin Agg	vs Compl
<i>Weak Signal Reference</i>																
2		0.002	0.000	<b>0.064</b>	<b>0.081</b>	0.002	0.000	<b>0.052</b>	0.004	0.010	0.000	<b>0.138</b>	0.008	0.000	<b>0.172</b>	0.000
3		0.023	0.002	<b>0.375</b>	<b>0.378</b>	<b>0.052</b>	0.004	<b>0.378</b>	0.015	<b>0.051</b>	0.015	<b>0.650</b>	<b>0.147</b>	0.035	<b>0.554</b>	0.000
7		0.002	0.000	<b>0.064</b>	<b>0.086</b>	0.003	0.000	<b>0.086</b>	0.000	0.016	0.000	<b>0.164</b>	0.014	0.000	<b>0.212</b>	0.000
8		<b>0.058</b>	0.002	<b>0.254</b>	<b>0.241</b>	<b>0.121</b>	0.005	<b>0.241</b>	0.029	<b>0.164</b>	0.029	<b>0.449</b>	<b>0.328</b>	<b>0.062</b>	<b>0.426</b>	0.000
<i>Average Signal Reference</i>																
2		0.000	<b>0.143</b>	0.000	0.000	0.000	<b>0.070</b>	0.000	<b>0.266</b>	0.000	<b>0.266</b>	0.000	0.000	<b>0.146</b>	0.000	0.000
3		0.000	<b>0.649</b>	0.000	0.001	0.004	<b>0.343</b>	0.001	<b>0.513</b>	<b>0.063</b>	<b>0.513</b>	0.022	<b>0.261</b>	<b>0.218</b>	0.042	0.042
7		0.000	<b>0.112</b>	0.000	0.000	0.000	0.042	0.000	<b>0.254</b>	0.000	<b>0.254</b>	0.000	0.001	<b>0.127</b>	0.000	0.000
8		0.000	<b>0.565</b>	0.000	0.001	0.008	<b>0.296</b>	0.001	<b>0.407</b>	<b>0.162</b>	<b>0.407</b>	0.043	<b>0.465</b>	<b>0.163</b>	<b>0.068</b>	0.000
<i>Strong Signal Reference</i>																
2		<b>0.536</b>	0.000	0.000	0.000	<b>0.814</b>	0.000	0.000	0.000	<b>0.800</b>	0.000	0.001	<b>0.598</b>	0.000	0.000	0.000
3		<b>0.212</b>	0.017	0.002	0.001	<b>0.260</b>	0.002	0.001	0.028	<b>0.146</b>	0.028	0.002	<b>0.274</b>	0.003	0.001	0.001
7		<b>0.420</b>	0.000	0.000	0.000	<b>0.974</b>	0.000	0.000	0.000	<b>0.813</b>	0.000	0.001	<b>0.506</b>	0.000	0.000	0.000
8		<b>0.468</b>	0.015	0.007	0.003	<b>0.561</b>	0.002	0.003	0.021	<b>0.487</b>	0.021	0.010	<b>0.645</b>	0.002	0.002	0.004

Table 6: Significance of Differences in Estimated Index Across Specifications

Network Name	All Games		Games 6-10	
	False	True	False	True
Complete	8.48	91.52	6.28	93.72
Star	7.14	92.86	5.75	94.25
Connected Spokes	8.23	91.77	8.43	91.57
One Gatekeeper	8.82	91.18	8.73	91.27
Symmetric Core Periphery	5.75	94.25	5.17	94.83
Two Cores with One Link	7.88	92.12	7.54	92.46
Two Cores with Three Links	8.97	91.03	8.81	91.19
Total	7.83	92.17	7.26	92.74

Table 7: Frequencies of participants’ first guesses match their signal by network

## D Positional Analysis Robustness Tests

### D.1 Round 1 Behavior

Initial positional-level inspection of the data evaluates the frequency with which a subject’s first guess matches the signal they received. Table 3 in the main text provides the frequency in which the first-round guesses coincided with one’s private signal, by network and position. Table 7 presents this frequency broken down by network and for the last 5 games of the session. As can be seen, there is little heterogeneity of the frequency with which first guesses match signal by network. The largest outlier is the Symmetric Core Periphery network, for which subjects’ first guess matches their signals in 94.3% of the observations as opposed to the overall average of 92.2%.

Next we investigate if the differences across networks, though small, may still be statistically reliable. We regress the indicator variable of whether a subject’s first guess matches their signal on dummy variables for the network structure. Standard errors are clustered by session-game and pairwise comparisons are adjusted using a Bonferroni correction. The results, presented in Table 8 show the Symmetric Core Periphery’s status as the only outlier is statistically significant. However, the significance of this difference doesn’t survive accounting for multiple comparisons using a Bonferroni corrected p-value.

Finally, we consider whether network position or local network structure influences the frequency with which a participant’s first guess matches their signal. We categorize nodes as defined in Table 9. As seen in Table 10, there is little variability in the frequency with which participants’ first guesses match their signals by node type. The only outliers are the connectors in the two cores networks and the leafs, but these aren’t statistically significant as seen in the pairwise comparison of averages presented in Table 11.



Pairwise Comparison		Bonferroni			
Network 1	Network 2	Contrast	Std. Err.	t	p-Value
Complete	Two Cores with Three Links	0.005	0.013	0.37	1.000
Symmetric Core Periphery	Two Cores with Three Links	0.032	0.011	2.84	0.101
Two Cores with One Link	Two Cores with Three Links	0.011	0.014	0.80	1.000
One Gatekeeper	Two Cores with Three Links	0.002	0.013	0.11	1.000
Connected Spokes	Two Cores with Three Links	0.007	0.014	0.54	1.000
Star	Two Cores with Three Links	0.018	0.011	1.59	1.000
Symmetric Core Periphery	Complete	0.027	0.012	2.33	0.426
Two Cores with One Link	Complete	0.006	0.014	0.43	1.000
One Gatekeeper	Complete	-0.003	0.014	-0.25	1.000
Connected Spokes	Complete	0.003	0.014	0.18	1.000
Star	Complete	0.013	0.012	1.13	1.000
Two Cores with One Link	Symmetric Core Periphery	-0.021	0.012	-1.76	1.000
One Gatekeeper	Symmetric Core Periphery	-0.031	0.012	-2.60	0.203
Connected Spokes	Symmetric Core Periphery	-0.025	0.012	-2.04	0.893
Star	Symmetric Core Periphery	-0.014	0.010	-1.46	1.000
One Gatekeeper	Two Cores with One Link	-0.009	0.014	-0.67	1.000
Connected Spokes	Two Cores with One Link	-0.003	0.014	-0.24	1.000
Star	Two Cores with One Link	0.007	0.012	0.60	1.000
Connected Spokes	One Gatekeeper	0.006	0.014	0.42	1.000
Star	One Gatekeeper	0.017	0.012	1.41	1.000
Star	Connected Spokes	0.011	0.012	0.88	1.000

Table 8: Bonferroni Tests for Contrast between Frequencies of First Guess Matching Private Signal

Node Type	Networks	Nodes
Single Aggregator	Star	A
	One Gatekeeper	T
	Connected Spokes	T
Cluster	One Gatekeeper	A, B, C, D, E, F, G, H
	Symmetric Core Periphery	A, B, C, D, E, F, G, H, T
	Two Core One Link	All but J, K
	Two Cores Three Links	All but H, K, S, T
	Complete	All Nodes
Core Cluster 1-Link	Two Core One Link	All but J, K
	Two Cores Three Links	A, B, C, D, E, F, G, J
Core Cluster 3-Link	Two Cores Three Links	L, M, N, P, Q, R
Core Connector 1-Link	Two Core One Link	J, K
	Two Cores Three Links	H
Core Connector 3-Link	Two Cores Three Links	K, T, S
Leaf	One Gatekeeper	J, K, L, M, N, P, Q, R, S
	Symmetric Core Periphery	J, K, L, M, N, P, Q, R, S
	Star	All but A
Connected Spokes Big	Connected Spokes	A, B, C, D, E, F, G, H
Connected Spokes Small	Connected Spokes	J, K, L, M, N, P, Q, R, S

Table 9: Aggregate Node Type Definitions

	All Games		Games 6-10	
	False	True	False	True
Single Aggregator	6.92	93.08	5.81	94.19
Cluster	8.12	91.88	6.9	93.1
Core Cluster 1-Link	7.83	92.17	7.89	92.11
Core Cluster 3-Link	7.98	92.02	7.79	92.21
Core Connector 1-Link	5.61	94.39	5.26	94.74
Core Connector 3-Link	13.74	86.26	12.17	87.83
Leaf	6.83	93.17	6.16	93.84
Connected Spokes Big	8.89	91.11	8.62	91.38
Connected Spokes Small	7.91	92.09	8.43	91.57
Total	7.83	92.17	7.26	92.74

Table 10: Frequencies of Participants' First Guesses Match Their Signal by Position

Node Position					
Node A	Node B	Contrast	Std. Err.	Bonferoni	
				t	P> t
Cluster	Single Aggregator	-0.012	0.021	-0.56	1
Core Cluster 1-Link	Single Aggregator	-0.009	0.022	-0.41	1
Core Cluster 3-Link	Single Aggregator	-0.011	0.023	-0.46	1
Core Connector 1-Link	Single Aggregator	0.013	0.030	0.44	1
Core Connector 3-Link	Single Aggregator	-0.068	0.031	-2.17	1
Leaf	Single Aggregator	0.001	0.020	0.04	1
CS Big	Single Aggregator	-0.020	0.026	-0.75	1
CS Small	Single Aggregator	-0.010	0.024	-0.41	1
Core Cluster 1-Link	Cluster	0.003	0.011	0.26	1
Core Cluster 3-Link	Cluster	0.001	0.013	0.1	1
Core Connector 1-Link	Cluster	0.025	0.023	1.08	1
Core Connector 3-Link	Cluster	-0.056	0.025	-2.25	0.908
Leaf	Cluster	0.013	0.008	1.55	1
CS Big	Cluster	-0.008	0.017	-0.46	1
CS Small	Cluster	0.002	0.014	0.16	1
Core Cluster 3-Link	Core Cluster 1-Link	-0.002	0.015	-0.1	1
Core Connector 1-Link	Core Cluster 1-Link	0.022	0.023	0.98	1
Core Connector 3-Link	Core Cluster 1-Link	-0.059	0.026	-2.27	0.86
Leaf	Core Cluster 1-Link	0.010	0.011	0.95	1
CS Big	Core Cluster 1-Link	-0.011	0.018	-0.59	1
CS Small	Core Cluster 1-Link	-0.001	0.015	-0.05	1
Core Connector 1-Link	Core Cluster 3-Link	0.024	0.023	1.05	1
Core Connector 3-Link	Core Cluster 3-Link	-0.058	0.026	-2.21	0.986
Leaf	Core Cluster 3-Link	0.011	0.013	0.92	1
CS Big	Core Cluster 3-Link	-0.009	0.019	-0.47	1
CS Small	Core Cluster 3-Link	0.001	0.016	0.04	1
Core Connector 3-Link	Core Connector 1-Link	-0.081	0.034	-2.39	0.632
Leaf	Core Connector 1-Link	-0.012	0.023	-0.53	1
CS Big	Core Connector 1-Link	-0.033	0.027	-1.2	1
CS Small	Core Connector 1-Link	-0.023	0.025	-0.91	1
Leaf	Core Connector 3-Link	0.069	0.025	2.8	0.196
CS Big	Core Connector 3-Link	0.048	0.029	1.68	1
CS Small	Core Connector 3-Link	0.058	0.027	2.17	1
CS Big	Leaf	-0.021	0.017	-1.25	1
CS Small	Leaf	-0.011	0.013	-0.83	1
CS Small	CS Big	0.010	0.017	0.58	1

Table 11: Pairwise Comparisons of Frequency First Guess Matches Signal by Node's Position

## D.2 Round 2 Behavior

### D.2.1 Characterizing Second Round Behavior - Table 4 Robustness

Table 4 in the main text presents the results with which participants submitted the correct guesses in Round 2. These results included two definitions, one for the “Correct Guess” and one for the “Round 1 Minority Status.” There are two natural characterizations of the “Correct Guess”:

- Correct Guess 1: A correct guess matches the majority of neighbors’ Round 1 guesses coupled with the Participant’s *Round 1 Guess*.
- Correct Guess 2: A correct guess matches the majority of neighbors’ Round 1 guesses coupled with the Participant’s *signal*.

In addition, there are two natural characterizations of the “Round 1 Minority Status”:

- Local Minority 1: The participant’s Round 1 guess coincides with the minority of neighbors’ Round 1 guesses coupled with the Participant’s *Round 1 Guess*.
- Local Minority 2: The participant’s signal coincides with the minority of neighbors’ Round 1 guesses coupled with the Participant’s *signal*.

Table 4 presents results for Correct Guess 1 based on Local Minority 1, determining correctness and minority status based on observed actions. Here we present all results in Table 12. Panel A presents the overall accuracy rates for both Correct Guess 1 and Correct Guess 2. Panel B is broken down into four components:

- Panel B.1 reports on Correct Guess 1 with Local Minority 1
- Panel B.2 reports on Correct Guess 2 with Local Minority 1
- Panel B.3 reports on Correct Guess 1 with Local Minority 2
- Panel B.4 reports on Correct Guess 2 with Local Minority 2

As is apparent, each of these specifications yield nearly identical results.

