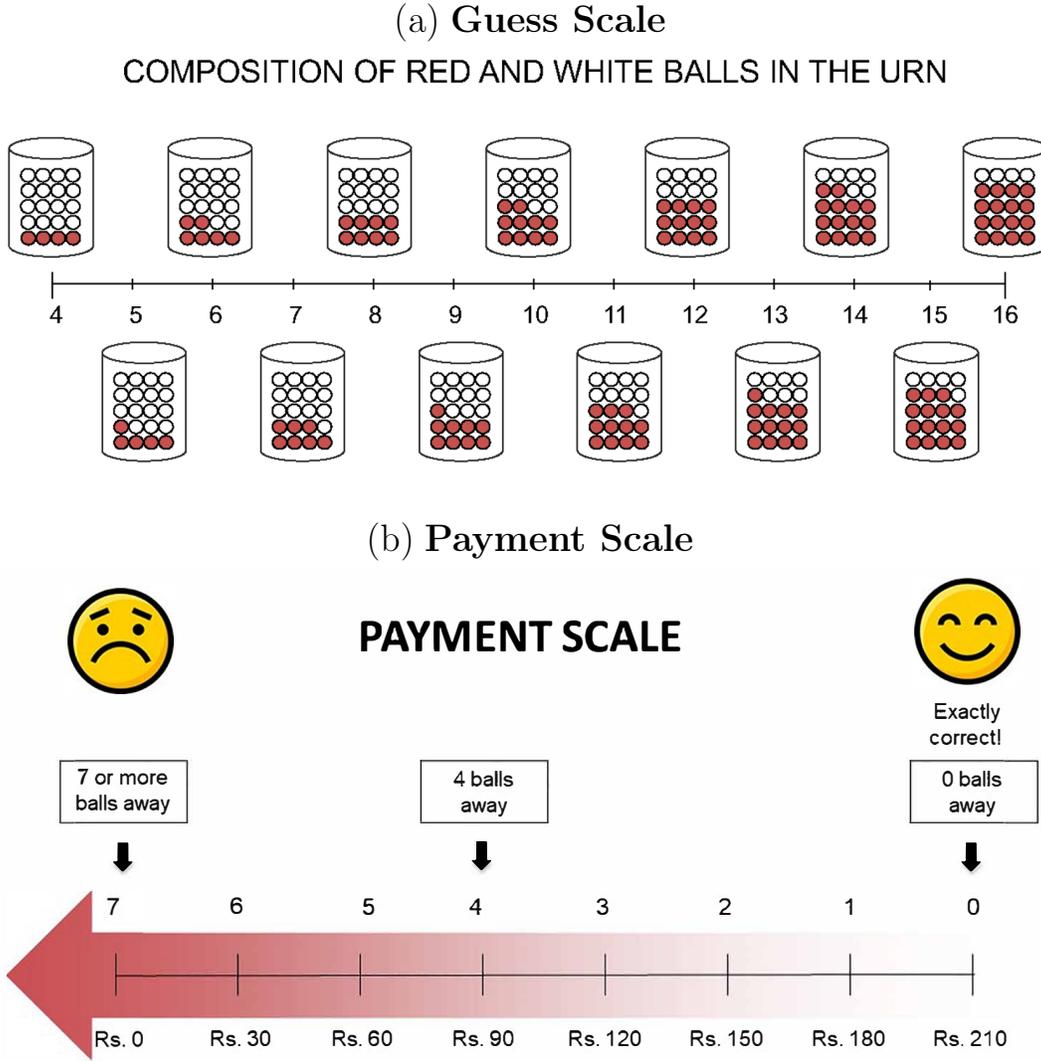


# Not Learning from Others: Online Appendix

## A Supplementary Figures and Tables

### A.1 Supplementary Figures

Figure A.I: Visual Aids