### D.2.2 Determinants of Second Round Behavior - Table 5: Robustness

**Different Definitions of Correct and Minority** In the main body of the paper, Table 5, explores the relationship between informational, positional, and individual characteristics and accurate guessing behavior in round 2. As in the previous subsection, there are two natural characterizations of the “Correct Guess”:

- Correct Guess 1: A correct guess matches the majority of neighbors’ Round 1 guesses coupled with the Participants’ Round 1 Guess.

	Benchmark Complete		Single Aggregator Networks						Cluster(s) networks					
			Star		Connected Spokes		One Gatekeeper		Symmetric Core Periphery		Two Cores One Link		Two Cores Three Links	
Panel A: Overall														
Correct Guess 1	87%		79%		88%		77%		87%		84%		82%	
Correct Guess 2	87%		79%		87%		77%		86%		84%		82%	
Panel B.1: Correct Guess 1 Minority Definition 1														
All Nodes Single Aggregators Cluster Members Connectors	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min
	98%	62%	97%	48%	95%	54%	96%	35%	95%	58%	95%	57%	94%	54%
			97%	48%	91%	61%	100%	59%						
	98%	62%			95%	53%	95%	31%	95%	58%	95%	56%	95%	52%
											97%	71%	90%	65%
Panel B.2: Correct Guess 2 Minority Definition 1														
All Nodes Single Aggregators Cluster Members Connectors	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min
	98%	62%	97%	48%	94%	54%	95%	35%	95%	58%	95%	57%	94%	54%
			97%	48%	91%	61%	100%	59%						
	98%	62%			94%	53%	94%	31%	95%	58%	94%	56%	95%	52%
											97%	71%	91%	65%
Panel B.3: Correct Guess 1 Minority Definition 2														
All Nodes Single Aggregators Cluster Members Connectors	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min
	98%	63%	97%	48%	95%	59%	96%	36%	95%	60%	96%	58%	94%	55%
			97%	48%	91%	61%	100%	59%						
	98%	63%			96%	58%	95%	33%	95%	60%	96%	56%	95%	52%
											97%	73%	91%	66%
Panel B.4: Correct Guess 2 Minority Definition 2														
All Nodes Single Aggregators Cluster Members Connectors	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min	maj	min
	98%	62%	97%	48%	95%	51%	96%	34%	95%	56%	96%	56%	94%	53%
			97%	48%	91%	61%	100%	59%						
	98%	62%			96%	50%	95%	31%	95%	56%	96%	55%	95%	51%
											97%	67%	91%	63%

Table 12: Correct Second Round Guesses under Alternative Definitions of “Correct” and “Minority Signal”

Notes: These results expand upon the findings in 4 by providing frequencies of correct second guesses broken down by network, node type, and majority status under alternative definitions. Correct second round guesses are determined by the local majority of a player’s neighbors’ Round 1 guesses coupled with either the player’s round 1 guess (Correct Guess 1) or their signal (Correct Guess 2). Similarly, membership of the local minority is based on a player’s neighbors’ Round 1 guesses coupled with either the player’s round 1 guess (Local Minority 1) or their signal (Local Minority 2). Ties are excluded from these averages.

- Correct Guess 2: A correct guess matches the majority of neighbors’ Round 1 guesses coupled with the Participants’ signal.

Also, there are two natural characterizations of the “Round 1 Minority Status”:

- Local Minority 1: The participant’s Round 1 guess coincides with the minority of neighbors’ Round 1 guesses coupled with the Participants’ Round 1 Guess.
- Local Minority 2: The participant’s signal coincides with the minority of neighbors’ Round 1 guesses coupled with the Participants’ signal.

The main body’s Table 5 presents results for Correct Guess 1 based on Local Minority 1. Here we present results for the other specifications in Table 13, broken down into four components:

- Panel A reports on Correct Guess 1 with Local Minority 1
- Panel B reports on Correct Guess 1 with Local Minority 2
- Panel C reports on Correct Guess 2 with Local Minority 1

- Panel D reports on Correct Guess 2 with Local Minority 2

As is apparent, each of these specifications yield essentially identical results. The only apparent difference lies in the significance of the node’s degree centrality, which loses significance in the specification for Panel B, in which correctness of a guess is based on a player’s action but the minority status is based on their signal.

**Regression Model Specifications: Fixed Effects** Table 5 includes fixed effects at the session-game level. We consider four different models of fixed effects in the regression model:

- Panel A reports results with Session-level Fixed Effects,
- Panel B reports results with No Fixed Effects,
- Panel C reports results with Session-Participant Fixed Effects, and,
- Panel D reports results with Match-Participant Fixed Effects.

As reported in Table 14, the results significance patterns line up with those presented in Table 5.

**Regression Model Specifications: Logit and Probit** In addition to the linear probability model reported in Table 5, we could have applied the Logit and Probit models. These results are reported in Table 15 and largely align with the results presented in Table 5.

**Regression Model Specifications: Clustering** We consider different specifications for clustering the standard errors in the regression model. Table 5 presents results clustering at the participant level. In Table 16 we also consider the following strategies for clustering standard errors:

- Panel A reports results with clustering at the Session Level,
- Panel B reports results with clustering at the Match Level,
- Panel C reports results with two-way clustering at the Participant and Session Level, and,
- Panel D reports results with two-way clustering at the Participant and Match Level.

The standard errors shift slightly across these specifications but the pattern of significance is consistent for any clustering model.

Dependent Variable: Correct Round 2 Guess 1 (Given R1 Guess)								
	Panel A: Local Minority 1 (Given R1 Action)				Panel B: Local Minority 2 (Given R1 Signal)			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	0.948*** (0.00499)	0.953*** (0.0269)	0.942*** (0.0274)	0.923*** (0.0322)	0.943*** (0.00526)	0.876*** (0.0271)	0.908*** (0.0286)	0.884*** (0.0361)
Minority Status								
In R1 Minority	-0.396*** (0.0190)	-0.414*** (0.0200)	-0.358*** (0.0475)	-0.346*** (0.0468)	-0.376*** (0.0183)	-0.398*** (0.0216)	-0.489*** (0.0682)	-0.478*** (0.0675)
Local Min Size		-0.175*** (0.0495)	-0.0416 (0.0465)	-0.0331 (0.0459)		0.00731 (0.00571)	-0.00387 (0.00576)	-0.00365 (0.00571)
In R1 Minority × Local Min Size			-0.820*** (0.127)	-0.819*** (0.126)			0.0267*** (0.00955)	0.0264*** (0.00945)
Node Characteristics								
Degree Centrality		0.0935* (0.0488)	0.0401 (0.0498)	0.0310 (0.0493)		0.0939* (0.0494)	0.0761 (0.0508)	0.0662 (0.0496)
Degree Centrality × In R1 Minority			0.278*** (0.0762)	0.288*** (0.0747)			0.0636 (0.124)	0.0745 (0.121)
Individual Controls								
Incorrect R1 Guess				-0.120*** (0.0305)				-0.114*** (0.0340)
Gender				0.00885 (0.0123)				0.0137 (0.0143)
Prob Matching				-0.0493*** (0.0149)				-0.0464** (0.0181)
Risk Aversion				0.0505** (0.0255)				0.0466 (0.0297)
R-squared	0.243	0.245	0.262	0.275	0.229	0.231	0.234	0.246
# of Obs	4,310	4,310	4,310	4,310	4,310	3,299	3,299	3,299
# of Clusters	756	756	756	756	756	649	649	649
# of Match FEs	359	359	359	359	359	323	323	323
Dependent Variable: Correct Round 2 Guess 1 (Given R1 Signal)								
	Panel C: Local Minority 1 (Given R1 Action)				Panel D: Local Minority 2 (Given R1 Signal)			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	0.945*** (0.00504)	0.960*** (0.0263)	0.951*** (0.0270)	0.934*** (0.0320)	0.946*** (0.00483)	0.860*** (0.0271)	0.926*** (0.0268)	0.906*** (0.0348)
Minority Status								
In R1 Minority	-0.391*** (0.0189)	-0.413*** (0.0200)	-0.364*** (0.0477)	-0.350*** (0.0466)	-0.394*** (0.0181)	-0.428*** (0.0214)	-0.633*** (0.0608)	-0.619*** (0.0587)
Local Min Size		-0.217*** (0.0513)	-0.0947* (0.0500)	-0.0841* (0.0480)		0.0139** (0.00569)	-0.000708 (0.00574)	-0.000346 (0.00563)
In R1 Minority × Local Min Size			-0.758*** (0.128)	-0.757*** (0.127)			0.0338*** (0.00928)	0.0333*** (0.00915)
Node Characteristics								
Degree Centrality		0.0985** (0.0482)	0.0475 (0.0496)	0.0367 (0.0489)		0.106** (0.0484)	0.0274 (0.0462)	0.0154 (0.0447)
Degree Centrality × In R1 Minority			0.263*** (0.0764)	0.274*** (0.0747)			0.273** (0.112)	0.285*** (0.109)
Individual Controls								
Incorrect R1 Guess				-0.149*** (0.0309)				-0.143*** (0.0310)
Gender				0.0102 (0.0124)				0.0142 (0.0142)
Prob Matching				-0.0509*** (0.0152)				-0.0498*** (0.0178)
Risk Aversion				0.0469* (0.0256)				0.0438 (0.0292)
R-squared	0.235	0.239	0.253	0.271	0.251	0.261	0.268	0.284
# of Obs	4,310	4,310	4,310	4,310	4,310	3,299	3,299	3,299
# of Clusters	756	756	756	756	756	649	649	649
# of Match FEs	359	359	359	359	359	323	323	323

Table 13: Individual Factors Related to Correct Second Round Guesses under Alternative Definitions of “Correct” and “Minority Signal”

Notes: These results expand upon the findings in Table 5 with different definitions of local majorities. These are linear regressions with clustering at the participant level including session-game fixed effects. The sample includes only nodes with two or more neighbors and excludes local ties. In R1 Minority is an indicator that equals one when R1 guess was not the most popular in one's local neighborhood in the first round. Local Minority Size is the percentage of the local minority in the neighborhood. Node degree centrality is calculated as the number of neighbors divided by the largest number of neighbors one can have in our networks (17). Individual controls include the risk attitude measure, the probability matching measure, the indicator of submitting a wrong guess in the first round, and gender. Correct second round guesses are determined by the local majority of a player's neighbors' Round 1 guesses coupled with either the player's round 1 guess (Correct Guess 1) or their signal (Correct Guess 2). Similarly, membership of the local minority is based on a player's neighbors' Round 1 guesses coupled with either the player's round 1 guess (Local Minority 1) or their signal (Local Minority 2). \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

	Session Fixed Effects				No Fixed Effects			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	0.952*** (0.00487)	0.961*** (0.0262)	0.947*** (0.0265)	0.928*** (0.0318)	0.952*** (0.00471)	0.976*** (0.0161)	0.959*** (0.0106)	0.931*** (0.0221)
<i>Minority Status</i>								
In R1 Minority	-0.408*** (0.0194)	-0.419*** (0.0195)	-0.363*** (0.0483)	-0.352*** (0.0480)	-0.410*** (0.0197)	-0.424*** (0.0197)	-0.367*** (0.0489)	-0.354*** (0.0485)
Local Min Size		-0.201*** (0.0347)	-0.0650** (0.0297)	-0.0600** (0.0294)		-0.228*** (0.0337)	-0.0881*** (0.0260)	-0.0790*** (0.0260)
In R1 Minority × Local Min Size			-0.772*** (0.130)	-0.775*** (0.129)			-0.753*** (0.133)	-0.759*** (0.132)
<i>Node Characteristics</i>								
Degree Centrality		0.0957** (0.0486)	0.0457 (0.0497)	0.0368 (0.0490)		0.0842*** (0.0232)	0.0364** (0.0142)	0.0430*** (0.0146)
Degree Centrality × In R1 Min			0.257*** (0.0761)	0.268*** (0.0750)			0.250*** (0.0775)	0.261*** (0.0762)
<i>Individual Controls</i>								
Incorrect R1 Guess				-0.112*** (0.0303)				-0.119*** (0.0303)
Gender				0.0100 (0.0122)				0.0206 (0.0126)
Prob Matching				-0.0533*** (0.0151)				-0.0497*** (0.0153)
Risk Aversion				0.0517** (0.0256)				0.0201 (0.0225)
R-squared	0.249	0.255	0.269	0.282	0.249	0.258	0.271	0.284
# of Obs	4,310	4,310	4,310	4,310	4,310	4,310	4,310	4,310
# of Clusters	756	756	756	756	756	756	756	756
# of FEs	41	41	41	41	0	0	0	0

	Session & Participant Fixed Effects				Match & Participant Fixed Effects			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	0.948*** (0.00563)	0.947*** (0.0275)	0.943*** (0.0280)	0.945*** (0.0281)	0.945*** (0.00561)	0.939*** (0.0291)	0.936*** (0.0294)	0.938*** (0.0295)
<i>Minority Status</i>								
In R1 Minority	-0.391*** (0.0199)	-0.402*** (0.0198)	-0.375*** (0.0475)	-0.372*** (0.0476)	-0.381*** (0.0199)	-0.399*** (0.0208)	-0.369*** (0.0467)	-0.366*** (0.0466)
Local Min Size		-0.205*** (0.0367)	-0.0754** (0.0343)	-0.0739** (0.0342)		-0.162*** (0.0552)	-0.0444 (0.0535)	-0.0427 (0.0535)
In R1 Minority × Local Min Size			-0.771*** (0.127)	-0.771*** (0.127)			-0.746*** (0.128)	-0.746*** (0.128)
<i>Node Characteristics</i>								
Degree Centrality		0.117** (0.0492)	0.0497 (0.0514)	0.0490 (0.0514)		0.107** (0.0506)	0.0451 (0.0527)	0.0442 (0.0526)
Degree Centrality × In R1 Min			0.314*** (0.0765)	0.313*** (0.0765)			0.295*** (0.0767)	0.294*** (0.0766)
<i>Individual Controls</i>								
Incorrect R1 Guess				-0.0233 (0.0343)				-0.0294 (0.0344)
Gender								
Prob Matching								
Risk Aversion								
R-squared	0.451	0.456	0.469	0.469	0.501	0.502	0.513	0.514
# of Obs	4,256	4,256	4,256	4,256	4,233	4,233	4,233	4,233
# of Clusters	702	702	702	702	691	691	691	691
# of FEs	874	874	874	874	1195	1195	1195	1195

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 14: Individual Factors Related to Correct Second Round Guesses under Alternative Fixed Effects Treatments

**Notes:** These results expand upon the findings in 5 with various fixed effects treatments. These are linear regressions with clustering at the participant level. The sample includes only nodes with two or more neighbors and excludes local ties. In R1 Minority is an indicator that equals one when R1 guess was not the most popular in one's local neighborhood in the first round. Local Minority Size is the percentage of the local minority in the neighborhood. Node degree centrality is calculated as the number of neighbors divided by the largest number of neighbors one can have in our networks (17). Individual controls include the risk attitude measure, the probability matching measure, the indicator of submitting a wrong guess in the first round, and gender.



	Panel A: Logit Model				Panel B: Probit Model			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	2.076* (1.082)	2.300* (1.303)	2.235 (1.367)	1.803 (1.482)	1.112** (0.440)	1.241** (0.505)	1.233** (0.520)	0.998* (0.551)
<i>Minority Status</i>								
In R1 Minority	-3.083*** (0.147)	-3.414*** (0.186)	-3.223*** (0.436)	-3.217*** (0.436)	-1.735*** (0.0746)	-1.891*** (0.0908)	-1.788*** (0.214)	-1.793*** (0.215)
Local Min Size		-2.646*** (0.648)	-1.705** (0.826)	-1.625** (0.824)		-1.321*** (0.327)	-0.837** (0.385)	-0.835** (0.387)
In R1 Minority × Local Min Size			-2.296** (0.978)	-2.492** (1.002)			-1.481*** (0.505)	-1.487*** (0.514)
<i>Node Characteristics</i>								
Degree Centrality		1.460*** (0.550)	1.019* (0.614)	0.914 (0.626)		0.655** (0.291)	0.429 (0.300)	0.404 (0.302)
Degree Centrality × In R1 Min			0.880* (0.530)	1.052* (0.557)			0.578** (0.272)	0.643** (0.285)
<i>Individual Controls</i>								
Incorrect R1 Guess				-0.892*** (0.241)				-0.530*** (0.122)
Gender				0.0931 (0.145)				0.0594 (0.0757)
Prob Matching				-0.586*** (0.165)				-0.333*** (0.0834)
Risk Aversion				0.586** (0.290)				0.306** (0.153)
# of Obs	3,686	3,686	3,686	3,686	3,686	3,686	3,686	3,686
# of Clusters	701	701	701	701	701	701	701	701

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 15: Individual Factors Related to Correct Second Round Guesses under Logit And Probit Regression Models

**Notes:** These results expand upon the findings in 5 with various limited dependent variable models. These are maximum likelihood estimates using the Logit (Panel A) and Probit (Panel B) models with clustering at the participant level. The sample includes only nodes with two or more neighbors and excludes local ties. In R1 Minority is an indicator that equals one when R1 guess was not the most popular in one's local neighborhood in the first round. Local Minority Size is the percentage of the local minority in the neighborhood. Node degree centrality is calculated as the number of neighbors divided by the largest number of neighbors one can have in our networks (17). Individual controls include the risk attitude measure, the probability matching measure, the indicator of submitting a wrong guess in the first round, and gender.

	Panel A: Clustering at Session				Panel B: Clustering at Match			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	0.949*** (0.00801)	0.954*** (0.0336)	0.943*** (0.0387)	0.924*** (0.0416)	0.949*** (0.00479)	0.954*** (0.0312)	0.943*** (0.0297)	0.924*** (0.0336)
Minority Status								
In R1 Minority	-0.396*** (0.0283)	-0.414*** (0.0298)	-0.358*** (0.0572)	-0.346*** (0.0578)	-0.396*** (0.0169)	-0.414*** (0.0175)	-0.358*** (0.0476)	-0.346*** (0.0482)
Local Min Size		-0.175*** (0.0504)	-0.0416 (0.0484)	-0.0331 (0.0492)		-0.175*** (0.0494)	-0.0416 (0.0485)	-0.0331 (0.0469)
In R1 Minority × Local Min Size			-0.820*** (0.156)	-0.819*** (0.159)			-0.820*** (0.142)	-0.819*** (0.143)
Node Characteristics								
Degree Centrality		0.0935* (0.0516)	0.0401 (0.0575)	0.0310 (0.0559)		0.0935* (0.0547)	0.0401 (0.0521)	0.0310 (0.0503)
Degree Centrality × In R1 Minority			0.278*** (0.0813)	0.288*** (0.0831)			0.278*** (0.0662)	0.288*** (0.0674)
Individual Controls								
Incorrect R1 Guess				-0.120*** (0.0299)				-0.120*** (0.0280)
Gender				0.00885 (0.0132)				0.00885 (0.0103)
Prob Matching				-0.0493*** (0.0182)				-0.0493*** (0.0130)
Risk Aversion				0.0505** (0.0209)				0.0505** (0.0212)
R-squared	0.316	0.318	0.333	0.345	0.316	0.318	0.333	0.345
# of Obs	4,254	4,254	4,254	4,254	4,254	4,254	4,254	4,254
# of Clusters	35	35	35	35	303	303	303	303

	Panel C: Two Way Participant × Session				Panel D: Two Way Participant × Match			
	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls	Baseline Model	First Order Model	Interaction Model	Interaction w/Controls
Constant	0.949*** (0.00801)	0.954*** (0.0336)	0.943*** (0.0387)	0.924*** (0.0416)	0.949*** (0.00564)	0.954*** (0.0282)	0.943*** (0.0286)	0.924*** (0.0341)
Minority Status								
In R1 Minority	-0.396*** (0.0283)	-0.414*** (0.0298)	-0.358*** (0.0572)	-0.346*** (0.0578)	-0.396*** (0.0212)	-0.414*** (0.0220)	-0.358*** (0.0546)	-0.346*** (0.0546)
Local Min Size		-0.175*** (0.0504)	-0.0416 (0.0484)	-0.0331 (0.0492)		-0.175*** (0.0465)	-0.0416 (0.0456)	-0.0331 (0.0443)
In R1 Minority × Local Min Size			-0.820*** (0.156)	-0.819*** (0.159)			-0.820*** (0.147)	-0.819*** (0.147)
Node Characteristics								
Degree Centrality		0.0935* (0.0516)	0.0401 (0.0575)	0.0310 (0.0559)		0.0935* (0.0520)	0.0401 (0.0518)	0.0310 (0.0511)
Degree Centrality × In R1 Minority			0.278*** (0.0813)	0.288*** (0.0831)			0.278*** (0.0807)	0.288*** (0.0806)
Individual Controls								
Incorrect R1 Guess				-0.120*** (0.0299)				-0.120*** (0.0320)
Gender				0.00885 (0.0132)				0.00885 (0.0128)
Prob Matching				-0.0493*** (0.0182)				-0.0493*** (0.0152)
Risk Aversion				0.0505** (0.0209)				0.0505* (0.0261)
R-squared	0.316	0.318	0.333	0.345	0.316	0.318	0.333	0.345
# of Obs	4,254	4,254	4,254	4,254	4,254	4,254	4,254	4,254
# of Clusters	35	35	35	35	303	303	303	303

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 16: Individual Factors Related to Correct Second Round Guesses under Alternative Clustering Treatments

Notes: These results expand upon the findings in 5 with various clustering treatments for standard errors. These are linear regressions with session-game fixed effects. The sample includes only nodes with two or more neighbors and excludes local ties. In R1 Minority is an indicator that equals one when R1 guess was not the most popular in one's local neighborhood in the first round. Local Minority Size is the percentage of the local minority in the neighborhood. Node degree centrality is calculated as the number of neighbors divided by the largest number of neighbors one can have in our networks (17). Individual controls include the risk attitude measure, the probability matching measure, the indicator of submitting a wrong guess in the first round, and gender.

### D.3 Determinants of Round 3 Imitation - Table 7: Robustness

**Regression Model Specifications: Fixed Effects** Table 7 includes fixed effects at the session-game level. We consider four different models of fixed effects in the regression model:

- Panel A reports results with Session-level Fixed Effects,
- Panel B reports results with No Fixed Effects,
- Panel C reports results with Session-Participant Fixed Effects, and,
- Panel D reports results with Match-Participant Fixed Effects.

As reported in Table 17, the results significance patterns line up with those presented in Table 7.

**Regression Model Specifications: Logit and Probit Specifications** Table 7 presents linear probability model regressions. For robustness, we present results for the logit and probit regression models in Table 18. As expected there is no real difference in the significance of effects.

**Regression Model Specifications: Clustering Specifications** As a last robustness check, we consider different specifications for clustering the standard errors in the regression model. The results are presented in Table 19. Table 7 presents results while clustering at the participant level. We also consider the following strategies for clustering standard errors:

- Panel A reports results with clustering at the Session Level,
- Panel B reports results with clustering at the Match Level,
- Panel C reports results with two-way clustering at the Participant and Session Level, and,
- Panel D reports results with two-way clustering at the Participant and Match Level.

The standard errors shift slightly across these specifications but the pattern of significance is consistent for any clustering model.

Network Type Node Types	Panel A: Session Fixed Effects						Panel B: No Fixed Effects					
	All Networks leafs & clusters			All Nets leafs	Sin Aggs clusters	Clusters clusters	All Networks leafs & clusters			All Nets leafs	Sin Aggs clusters	Clusters clusters
Constant	0.928*** (0.0186)	0.931*** (0.0187)	0.943*** (0.0257)	0.882*** (0.0327)	0.981*** (0.0302)	0.964*** (0.0257)	0.949*** (0.0200)	0.953*** (0.0198)	0.936*** (0.0202)	0.891*** (0.0346)	1.000*** (0.0294)	0.976*** (0.0255)
<b>Individual Controls</b>												
Gender	0.0155 (0.0115)	0.0155 (0.0115)	0.0188 (0.0115)	0.0474** (0.0207)	-0.0133 (0.0197)	0.00315 (0.0147)	0.0161 (0.0121)	0.0161 (0.0121)	0.0230* (0.0121)	0.0355 (0.0216)	0.00841 (0.0207)	0.00896 (0.0150)
Prob Matching	-0.0603*** (0.0140)	-0.0603*** (0.0140)	-0.0548*** (0.0140)	-0.0919*** (0.0276)	-0.0547** (0.0216)	-0.0193 (0.0196)	-0.0674*** (0.0147)	-0.0650*** (0.0145)	-0.0570*** (0.0149)	-0.0929*** (0.0294)	-0.0470** (0.0221)	-0.0251 (0.0204)
Risk Aversion	0.0502** (0.0240)	0.0506** (0.0241)	0.0469** (0.0238)	0.0514 (0.0413)	0.0711 (0.0437)	0.0212 (0.0303)	0.0120 (0.0234)	0.0140 (0.0232)	0.0141 (0.0227)	0.0674* (0.0377)	-0.0491 (0.0406)	-0.00960 (0.0301)
Incorrect R1 Guess	-0.105*** (0.0188)	-0.105*** (0.0188)	-0.106*** (0.0189)	-0.129*** (0.0312)	-0.0453 (0.0314)	-0.133*** (0.0333)	-0.127*** (0.0197)	-0.122*** (0.0195)	-0.122*** (0.0192)	-0.148*** (0.0315)	-0.0684** (0.0325)	-0.145*** (0.0338)
<b>Influencer R2 Status</b>												
Disagree with Infl	-0.591*** (0.0194)	-0.588*** (0.0223)	-0.511*** (0.0296)	-0.478*** (0.0310)	-0.730*** (0.0371)	-0.824*** (0.0311)	-0.602*** (0.0199)	-0.591*** (0.0231)	-0.520*** (0.0303)	-0.484*** (0.0318)	-0.740*** (0.0376)	-0.834*** (0.0312)
Infl Switch R1 to R2	-0.000420 (0.0104)	-0.00696 (0.0110)	-0.0483** (0.0188)	-0.0265 (0.0208)	-0.0487** (0.0194)	0.00900 (0.0141)	0.00777 (0.00894)	-0.00139 (0.00984)	-0.0222 (0.0178)	-0.0153 (0.0205)	-0.00892 (0.0174)	-0.00635 (0.0125)
Disagree with Infl × Infl Switch	0.0819*** (0.0308)	0.0675** (0.0326)	0.160*** (0.0458)	0.111** (0.0493)	0.166*** (0.0558)	-0.0840* (0.0473)	0.102*** (0.0324)	0.0810** (0.0342)	0.168*** (0.0478)	0.119** (0.0507)	0.190*** (0.0594)	-0.0586 (0.0467)
<b>Minority Status</b>												
In R2 Minority		-0.0402* (0.0237)	-0.0440* (0.0234)		-0.0764*** (0.0286)	-0.0663 (0.0406)		-0.0685*** (0.0220)	-0.0797*** (0.0219)		-0.0870*** (0.0284)	-0.0737* (0.0376)
In R2 Minority × Disagree w/Infl		0.0196 (0.0362)	0.106*** (0.0361)		0.141*** (0.0497)	0.271*** (0.0636)		0.0103 (0.0365)	0.112*** (0.0362)		0.141*** (0.0505)	0.276*** (0.0622)
In R2 Minority × Infl Switch		0.0718* (0.0411)	0.122*** (0.0398)		0.117** (0.0522)	0.0639 (0.0772)		0.105** (0.0412)	0.153*** (0.0394)		0.121* (0.0515)	0.0519 (0.0780)
<b>Network Features</b>												
Ratio			-0.0465 (0.0491)						0.0164 (0.0124)			
Ratio × Infl Switch			0.0731** (0.0289)						0.0353 (0.0273)			
Ratio × Disagree w/Infl			-0.317*** (0.0519)						-0.308*** (0.0517)			
Ratio × Infl Switch			-0.314*** (0.0902)						-0.323*** (0.0925)			
Ratio × Disagree w/Infl												
R-squared	0.432	0.433	0.451	0.322	0.500	0.623	0.438	0.440	0.460	0.325	0.508	0.638
# of Observations	4,521	4,521	4,521	1,933	1,292	1,296	4,521	4,521	4,521	1,933	1,292	1,296
# of Clusters	721	721	721	360	244	237	721	721	721	360	244	237
Network Type Node Types	Panel C: Session & Participant Fixed Effects						Panel D: Match & Participant Fixed Effects					
	All Networks leafs & clusters			All Nets leafs	Sin Aggs clusters	Clusters clusters	All Networks leafs & clusters			All Nets leafs	Sin Aggs clusters	Clusters clusters
Constant	0.955*** (0.00622)	0.958*** (0.00640)	0.968*** (0.0193)	0.946*** (0.0104)	0.978*** (0.0112)	0.969*** (0.00919)	0.935*** (0.00799)	0.933*** (0.00843)	0.937*** (0.0215)	0.925*** (0.0123)	0.952*** (0.0133)	0.963*** (0.0113)
<b>Individual Controls</b>												
Incorrect R1 Guess	-0.0503** (0.0251)	-0.0504** (0.0249)	-0.0493* (0.0253)	-0.0432 (0.0446)	0.0171 (0.0424)	-0.128*** (0.0343)	-0.0472* (0.0250)	-0.0461* (0.0248)	-0.0472* (0.0251)	-0.0328 (0.0458)	0.0109 (0.0426)	-0.118*** (0.0362)
<b>Influencer R2 Status</b>												
Disagree with Infl	-0.574*** (0.0204)	-0.578*** (0.0231)	-0.489*** (0.0309)	-0.452*** (0.0326)	-0.741*** (0.0388)	-0.825*** (0.0331)	-0.546*** (0.0218)	-0.526*** (0.0253)	-0.477*** (0.0319)	-0.446*** (0.0335)	-0.687*** (0.0468)	-0.800*** (0.0431)
Infl Switch R1 to R2	0.0150 (0.0117)	0.00662 (0.0124)	-0.0303 (0.0210)	-0.00111 (0.0248)	-0.0614*** (0.0227)	0.0261 (0.0161)	0.0451* (0.0246)	0.0429* (0.0245)	0.0801* (0.0481)	0.101** (0.0466)	0.0257 (0.0253)	
Disagree with Infl × Infl Switch	0.0480 (0.0311)	0.0290 (0.0327)	0.117** (0.0456)	0.0686 (0.0499)	0.135** (0.0593)	-0.122** (0.0474)	0.0925*** (0.0334)	0.0770** (0.0348)	0.139*** (0.0486)	0.0636 (0.0537)	0.169*** (0.0648)	-0.142** (0.0610)
<b>Minority Status</b>												
In R2 Minority		-0.0453* (0.0261)	-0.0485* (0.0257)		-0.0820*** (0.0292)	-0.0460 (0.0460)		0.00475 (0.0296)	-0.0222 (0.0293)		-0.0707** (0.0327)	-0.0258 (0.0555)
In R2 Minority × Disagree w/Infl		0.0454 (0.0380)	0.136*** (0.0377)		0.179*** (0.0506)	0.291*** (0.0684)		-0.0624 (0.0409)	0.0488 (0.0420)		0.112** (0.0557)	0.258*** (0.0830)
In R2 Minority × Infl Switch		0.0899** (0.0410)	0.141*** (0.0392)		0.163*** (0.0516)	0.0443 (0.0795)		0.0784* (0.0455)	0.169*** (0.0448)		0.151** (0.0583)	0.0774 (0.0810)
<b>Network Features</b>												
Ratio			-0.0263 (0.0522)						-0.0146 (0.0547)			
Ratio × Infl Switch			0.0597* (0.0321)						-0.0425 (0.0608)			
Ratio × Disagree w/Infl			-0.354*** (0.0557)						-0.264*** (0.0635)			
Ratio × Infl Switch			-0.316*** (0.0869)						-0.330*** (0.104)			
Ratio × Disagree w/Infl												
R-squared	0.578	0.579	0.597	0.534	0.627	0.719	0.621	0.622	0.631	0.571	0.666	0.744
# of Observations	4,504	4,504	4,504	1,922	1,274	1,283	4,504	4,504	4,504	1,922	1,274	1,283
# of Clusters	704	704	704	349	226	224	704	704	704	349	226	224

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 17: Determinants of Round 3 Imitation of Influential Neighbor with Different Fixed Effects Models

**Notes:** These results expand upon the findings in 7 with various fixed effects treatments. All regressions are linear, with standard errors clustered at the participant level. Regressions (1)-(3) use a pooled sample of all non-aggregators in the *Single Aggregator* networks, leafs in the Symmetric Core-Periphery network, and non-connectors in the Two Cores networks. Regression (4) includes leafs in the Star, One Gatekeeper, and Symmetric Core-Periphery networks. Regression (5) includes cluster members in the Connected Spokes and One Gatekeeper networks. Regression (6) includes non-connectors in the Two Cores networks. *Disagree with influencer* is an indicator for whether the subject's round 2 guess differs from their influencer's round 2 guess. *Influencer switch* indicates whether the influencer changed their guess between rounds 1 and 2. *In R2 minority* indicates whether the subject's round 2 guess was not the local majority in their neighborhood. *Ratio* is defined as the number of the subject's direct neighbors divided by the number of the influencer's direct neighbors. Individual controls include the risk attitude measure, the probability matching indicator, the indicator of sub-optimal first round guess, and gender.

	Panel A: Logit Estimation						Panel B: Probit Estimation					
Network Type	All Networks			All Nets	Sin Aggs	Clusters	All Networks			All Nets	Sin Aggs	Clusters
Node Types	leafs & clusters			leafs	clusters	clusters	leafs & clusters			leafs	clusters	clusters
Constant	2.782*** (0.361)	2.814*** (0.370)	3.994*** (0.691)	2.715*** (0.523)	4.109*** (0.530)	3.722*** (0.650)	1.526*** (0.192)	1.542*** (0.195)	2.044*** (0.362)	1.461*** (0.284)	2.237*** (0.278)	1.933*** (0.324)
<b>Individual Controls</b>												
Gender	0.199 (0.127)	0.215* (0.127)	0.240* (0.132)	0.463** (0.202)	-0.0966 (0.241)	0.174 (0.245)	0.110 (0.0689)	0.113 (0.0694)	0.129* (0.0713)	0.252** (0.112)	-0.0604 (0.128)	0.103 (0.126)
Prob Matching	-0.615*** (0.144)	-0.613*** (0.143)	-0.586*** (0.147)	-0.765*** (0.220)	-0.630** (0.258)	-0.212 (0.296)	-0.346*** (0.0751)	-0.346*** (0.0753)	-0.322*** (0.0764)	-0.428*** (0.120)	-0.352*** (0.129)	-0.179 (0.142)
Risk Aversion	0.513** (0.256)	0.520** (0.257)	0.501* (0.265)	0.496 (0.396)	0.845 (0.532)	0.299 (0.451)	0.303** (0.139)	0.308** (0.140)	0.297** (0.143)	0.312 (0.221)	0.453* (0.273)	0.184 (0.237)
Incorrect R1 Guess	-0.909*** (0.170)	-0.911*** (0.168)	-0.931*** (0.169)	-0.967*** (0.224)	-0.400 (0.306)	-1.526*** (0.368)	-0.479*** (0.0867)	-0.475*** (0.0861)	-0.498*** (0.0869)	-0.520*** (0.120)	-0.199 (0.159)	-0.788*** (0.174)
<b>Influencer R2 Status</b>												
Disagree with Infl	-3.949*** (0.164)	-4.124*** (0.201)	-3.592*** (0.260)	-3.367*** (0.244)	-5.117*** (0.363)	-5.687*** (0.403)	-2.184*** (0.0805)	-2.239*** (0.0966)	-1.957*** (0.123)	-1.847*** (0.119)	-2.836*** (0.176)	-3.123*** (0.194)
Infl Switch R1 to R2	0.182 (0.282)	0.107 (0.286)	-0.571 (0.425)	-0.436 (0.382)	0.246 (0.658)	0.258 (0.522)	0.0734 (0.127)	0.0328 (0.128)	-0.274 (0.190)	-0.199 (0.183)	0.0162 (0.264)	0.149 (0.225)
Disagree with Infl × Infl Switch	-1.87e-05 (0.317)	-0.0826 (0.324)	0.846* (0.477)	0.709 (0.444)	-0.551 (0.756)	-1.346* (0.807)	0.0465 (0.153)	-0.00550 (0.160)	0.449** (0.226)	0.369* (0.223)	-0.106 (0.363)	-0.655* (0.388)
<b>Minority Status</b>												
In R2 Minority		-0.756*** (0.275)	-0.750*** (0.279)		-1.475*** (0.423)	-1.193** (0.510)		-0.377*** (0.140)	-0.378*** (0.141)		-0.727*** (0.197)	-0.553** (0.255)
In R2 Minority × Disagree w/Infl		0.919*** (0.329)	1.219*** (0.321)		1.835*** (0.485)	2.604*** (0.632)		0.388** (0.172)	0.614*** (0.170)		0.939*** (0.242)	1.345*** (0.333)
In R2 Minority × Influencer Switch		0.501* (0.286)	0.962*** (0.363)		1.083* (0.560)	0.966 (0.769)		0.301* (0.172)	0.537** (0.209)		0.561* (0.323)	0.455 (0.410)
<b>Network Features</b>												
Ratio			-0.534 (0.649)						-0.222 (0.319)			
Ratio × Infl Switch			1.510 (1.036)						0.682 (0.426)			
Ratio × Disagree w/Infl			-1.880*** (0.524)						-1.083*** (0.250)			
Ratio × Infl Switch × Disagree w/Infl			-2.937** (1.193)						-1.481*** (0.537)			
# of Observations	4,521	4,521	4,521	1,933	1,292	1,296	4,521	4,521	4,521	1,933	1,292	1,296
# of Clusters	721	721	721	360	244	237	721	721	721	360	244	237

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 18: Determinants of Round 3 Imitation of Influential Neighbor with Logit and Probit Models

Notes: These results expand upon the findings in 7 with various limited dependent variable models. Here we present Maximum Likelihood Estimates using Logit (Panel A) and Probit (Panel B) Models, with standard errors clustered at the participant level. Regressions (1)-(3) use a pooled sample of all non-aggregators in the *Single Aggregator* networks, leafs in the Symmetric Core-Periphery network, and non-connectors in the Two Cores networks. Regression (4) includes leafs in the Star, One Gatekeeper, and Symmetric Core-Periphery networks. Regression (5) includes cluster members in the Connected Spokes and One Gatekeeper networks. Regression (6) includes non-connectors in the Two Cores networks. *Disagree with influencer* is an indicator for whether the subject's round 2 guess differs from their influencer's round 2 guess. *Influencer switch* indicates whether the influencer changed their guess between rounds 1 and 2. *In R2 minority* indicates whether the subject's round 2 guess was not the local majority in their neighborhood. *Ratio* is defined as the number of the subject's direct neighbors divided by the number of the influencer's direct neighbors. Individual controls include the risk attitude measure, the probability matching indicator, the indicator of sub-optimal first round guess, and gender.

	Panel A: Session-Level Cluster						Panel B: Match-Level Cluster					
Network Type	All Networks			All Nets	Sin Aggs	Clusters	All Networks			All Nets	Sin Aggs	Clusters
Node Types	leafs & clusters			leafs	clusters	clusters	leafs & clusters			leafs	clusters	clusters
Constant	0.928*** (0.0215)	0.931*** (0.0219)	0.943*** (0.0252)	0.882*** (0.0373)	0.981*** (0.0224)	0.964*** (0.0143)	0.928*** (0.0175)	0.931*** (0.0176)	0.943*** (0.0223)	0.882*** (0.0282)	0.981*** (0.0300)	0.964*** (0.0260)
Individual Controls												
Gender	0.0155 (0.0123)	0.0155 (0.0121)	0.0188 (0.0119)	0.0474* (0.0232)	-0.0133 (0.0118)	0.00315 (0.00974)	0.0155 (0.00994)	0.0155 (0.00989)	0.0188* (0.00969)	0.0474*** (0.0177)	-0.0133 (0.0155)	0.00315 (0.0139)
Prob Matching	-0.0603*** (0.0155)	-0.0603*** (0.0154)	-0.0548*** (0.0153)	-0.0919*** (0.0295)	-0.0547** (0.0226)	-0.0193 (0.0191)	-0.0603*** (0.0130)	-0.0603*** (0.0130)	-0.0548*** (0.0131)	-0.0919*** (0.0228)	-0.0547** (0.0245)	-0.0193 (0.0214)
Risk Aversion	0.0502*** (0.0169)	0.0506*** (0.0169)	0.0469** (0.0173)	0.0514 (0.0329)	0.0711** (0.0257)	0.0212 (0.0192)	0.0502*** (0.0175)	0.0506*** (0.0175)	0.0469*** (0.0173)	0.0514* (0.0292)	0.0711* (0.0392)	0.0212 (0.0264)
Incorrect R1 Guess	-0.105*** (0.0171)	-0.105*** (0.0167)	-0.106*** (0.0162)	-0.129*** (0.0253)	-0.0453 (0.0330)	-0.133*** (0.0226)	-0.105*** (0.0190)	-0.105*** (0.0187)	-0.106*** (0.0192)	-0.129*** (0.0342)	-0.0453 (0.0316)	-0.133*** (0.0303)
Influencer R2 Status												
Disagree with Infl	-0.591*** (0.0324)	-0.588*** (0.0376)	-0.511*** (0.0454)	-0.478*** (0.0435)	-0.730*** (0.0344)	-0.824*** (0.0389)	-0.591*** (0.0181)	-0.588*** (0.0210)	-0.511*** (0.0253)	-0.478*** (0.0251)	-0.730*** (0.0319)	-0.824*** (0.0320)
Infl Switch R1 to R2	-0.000420 (0.0169)	-0.00696 (0.0167)	-0.0483* (0.0246)	-0.0265 (0.0267)	-0.0487 (0.0326)	0.00900 (0.0118)	-0.000420 (0.0126)	-0.00696 (0.0132)	-0.0483** (0.0202)	-0.0265 (0.0220)	-0.0487* (0.0282)	0.00900 (0.0128)
Disagree with Infl × Infl Switch	0.0819 (0.0491)	0.0675 (0.0523)	0.160*** (0.0620)	0.111 (0.0673)	0.166* (0.0864)	-0.0840 (0.0468)	0.0819** (0.0391)	0.0675* (0.0408)	0.160*** (0.0532)	0.111** (0.0555)	0.166** (0.0684)	-0.0840* (0.0485)
Minority Status												
In R2 Minority		-0.0402 (0.0286)	-0.0440 (0.0285)		-0.0764** (0.0292)	-0.0663 (0.0456)		-0.0402 (0.0254)	-0.0440* (0.0252)		-0.0764** (0.0313)	-0.0663 (0.0414)
In R2 Minority × Disagree w/Infl		0.0196 (0.0582)	0.106* (0.0588)		0.141*** (0.0454)	0.271** (0.109)		0.0196 (0.0374)	0.106** (0.0359)		0.141*** (0.0434)	0.271*** (0.0689)
In R2 Minority × Influencer Switch		0.0718* (0.0417)	0.122*** (0.0374)		0.117** (0.0505)	0.0639 (0.0721)		0.0718* (0.0390)	0.122*** (0.0353)		0.117** (0.0532)	0.0639 (0.0690)
Netwok Features												
Ratio			-0.0465 (0.0384)						-0.0465 (0.0436)			
Ratio times Infl Switch			0.0731** (0.0339)						0.0731** (0.0287)			
Ratio × Disagree w/Infl			-0.317*** (0.0778)						-0.317*** (0.0490)			
Ratio × Infl Switch × Disagree w/Infl			-0.314*** (0.105)						-0.314*** (0.0961)			
R-squared	0.461	0.462	0.479	0.345	0.531	0.645	0.461	0.462	0.479	0.345	0.531	0.645
# of Observations	4,521	4,521	4,521	1,933	1,292	1,296	4,521	4,521	4,521	1,933	1,292	1,296
	Panel C: Two-Way Clustering - Participant x Session						Panel D: Two-Way Clustering - Participant x Match					
Network Type	All Networks			All Nets	Sin Aggs	Clusters	All Networks			All Nets	Sin Aggs	Clusters
Node Types	leafs & clusters			leafs	clusters	clusters	leafs & clusters			leafs	clusters	clusters
Constant	0.928*** (0.0215)	0.931*** (0.0219)	0.943*** (0.0258)	0.882*** (0.0373)	0.981*** (0.0224)	0.964*** (0.0143)	0.928*** (0.0200)	0.931*** (0.0201)	0.943*** (0.0247)	0.882*** (0.0349)	0.981*** (0.0300)	0.964*** (0.0263)
Individual Controls												
Gender	0.0155 (0.0123)	0.0155 (0.0121)	0.0188 (0.0116)	0.0474* (0.0232)	-0.0133 (0.0118)	0.00315 (0.00974)	0.0155 (0.0118)	0.0155 (0.0117)	0.0188 (0.0117)	0.0474** (0.0217)	-0.0133 (0.0181)	0.00315 (0.0146)
Probability Matching	-0.0603*** (0.0155)	-0.0603*** (0.0154)	-0.0548*** (0.0140)	-0.0919*** (0.0295)	-0.0547** (0.0226)	-0.0193 (0.0191)	-0.0603*** (0.0137)	-0.0603*** (0.0137)	-0.0548*** (0.0139)	-0.0919*** (0.0260)	-0.0547** (0.0231)	-0.0193 (0.0200)
Risk Aversion	0.0502*** (0.0169)	0.0506*** (0.0169)	0.0469* (0.0239)	0.0514 (0.0329)	0.0711** (0.0257)	0.0212 (0.0192)	0.0502** (0.0225)	0.0506** (0.0225)	0.0469** (0.0225)	0.0514 (0.0408)	0.0711* (0.0408)	0.0212 (0.0288)
Incorrect R1 Guess	-0.105*** (0.0171)	-0.105*** (0.0167)	-0.106*** (0.0190)	-0.129*** (0.0253)	-0.0453 (0.0330)	-0.133*** (0.0226)	-0.105*** (0.0184)	-0.105*** (0.0181)	-0.106*** (0.0187)	-0.129*** (0.0315)	-0.0453 (0.0311)	-0.133*** (0.0300)
Influencer R2 Status												
Disagree with Infl	-0.591*** (0.0324)	-0.588*** (0.0376)	-0.511*** (0.0297)	-0.478*** (0.0435)	-0.730*** (0.0344)	-0.824*** (0.0389)	-0.591*** (0.0216)	-0.588*** (0.0253)	-0.511*** (0.0320)	-0.478*** (0.0327)	-0.730*** (0.0339)	-0.824*** (0.0312)
Infl Switch R1 to R2	-0.000420 (0.0169)	-0.00696 (0.0167)	-0.0483** (0.0189)	-0.0265 (0.0267)	-0.0487 (0.0326)	0.00900 (0.0118)	-0.000420 (0.0132)	-0.00696 (0.0137)	-0.0483** (0.0214)	-0.0265 (0.0236)	-0.0487* (0.0278)	0.00900 (0.0133)
Disagree with Infl × Infl Switch	0.0819 (0.0491)	0.0675 (0.0523)	0.160*** (0.0460)	0.111 (0.0673)	0.166* (0.0864)	-0.0840 (0.0468)	0.0819** (0.0403)	0.0675 (0.0426)	0.160*** (0.0556)	0.111* (0.0579)	0.166** (0.0720)	-0.0840* (0.0451)
Minority Status												
In R2 Minority		-0.0402 (0.0286)	-0.0440* (0.0235)		-0.0764** (0.0292)	-0.0663 (0.0456)		-0.0402 (0.0261)	-0.0440* (0.0258)		-0.0764** (0.0322)	-0.0663 (0.0409)
In R2 Minority × Disagree with Infl		0.0196 (0.0582)	0.106*** (0.0362)		0.141*** (0.0454)	0.271** (0.109)		0.0196 (0.0409)	0.106*** (0.0390)		0.141*** (0.0455)	0.271*** (0.0722)
In R2 Minority × Infl Switch		0.0718* (0.0417)	0.122*** (0.0400)		0.117** (0.0505)	0.0639 (0.0721)		0.0718* (0.0418)	0.122*** (0.0387)		0.117** (0.0580)	0.0639 (0.0688)
Netwok Features												
Ratio			-0.0465 (0.0493)						-0.0465 (0.0433)			
Ratio × Infl Switch			0.0731** (0.0290)						0.0731** (0.0298)			
Ratio × Disagree with Infl			-0.317*** (0.0521)						-0.317*** (0.0546)			
Ratio × Infl Switch × Disagree with Infl			-0.314*** (0.0905)						-0.314*** (0.0962)			
R-squared	0.461	0.462	0.479	0.345	0.531	0.645	0.461	0.462	0.479	0.345	0.531	0.645
# of Observations	4,521	4,521	4,521	1,933	1,292	1,296	4,521	4,521	4,521	1,933	1,292	1,296

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 19: Determinants of Round 3 Imitation of Influential Neighbor with Alternative Clustering

**Notes:** These results expand upon the findings in 7 with various clustering strategies for standard errors. All regressions are linear with session-game fixed effects. Regressions (1)-(3) use a pooled sample of all non-aggregators in the *Single Aggregator* networks, leaves in the Symmetric Core-Periphery network, and non-connectors in the Two Cores networks. Regression (4) includes leaves in the Star, One Gatekeeper, and Symmetric Core-Periphery networks. Regression (5) includes cluster members in the Connected Spokes and One Gatekeeper networks. Regression (6) includes non-connectors in the Two Cores networks. *Disagree with influencer* is an indicator for whether the subject's round 2 guess differs from their influencer's round 2 guess. *Influencer switch* indicates whether the influencer changed their guess between rounds 1 and 2. *In R2 minority* indicates whether the subject's round 2 guess was not the local majority in their neighborhood. *Ratio* is defined as the number of the subject's direct neighbors divided by the number of the influencer's direct neighbors. Individual controls include the risk attitude measure, the probability matching indicator, the indicator of sub-optimal first round guess, and gender.

Panel A: # of Match-Participant Switches in a Game					
	zero	$\leq 1$	$\leq 2$	$\leq 5$	# obs
Complete network R3+	89%	92%	95%	97%	684
All Single Aggregators R3+	84%	87%	95%	97%	159
All leafs R4+	81%	90%	94%	98%	1,933
Core members in Core Periphery R3+					
not 5-4 Majority	89%	93%	95%	98%	360
5-4 Majority	77%	91%	96%	98%	162
All connectors R3+					
agree in R2	93%	95%	99%	100%	170
disagree in R2	69%	80%	86%	94%	148
Other cluster members R4+	84%	89%	94%	97%	2,900

Panel B: Participant # of Matches with Switching in R4+					
Network Name	zero	$\leq 1$	$\leq 2$	$\leq 5$	# obs
Complete Network	60%	83%	97%	100%	684
Star Network	31%	58%	72%	93%	1,008
One Gatekeeper	30%	70%	87%	94%	918
Connected Spokes	35%	63%	77%	97%	936
Symmetric Core Periphery	34%	74%	89%	98%	1,044
Equal Core with One Link	52%	77%	89%	98%	990
Equal Core with Three Links	49%	73%	83%	94%	936
Total	41%	71%	84%	96%	6,516

Table 20: Frequencies of at most  $X$  switches per game in  $RY+$

Notes: Panel A reports the frequency of observing Match-Participants switching late in the game for various sub-groups of the data. Panel B reports the frequency of a Participant's total number of switches across all games in a session, broken down by network.

#### D.4 Switching Behavior from Round 4 onward

Table 20 documents the frequency of switching guesses starting from the fourth round. At the match-participant level, late switches are infrequent, manifesting in fewer than 20% of observations for most network specifications. Across all matches, participants often do demonstrate limited switching behavior, though only 16% of participants register more than two games in which they switched from round 4 onward.

## D.5 Final Choices

**Regression Model Specifications: Fixed Effects** Table 8 includes fixed effects at the session-game level. We consider four different models of fixed effects in the regression model:

- Panel A reports results with Session-level Fixed Effects,
- Panel B reports results with No Fixed Effects,
- Panel C reports results with Session-Participant Fixed Effects, and,
- Panel D reports results with Match-Participant Fixed Effects.

As reported in Table 21, the results significance patterns line up with those presented in Table 8. Not all models with Match-Participant fixed effects are well defined as the fixed effects absorb a lot of important variation in the outcomes. For example, the fixed effects alone perfectly explain all of the observations for the model with Single Aggregators.

**Regression Model Specifications: Logit and Probit Specifications** Table 8 presents linear probability model regressions. For robustness, we present results for the logit and probit regression models in Table 22. As expected there is no real difference in the significance of effects.

**Regression Model Specifications: Clustering Specifications** As a last robustness check, we consider different specifications for clustering the standard errors in the regression model. The results are presented in 23. Table 8 presents results while clustering at the participant level. We also consider the following strategies for clustering standard errors:

- Panel A reports results with clustering at the Session Level,
- Panel B reports results with clustering at the Match Level,
- Panel C reports results with two-way clustering at the Participant and Session Level, and,
- Panel D reports results with two-way clustering at the Participant and Match Level.

The standard errors shift slightly across these specifications but the pattern of significance is consistent for any clustering model.



	Panel A: Session Fixed Effects (Baseline)						Panel B: No Fixed Effects					
	Reg (1)	Reg (2)	Reg (3)	Reg (4A) Leafs Only	Reg (4B) All Others	Reg (5) Clusters	Reg (1)	Reg (2)	Reg (3)	Reg (4A) Leafs Only	Reg (4B) All Others	Reg (5) Clusters
	Complete	Sin Aggs	Connectors	Core Per	All Others	w/Sin Aggs	Complete	Sin Aggs	Connectors	Core Per	All Others	w/Sin Aggs
Constant	1.082*** (0.0399)	1.008*** (0.0854)	1.142*** (0.0807)	0.912*** (0.0557)	0.826*** (0.0320)	0.998*** (0.0257)	1.088*** (0.0442)	1.029*** (0.0737)	1.062*** (0.0758)	0.909*** (0.0576)	0.831*** (0.0347)	1.030*** (0.0271)
<b>Individual Controls</b>												
Prob Match	-0.00365 (0.0199)	0.00142 (0.0542)	-0.0885** (0.0431)	0.0335 (0.0588)	0.0244 (0.0307)	0.0200 (0.0165)	0.00287 (0.0209)	-0.0240 (0.0576)	-0.102*** (0.0361)	0.0378 (0.0572)	0.0221 (0.0324)	0.00563 (0.0188)
Gender	-0.0169 (0.0142)	0.0246 (0.0324)	-0.0337 (0.0349)	-0.0273 (0.0391)	0.0237 (0.0182)	-0.0153 (0.0127)	-0.0278 (0.0173)	-0.00784 (0.0263)	-0.0333 (0.0334)	-0.0368 (0.0400)	0.0200 (0.0223)	-0.0115 (0.0140)
Risk Aversion	0.0247 (0.0265)	-0.142* (0.0827)	0.0162 (0.0682)	0.0443 (0.0642)	0.00465 (0.0403)	0.0369 (0.0294)	0.0476* (0.0261)	-0.0464 (0.0518)	0.0537 (0.0572)	0.0537 (0.0651)	0.0164 (0.0374)	-0.0192 (0.0272)
<b>Initial Behavior</b>												
Wrong R1 Guess	-0.0160 (0.0402)	-0.111 (0.0879)	-0.0422 (0.0575)	-0.173*** (0.0646)	-0.0952** (0.0407)	-0.0847*** (0.0315)	-0.0317 (0.0398)	-0.0993 (0.0984)	-0.0789 (0.0644)	-0.170*** (0.0621)	-0.0975** (0.0412)	-0.0893*** (0.0340)
Wrong R2 Guess	-0.931*** (0.0284)	-0.917*** (0.0607)	-0.573*** (0.0967)	-0.0335 (0.145)	-0.0215 (0.0898)	-0.312*** (0.0260)	-0.916*** (0.0250)	-0.930*** (0.0594)	-0.563*** (0.101)	-0.0155 (0.144)	-0.0431 (0.0898)	-0.312*** (0.0265)
Wrong R3 Guess				-0.399*** (0.0780)	-0.527*** (0.0384)	-0.331*** (0.0288)				-0.391*** (0.0786)	-0.534*** (0.0358)	-0.355*** (0.0276)
<b>Late Switching</b>												
Switched Late	-0.0958* (0.0518)	-0.294*** (0.0976)	0.0254 (0.0752)	-0.126** (0.0638)	-0.0887*** (0.0337)	-0.110*** (0.0301)	-0.0982* (0.0569)	-0.252** (0.105)	0.0107 (0.0876)	-0.124* (0.0650)	-0.0973*** (0.0349)	-0.111*** (0.0320)
Wrong Late	0.816*** (0.0896)	0.862*** (0.182)	0.390** (0.154)	0.354*** (0.132)	0.475*** (0.0633)	0.294*** (0.0509)	0.818*** (0.0927)	0.834*** (0.207)	0.371** (0.159)	0.350*** (0.133)	0.472*** (0.0653)	0.317*** (0.0514)
<b>Local Network</b>												
R1 Local Min Size	-0.340*** (0.0918)	0.118 (0.182)	-0.0962 (0.135)			-0.218*** (0.0483)	-0.353*** (0.0966)	0.0364 (0.171)	-0.153 (0.147)			-0.240*** (0.0480)
Connectors Disagree										0.0514 (0.0752)		
Connectors Disagree × R1 Local Min Size										-0.643** (0.301)		
Connectors Disagree × Switched in R3+										0.0650 (0.105)		
<b>Influencer Switching</b>												
Infl Switched in R3+				-0.105*** (0.0376)	-0.0159 (0.0313)	-0.0216 (0.0183)				-0.0913*** (0.0347)	-0.0216 (0.0320)	0.0112 (0.0153)
<b>Network Structure</b>												
Tribunal			-0.0833** (0.0405)						0.0205 (0.0316)			
Small Cluster						-0.0457* (0.0242)						-0.0763*** (0.0203)
R-squared	0.578	0.722	0.353	0.107	0.182	0.255	0.576	0.723	0.303	0.104	0.186	0.273
# of Observations	684	159	318	522	1,411	2,900	684	159	318	522	1,411	2,900
# of Clusters	106	128	165	119	241	484	106	128	165	119	241	484

	Panel C: Session x Participant Fixed Effects						Panel D: Match x Participant Fixed Effects					
	Reg (1)	Reg (2)	Reg (3)	Reg (4A) Leafs Only	Reg (4B) All Others	Reg (5) Clusters	Reg (1)	Reg (2)	Reg (3)	Reg (4A) Leafs Only	Reg (4B) All Others	Reg (5) Clusters
	Complete	Sin Aggs	Connectors	Core Per	All Others	w/Sin Aggs	Complete	Sin Aggs	Connectors	Core Per	All Others	w/Sin Aggs
Constant	1.066*** (0.0291)	1.023*** (0.0933)	1.037*** (0.0653)	0.912*** (0.0270)	0.873*** (0.00892)	0.993*** (0.0169)	0.785*** (0.142)		1.029*** (0.103)	0.827*** (0.0138)	0.868*** (0.00969)	0.977*** (0.0185)
<b>Initial Behavior</b>												
Wrong R1 Guess	-0.00230 (0.0513)	-0.187 (0.134)	0.0457 (0.0798)	-0.252*** (0.0890)	-0.113** (0.0484)	-0.0844** (0.0389)	0.0278 (0.0497)		-0.0724 (0.0840)	-0.207** (0.0883)	-0.138*** (0.0409)	-0.0775** (0.0361)
Wrong R2 Guess	-0.875*** (0.0358)	-0.702*** (0.218)	-0.752*** (0.120)	-0.0360 (0.136)	-0.0834 (0.0939)	-0.308*** (0.0273)	-0.839*** (0.0666)		-0.595*** (0.161)	-0.0478 (0.0754)	-0.152* (0.0831)	-0.310*** (0.0272)
Wrong R3 Guess				-0.399*** (0.0868)	-0.570*** (0.0401)	-0.315*** (0.0300)				-0.250*** (0.108)	-0.513*** (0.0517)	-0.309*** (0.0355)
<b>Late Switching</b>												
Switched Late	-0.0855* (0.0497)	-0.0323 (0.102)	0.00412 (0.0539)	-0.146* (0.0769)	-0.0933** (0.0420)	-0.120*** (0.0353)	-0.0562 (0.0637)		-0.0723 (0.0972)	-0.0925 (0.0722)	-0.146*** (0.0448)	-0.0909*** (0.0344)
Wrong Late	0.744*** (0.0959)	0.890*** (0.217)	0.502*** (0.190)	0.335** (0.148)	0.509*** (0.0706)	0.277*** (0.0547)	0.733*** (0.102)		0.274 (0.236)	0.151 (0.143)	0.547*** (0.0810)	0.304*** (0.0583)
<b>Local Network</b>												
R1 Local Min Size	-0.351*** (0.0929)	-0.132 (0.244)	0.00709 (0.178)			-0.202*** (0.0534)	0.490 (0.432)		-0.149 (0.296)			-0.196*** (0.0559)
Connectors Disagree												
Connectors Disagree × R1 Local Min Size										-0.309 (0.975)		
Connectors Disagree × Switched in R3+										0.287* (0.151)		
<b>Influencer Switching</b>												
Infl Switched in R3+				-0.105** (0.0405)	-0.0122 (0.0327)	-0.0172 (0.0188)						
<b>Network Structure</b>												
Tribunal			-0.0271 (0.0498)						-0.0196 (0.0582)			
Small Cluster						-0.0481* (0.0272)						-0.0460** (0.0232)
R-squared	0.650	0.917	0.633	0.288	0.327	0.406	0.765	xx	0.792	0.533	0.570	0.561
# of Observations	684	61	239	518	1,404	2,881	684	xx	194	518	1,404	2,881
# of Clusters	106	30	86	115	234	465	106	xx	66	115	234	465

Table 21: Determinants of Last Round Correct Guesses with Different Fixed Effects

**Notes:** These results expand upon the findings in 8 with various fixed effects treatments. All regressions are linear, with standard errors clustered at the participant level. Regression (1) uses data from the Complete network; (2) from aggregators in *Single Aggregator* networks; (3) from connectors in *Two Cores* networks; (4a) from leafs in the *Symmetric Core-Periphery* network; (4b) from leafs in the *Star* and *One Gatekeeper* networks; and (5) from non-connectors in *Two Cores* networks, non-aggregator cluster members in the *One Gatekeeper* network, and non-aggregators in the *Connected Spokes* network. The dependent variable, *Last Correct Guess*, equals 1 if the participant guessed correctly in the final round. *Wrong Rx Guess* equals 1 if the participant guessed according to the myopic Bayesian model in round  $x$ . *Switched in Ry+* equals 1 if the participant switched at any round  $t \geq y$  relative to round  $y - 1$ . *Switched Late* equals 1 if the participant switched in R3+ or R4+ depending on the participant's position. *Wrong Late* equals 1 if the participant was wrong in R2 or R3 depending on the participant's position. *R1 Local Minority Size* is the fraction of minority guesses in the participant's local neighborhood in round 1. *Core Connectors Disagree* equals 1 whenever there is no unanimity amongst the connectors in round 2 in the *Two Cores* networks. *Influencer Switched in R3+* equals 1 if the influencer switched at any round  $t \geq 3$  compared to round 2. *Tribunal* indicates whether the participant is one of the three connectors in the *Two Cores* with *Three Links* network. *Small Cluster* indicates assignment to a small cluster in the *Connected Spokes* network. Individual controls include risk attitude, probability matching, and gender. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



	Panel A: Session Level Clustering						Panel B: Match Level Clustering					
	Reg (1)	Reg (2)	Reg (3)	Reg (4A)	Reg (4B)	Reg (5)	Reg (1)	Reg (2)	Reg (3)	Reg (4A)	Reg (4B)	Reg (5)
	Complete	Sin Aggs	Connectors	Leafs Only	Core Per All Others	w/Sin Aggs	Complete	Sin Aggs	Connectors	Leafs Only	Core Per All Others	w/Sin Aggs
Constant	1.082*** (0.0925)	1.008*** (0.0903)	1.142*** (0.0858)	0.912*** (0.0842)	0.826*** (0.0478)	0.998*** (0.0391)	1.082*** (0.0552)	1.008*** (0.0897)	1.142*** (0.0872)	0.912*** (0.0665)	0.826*** (0.0541)	0.998*** (0.0331)
<b>Individual Controls</b>												
Prob Match	-0.00365 (0.0152)	0.00142 (0.0667)	-0.0885* (0.0416)	0.0335 (0.0887)	0.0244 (0.0329)	0.0200 (0.0166)	-0.00365 (0.0155)	0.00142 (0.0578)	-0.0885* (0.0471)	0.0335 (0.0492)	0.0244 (0.0310)	0.0200 (0.0174)
Gender	-0.0169 (0.0290)	0.0246 (0.0331)	-0.0337 (0.0283)	-0.0273 (0.0441)	0.0237 (0.0248)	-0.0153 (0.0137)	-0.0169 (0.0168)	0.0246 (0.0352)	-0.0337 (0.0307)	-0.0273 (0.0311)	0.0237 (0.0220)	-0.0153 (0.0120)
Risk Aversion	0.0247 (0.0328)	-0.142* (0.0801)	0.0162 (0.0921)	0.0443 (0.0779)	0.00465 (0.0328)	0.0369 (0.0286)	0.0247 (0.0296)	-0.142 (0.0892)	0.0162 (0.0762)	0.0443 (0.0676)	0.00465 (0.0317)	0.0369 (0.0270)
<b>Initial Behavior</b>												
Wrong R1 Guess	-0.0160 (0.0255)	-0.111 (0.102)	-0.0422** (0.0182)	-0.173* (0.0727)	-0.0952** (0.0369)	-0.0847** (0.0319)	-0.0160 (0.0433)	-0.111 (0.0942)	-0.0422 (0.0549)	-0.173* (0.0892)	-0.0952** (0.0474)	-0.0847*** (0.0279)
Wrong R2 Guess	-0.931*** (0.0566)	-0.917*** (0.0721)	-0.573*** (0.0798)	-0.0335 (0.110)	-0.0215 (0.0825)	-0.312*** (0.0368)	-0.931*** (0.0594)	-0.917*** (0.0633)	-0.573*** (0.113)	-0.0335 (0.135)	-0.0215 (0.0856)	-0.312*** (0.0384)
Wrong R3 Guess				-0.399*** (0.0536)	-0.527*** (0.0965)	-0.331*** (0.0871)				-0.399*** (0.0895)	-0.527*** (0.102)	-0.331*** (0.0702)
<b>Late Switching</b>												
Switched Late	-0.0958 (0.0500)	-0.294** (0.113)	0.0254 (0.0603)	-0.126* (0.0561)	-0.0887* (0.0438)	-0.110*** (0.0390)	-0.0958* (0.0498)	-0.294*** (0.103)	0.0254 (0.0805)	-0.126** (0.0609)	-0.0887 (0.0638)	-0.110*** (0.0380)
Wrong Late	0.816*** (0.150)	0.862*** (0.224)	0.390** (0.154)	0.354*** (0.137)	0.475*** (0.120)	0.294** (0.106)	0.816*** (0.145)	0.862*** (0.195)	0.390*** (0.147)	0.354*** (0.139)	0.475*** (0.142)	0.294*** (0.0881)
<b>Local Network</b>												
R1 Local Min Size	-0.340 (0.197)	0.118 (0.212)	-0.0962 (0.151)			-0.218** (0.0908)	-0.340* (0.173)	0.118 (0.195)	-0.0962 (0.149)			-0.218*** (0.0794)
Connectors Disagree			0.00992 (0.0736)						0.00992 (0.0815)			
Connectors Disagree × R1 Local Min Size			-0.699** (0.310)						-0.699** (0.313)			
Connectors Disagree × Switched in R3+			0.00933 (0.0792)						0.00933 (0.102)			
<b>Influencer Switching</b>												
Infl Switched in R3+				-0.105 (0.0607)	-0.0159 (0.0513)	-0.0216 (0.0310)				-0.105* (0.0557)	-0.0159 (0.0681)	-0.0216 (0.0302)
<b>Network Structure</b>												
Tribunal			-0.0833** (0.0310)						-0.0833* (0.0451)			
Small Cluster						-0.0457** (0.0180)						-0.0457 (0.0304)
R-squared	0.590	0.760	0.379	0.111	0.222	0.301	0.590	0.760	0.379	0.111	0.222	0.301
# of Observations	684	159	318	522	1,411	2,900	684	159	318	522	1,411	2,900
# of Clusters	5	18	12	6	12	24	38	159	107	58	107	210
	Panel C: Two Way Session x Participant Clustering						Panel D: Two Way Match x Participant Clustering					
	Complete	Sin Aggs	Connectors	Leafs Only	Core Per All Others	Clusters	Complete	Sin Aggs	Connectors	Leafs Only	Core Per All Others	Clusters
	Complete	Sin Aggs	Connectors	Leafs Only	Core Per All Others	w/Sin Aggs	Complete	Sin Aggs	Connectors	Leafs Only	Core Per All Others	w/Sin Aggs
Constant	1.082*** (0.0528)	1.008*** (0.0907)	1.142*** (0.0868)	0.912*** (0.0575)	0.826*** (0.0510)	0.998*** (0.0326)	1.082*** (0.0925)	1.008*** (0.0903)	1.142*** (0.0858)	0.912*** (0.0842)	0.826*** (0.0478)	0.998*** (0.0391)
<b>Individual Controls</b>												
Prob Match	-0.00365 (0.0165)	0.00142 (0.0576)	-0.0885** (0.0434)	0.0335 (0.0579)	0.0244 (0.0303)	0.0200 (0.0169)	-0.00365 (0.0152)	0.00142 (0.0667)	-0.0885* (0.0416)	0.0335 (0.0887)	0.0244 (0.0329)	0.0200 (0.0166)
Gender	-0.0169 (0.0104)	0.0246 (0.0344)	-0.0337 (0.0287)	-0.0273 (0.0305)	0.0237 (0.0175)	-0.0153 (0.0113)	-0.0169 (0.0290)	0.0246 (0.0331)	-0.0337 (0.0283)	-0.0273 (0.0441)	0.0237 (0.0248)	-0.0153 (0.0137)
Risk Aversion	0.0247 (0.0269)	-0.142 (0.0878)	0.0162 (0.0743)	0.0443 (0.0665)	0.00465 (0.0271)	0.0369 (0.0281)	0.0247 (0.0328)	-0.142* (0.0801)	0.0162 (0.0921)	0.0443 (0.0779)	0.00465 (0.0328)	0.0369 (0.0286)
<b>Initial Behavior</b>												
Wrong R1 Guess	-0.0160 (0.0366)	-0.111 (0.0934)	-0.0422 (0.0504)	-0.173*** (0.0601)	-0.0952** (0.0456)	-0.0847*** (0.0307)	-0.0160 (0.0255)	-0.111 (0.102)	-0.0422** (0.0182)	-0.173* (0.0727)	-0.0952** (0.0369)	-0.0847** (0.0319)
Wrong R2 Guess	-0.931*** (0.0594)	-0.917*** (0.0645)	-0.573*** (0.109)	-0.0335 (0.129)	-0.0215 (0.0912)	-0.312*** (0.0394)	-0.931*** (0.0566)	-0.917*** (0.0721)	-0.573*** (0.0798)	-0.0335 (0.110)	-0.0215 (0.0825)	-0.312*** (0.0368)
Wrong R3 Guess				-0.399*** (0.0865)	-0.527*** (0.101)	-0.331*** (0.0713)				-0.399*** (0.0536)	-0.527*** (0.0965)	-0.331*** (0.0871)
<b>Late Switching</b>												
Switched Late	-0.126** (0.0553)	-0.0887 (0.0598)	-0.110*** (0.0379)	-0.126** (0.0553)	-0.0887 (0.0598)	-0.110*** (0.0379)	-0.126* (0.0561)	-0.0887* (0.0438)	-0.110*** (0.0390)	-0.126* (0.0561)	-0.0887* (0.0438)	-0.110*** (0.0390)
Wrong Late	0.354** (0.137)	0.475*** (0.141)	0.294*** (0.0894)	0.354** (0.137)	0.475*** (0.141)	0.294*** (0.0894)	0.354** (0.137)	0.475*** (0.120)	0.294*** (0.106)	0.354** (0.137)	0.475*** (0.120)	0.294** (0.106)
<b>Local Network</b>												
R1 Local Min Size	-0.340* (0.175)	0.118 (0.193)	-0.0962 (0.146)			-0.218*** (0.0813)	-0.340 (0.197)	0.118 (0.212)	-0.0962 (0.151)			-0.218** (0.0908)
Connectors Disagree			0.00992 (0.0820)						0.00992 (0.0736)			
Connectors Disagree × R1 Local Min Size			-0.699** (0.315)						-0.699** (0.310)			
Connectors Disagree × Switched in R3+			0.00933 (0.0955)						0.00933 (0.0792)			
<b>Influencer Switching</b>												
Infl Switched in R3+				-0.105* (0.0555)	-0.0159 (0.0665)	-0.0216 (0.0296)				-0.105 (0.0607)	-0.0159 (0.0513)	-0.0216 (0.0310)
<b>Network Structure</b>												
Tribunal			-0.0833* (0.0455)						-0.0833** (0.0310)			
Small Cluster						-0.0457 (0.0295)						-0.0457** (0.0180)
R-squared	0.590	0.760	0.379	0.111	0.222	0.301	0.590	0.760	0.379	0.111	0.222	0.301
# of Observations	684	159	318	522	1,411	2,900	684	159	318	522	1,411	2,900
# of Clusters	38	128	107	58	107	210	5	18	12	6	12	24

Table 23: Determinants of Last Round Correct Guesses with Different Clustering Specifications

Notes: These results expand upon the findings in 8 with various strategies for clustering standard errors. All regressions are linear with session-level fixed effects. Regression (1) uses data from the Complete network; (2) from aggregators in *Single Aggregator* networks; (3) from connectors in *Two Cores* networks; (4a) from leafs in the Symmetric Core-Periphery network; (4b) from leafs in the Star and One Gatekeeper networks; and (5) from non-connectors in *Two Cores* networks, non-aggregator cluster members in the One Gatekeeper network, and non-aggregators in the Connected Spokes network. The dependent variable, *Last Correct Guess*, equals 1 if the participant guessed correctly in the final round. *Wrong Rx Guess* equals 1 if the participant guessed according to the myopic Bayesian model in round  $x$ . *Switched in Ry+* equals 1 if the participant switched at any round  $t \geq y$  relative to round  $y - 1$ . *Switched Late* equals 1 if the participant switched in R3+ or R4+ depending on the participant's position. *Wrong Late* equals 1 if the participant was wrong in R2 or R3 depending on the participant's position. *R1 Local Minority Size* is the fraction of minority guesses in the participant's local neighborhood in round 1. *Core Connectors Disagree* equals 1 whenever there is no unanimity amongst the connectors in round 2 in the *Two Cores* networks. *Influencer Switched in R3+* equals 1 if the influencer switched at any round  $t \geq 3$  compared to round 2. *Tribunal* indicates whether the participant is one of the three connectors in the *Two Cores* with Three Links network. *Small Cluster* indicates assignment to a small cluster in the Connected Spokes network. Individual controls include risk attitude, probability matching, and gender. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Panel A: Regression Estimates										
	Panel A.1: Logit Specification					Panel A.2: Probit Specification				
	Reg (1) Non- Aggregators	Reg (2) Leafs Only	Reg (3) Non-Aggregator All	Reg (4) Cluster R2 Maj	Reg (5) Roles R2 Min	Reg (1) Non- Aggregators	Reg (2) Leafs Only	Reg (3) Non-Aggregator All	Reg (4) Cluster R2 Maj	Reg (5) Roles R2 Min
Constant	3.205*** (0.310)	3.489*** (0.452)	3.064*** (0.468)	3.155*** (0.597)	1.850** (0.738)	1.778*** (0.159)	1.896*** (0.228)	1.694*** (0.241)	1.615*** (0.278)	1.103*** (0.426)
<b>Individual Controls</b>										
Gender	0.158 (0.183)	0.146 (0.220)	0.0778 (0.280)	-0.0269 (0.410)	0.497 (0.429)	0.0762 (0.0996)	0.0670 (0.123)	0.0608 (0.146)	0.0296 (0.196)	0.234 (0.238)
Prob Matching	-0.443** (0.187)	-0.569*** (0.220)	-0.238 (0.302)	0.0145 (0.452)	-0.658 (0.410)	-0.250** (0.103)	-0.325*** (0.124)	-0.125 (0.157)	0.0703 (0.214)	-0.345 (0.240)
Risk Aversion	-0.552 (0.370)	-0.478 (0.435)	-0.652 (0.585)	0.528 (0.776)	-2.345** (1.004)	-0.289 (0.193)	-0.239 (0.239)	-0.355 (0.293)	0.217 (0.369)	-1.207** (0.546)
Incorrect R1 Guess	-0.892*** (0.247)	-1.109*** (0.350)	-0.624 (0.430)	0.0385 (0.800)	-0.886* (0.457)	-0.502*** (0.134)	-0.626*** (0.197)	-0.368* (0.223)	-0.0154 (0.392)	-0.529* (0.275)
<b>Aggregator Info</b>										
Disagree with Aggr	-3.777*** (0.267)	-3.665*** (0.367)	-4.053*** (0.349)	-4.346*** (0.506)	-2.761*** (0.602)	-2.132*** (0.141)	-2.012*** (0.189)	-2.331*** (0.178)	-2.368*** (0.253)	-1.606*** (0.335)
Aggr Switch R1 - R2	0.00947 (0.336)	-0.608 (0.429)	0.890 (0.580)	0.426 (0.671)	0.977 (0.635)	0.0845 (0.175)	-0.243 (0.224)	0.573* (0.302)	3.619*** (0.173)	0.605* (0.368)
Disagree with Aggr × Aggr Switch	0.935*** (0.353)	1.031*** (0.398)	0.802 (0.651)	-0.166 (0.950)	0.748 (0.652)	0.506*** (0.186)	0.530** (0.215)	0.460 (0.344)	0.330 (0.605)	0.405 (0.374)
<b>Scripted Treatment</b>										
Scripted Flag	0.414 (0.305)	-0.243 (0.413)	1.271** (0.563)	0.564 (0.640)	1.350* (0.770)	0.232 (0.150)	-0.0704 (0.200)	0.625** (0.284)	0.469 (0.412)	0.729* (0.437)
Scripted Flag × Disagree w/Aggr	0.340 (0.366)	0.937** (0.457)	-0.501 (0.638)	-0.989 (0.910)	0.557 (0.697)	0.231 (0.199)	0.504** (0.246)	-0.168 (0.342)	-0.707 (0.571)	0.346 (0.412)
Scripted Flag × Aggr Switch	-0.615** (0.304)	-0.186 (0.405)	-1.348*** (0.517)	-1.344** (0.670)	-0.392** (0.173)	-0.153 (0.229)	-0.831*** (0.284)	-3.791*** (0.469)	-0.808** (0.398)	
Panel B: Scripted and Disagreement Contrast										
	Panel B.1: Logit Specification					Panel B.2: Probit Specification				
	Reg (1) Non- Aggregators	Reg (2) Leafs Only	Reg (3) Non-Aggregator All	Reg (4) Cluster R2 Maj	Reg (5) Roles R2 Min	Reg (1) Non- Aggregators	Reg (2) Leafs Only	Reg (3) Non-Aggregator All	Reg (4) Cluster R2 Maj	Reg (5) Roles R2 Min
Scripted Flag + Scripted Flag × Disagree with Aggr	0.0786*** (0.0293)	0.0787** (0.0401)	0.0653* (0.0341)	-0.0167 (0.0225)	0.474*** (0.139)	0.0989*** (0.0352)	0.0988** (0.0479)	0.0848** (0.0411)	-0.0174 (0.0242)	0.426*** (0.123)
Observations	1,887	999	888	688	200	1,887	999	888	688	200

Table 24: Imitation in the Third Round: One Gatekeeper vs. One Gatekeeper Scripted - Alternative Limited Dependent Models

Notes: Expands on the results from Table 9 with alternative Limited Dependent Variable Models. All regressions are estimated via Maximum Likelihood, with standard errors clustered at the participant level and no fixed effects included. The sample includes 51 standard One Gatekeeper games that converged and were not tied, and all 60 One Gatekeeper Scripted games. The dependent variable, *Correct Third Round Guess*, equals 1 if the participant's third-round guess matched the aggregator's second-round guess. *Disagree with Aggregator* equals 1 if the participant's second-round guess differed from the aggregator's second-round guess. *Aggregator Switch R1 to R2* equals 1 if the aggregator changed their guess between rounds 1 and 2. *Scripted Flag* equals 1 for games played in a Scripted session. Individual controls include the risk attitude measure, the probability matching indicator, the indicator of sub-optimal first round guess, and gender. Panel B uses the results exhibited in Panel A to calculate the marginal difference at the means between rates of imitation for participants in the Scripted session who disagree with the aggregator in round 2 and participants in the unscripted session who disagree with the aggregator in round 2.\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## E One Gatekeeper Scripted

### E.1 Round 3 Imitation: Table 9 Robustness

**Regression Model Specifications: Logit and Probit Specifications** Table 9 presents linear probability model regressions. For robustness, we present results for the logit and probit regression models in Table 24. Due to a lack of separation in the specification for Non-Aggregator Clusters in the R2 Majority (Regression 4), the interaction between Scripted Flag and Disagree with Aggregator in R2 had to be dropped from the Logit model. Beyond this shift, there is no real difference in the significance of effects.

	Panel A: Logit Model			Panel B: Probit Model		
	Single Aggregators	Leafs Only	Clusters Only	Single Aggregators	Leafs Only	Clusters Only
Constant	-0.109 (3.169)	2.185*** (0.315)	0.874 (0.760)	-0.0544 (1.380)	1.337*** (0.175)	0.675* (0.409)
<b>Individual Controls</b>						
Gender	-0.391 (0.657)	0.182 (0.198)	0.213 (0.270)	-0.198 (0.362)	0.0988 (0.109)	0.0851 (0.140)
Probability Matching	-0.236 (0.792)	-0.602*** (0.223)	-0.184 (0.304)	-0.116 (0.376)	-0.331*** (0.126)	-0.0806 (0.167)
Risk Aversion	0.270 (1.168)	-0.401 (0.350)	-0.235 (0.395)	0.248 (0.587)	-0.228 (0.194)	-0.101 (0.211)
Wrong R1 Guess	-2.635 (1.815)	-1.055*** (0.372)	-1.572*** (0.424)	-1.459 (0.957)	-0.646*** (0.199)	-0.907*** (0.219)
Switched in R3+	-1.629 (1.064)	-0.0203 (0.243)	0.0557 (0.319)	-1.010** (0.494)	-0.121 (0.119)	-0.0846 (0.158)
<b>Late Switching</b>						
Signal Wrong	-3.517*** (1.055)	-2.057*** (0.314)	-2.060*** (0.352)	-1.981*** (0.528)	-1.196*** (0.176)	-1.190*** (0.189)
Size of R1 Majority	6.821 (4.323)		1.893** (0.897)	3.766** (1.785)		0.985** (0.476)
Aggregator Signal Matches R1 Majority			-0.00258 (0.315)			0.000218 (0.176)
<b>Local Network</b>						
Scripted Flag	-1.386 (1.057)	0.00692 (0.254)	0.446 (0.484)	-0.780 (0.500)	-0.00230 (0.136)	0.194 (0.241)
Scripted Flag × Signal Wrong	3.310** (1.512)	0.826** (0.390)	0.269 (0.503)	1.820*** (0.702)	0.519** (0.226)	0.221 (0.262)
Scripted Flag × Agg Signal Match R1 Maj			0.939** (0.468)			0.488** (0.245)
# of Observations	111	999	888	111	999	888
# of Clusters	88	239	242	88	239	242

Table 25: Final Guess Accuracy: One Gatekeeper vs. One Gatekeeper Scripted - Alternative Limited Dependent Variable Models

Notes: Provides alternative limited dependent variable models for Table 10. All regressions are estimated via Maximum Likelihood, with standard errors clustered at the participant level. The sample includes 51 standard One Gatekeeper games that converged and were not tied, and all 60 One Gatekeeper Scripted games. The dependent variable, *Correct Final Guess*, equals 1 if the participant’s final-round guess was accurate. *Signal Wrong* equals 1 if the participant’s private signal was incorrect. For the aggregator in scripted games we use the signal in the corresponding unscripted game. *Size of R1 Majority* is the fraction of majority guesses in the participant’s local neighborhood in round 1. *Aggregator Signal Matches R1 Majority* equals 1 if the aggregator’s signal matched the local majority in the first round. For scripted games we use the aggregator’s signal in the corresponding unscripted game. *Scripted Flag* equals 1 for games played in a Scripted session. Individual controls include the risk attitude measure, the probability matching indicator, the indicator of sub-optimal first round guess, the indicator of late switching and gender. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## E.2 Final Round Accuracy: Table 10 Robustness

**Regression Model Specifications: Logit and Probit Specifications** Table 10 presents linear probability model regressions. For robustness, we present results for the logit and probit regression models in Table 25.

**Regression Model Specifications: Clustering Specifications** As a last robustness check, we consider different specifications for clustering the standard errors in the regression model. The results are presented in 26. Table 10 presents results while clustering at the participant level. We also consider the following strategies for clustering standard errors:

- Panel A reports results with clustering at the Session Level,

- Panel B reports results with clustering at the Match Level,
- Panel C reports results with two-way clustering at the Participant and Session Level, and,
- Panel D reports results with two-way clustering at the Participant and Match Level.

The standard errors shift slightly across these specifications but the pattern of significance is consistent for any clustering model.

	Panel A: Session Level			Panel B: Match Level		
	Single Aggregators	Leafs Only	Clusters Only	Single Aggregators	Leafs Only	Clusters Only
Constant	0.694*** (0.187)	0.900*** (0.0525)	0.752*** (0.133)	0.694*** (0.229)	0.900*** (0.0452)	0.752*** (0.113)
<b>Individual Controls</b>						
Gender	-0.0474 (0.0335)	0.0236 (0.0253)	0.0211 (0.0258)	-0.0474 (0.0595)	0.0236 (0.0216)	0.0211 (0.0253)
Probability Matching	-0.0268 (0.0477)	-0.0893*** (0.0237)	-0.0160 (0.0369)	-0.0268 (0.0663)	-0.0893** (0.0352)	-0.0160 (0.0313)
Risk Aversion	0.0172 (0.0680)	-0.0522 (0.0423)	-0.0236 (0.0394)	0.0172 (0.0913)	-0.0522 (0.0500)	-0.0236 (0.0523)
Wrong R1 Guess	-0.251 (0.315)	-0.196** (0.0673)	-0.224** (0.0866)	-0.251 (0.311)	-0.196** (0.0838)	-0.224*** (0.0698)
Switched in R3+	-0.189 (0.138)	-0.00105 (0.0427)	0.0105 (0.0581)	-0.189 (0.133)	-0.00105 (0.0432)	0.0105 (0.0558)
<b>Late Switching</b>						
Signal Wrong	-0.346** (0.147)	-0.372*** (0.0448)	-0.352*** (0.0748)	-0.346*** (0.127)	-0.372*** (0.0409)	-0.352*** (0.0525)
Size of R1 Majority	0.522** (0.199)		0.203 (0.176)	0.522 (0.336)		0.203 (0.149)
Aggregator Signal Matches R1 Majority			-0.000320 (0.0442)			-0.000320 (0.0722)
<b>Local Network</b>						
Scripted Flag	-0.0695* (0.0343)	0.00446 (0.0486)	0.0232 (0.0696)	-0.0695 (0.0547)	0.00446 (0.0442)	0.0232 (0.0716)
Scripted Flag × Signal Wrong	0.329* (0.167)	0.176** (0.0611)	0.166* (0.0776)	0.329** (0.151)	0.176*** (0.0571)	0.166** (0.0718)
Scripted Flag × Agg Signal Match R1 Maj			0.0631 (0.0700)			0.0631 (0.0828)
# of Observations	111	999	888	111	999	888
# of Clusters	12	12	12	111	111	111
	Panel C: Two Way Session x Participant			Panel D: Two Way Match x Participant		
	Single Aggregators	Leafs Only	Clusters Only	Single Aggregators	Leafs Only	Clusters Only
Constant	0.694*** (0.187)	0.900*** (0.0525)	0.752*** (0.133)	0.694*** (0.220)	0.900*** (0.0462)	0.752*** (0.119)
<b>Individual Controls</b>						
Gender	-0.0474 (0.0335)	0.0236 (0.0253)	0.0211 (0.0258)	-0.0474 (0.0596)	0.0236 (0.0233)	0.0211 (0.0278)
Probability Matching	-0.0268 (0.0477)	-0.0893*** (0.0237)	-0.0160 (0.0369)	-0.0268 (0.0631)	-0.0893** (0.0373)	-0.0160 (0.0369)
Risk Aversion	0.0172 (0.0680)	-0.0522 (0.0423)	-0.0236 (0.0394)	0.0172 (0.0891)	-0.0522 (0.0513)	-0.0236 (0.0513)
Wrong R1 Guess	-0.251 (0.315)	-0.196** (0.0673)	-0.224** (0.0866)	-0.251 (0.314)	-0.196** (0.0854)	-0.224*** (0.0782)
Switched in R3+	-0.189 (0.138)	-0.00105 (0.0427)	0.0105 (0.0581)	-0.189 (0.140)	-0.00105 (0.0446)	0.0105 (0.0587)
<b>Late Switching</b>						
Signal Wrong	-0.346** (0.147)	-0.372*** (0.0448)	-0.352*** (0.0748)	-0.346*** (0.128)	-0.372*** (0.0528)	-0.352*** (0.0602)
Size of R1 Majority	0.522** (0.199)		0.203 (0.176)	0.522 (0.332)		0.203 (0.148)
Aggregator Signal Matches R1 Majority			-0.000320 (0.0442)			-0.000320 (0.0725)
<b>Local Network</b>						
Scripted Flag	-0.0695* (0.0343)	0.00446 (0.0486)	0.0232 (0.0696)	-0.0695 (0.0531)	0.00446 (0.0449)	0.0232 (0.0751)
Scripted Flag × Signal Wrong	0.329* (0.167)	0.176** (0.0611)	0.166* (0.0776)	0.329** (0.153)	0.176** (0.0675)	0.166** (0.0775)
Scripted Flag × Agg Signal Match R1 Maj			0.0631 (0.0700)			0.0631 (0.0831)
# of Observations	111	999	888	111	999	888
# of Clusters	12	12	12	88	111	111

Table 26: Final Guess Accuracy: One Gatekeeper vs. One Gatekeeper Scripted - Alternative Clustering Strategies

**Notes:** Provides results with alternative clustering models for standard errors from Table 10. All regressions are linear. The sample includes 51 standard One Gatekeeper games that converged and were not tied, and all 60 One Gatekeeper Scripted games. The dependent variable, *Correct Final Guess*, equals 1 if the participant's final-round guess was accurate. *Signal Wrong* equals 1 if the participant's private signal was incorrect. For the aggregator in scripted games we use the signal in the corresponding unscripted game. *Size of R1 Majority* is the fraction of majority guesses in the participant's local neighborhood in round 1. *Aggregator Signal Matches R1 Majority* equals 1 if the aggregator's signal matched the local majority in the first round. For scripted games we use the aggregator's signal in the corresponding unscripted game. *Scripted Flag* equals 1 for games played in a Scripted session. Individual controls include the risk attitude measure, the probability matching indicator, the indicator of sub-optimal first round guess, the indicator of late switching and gender. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .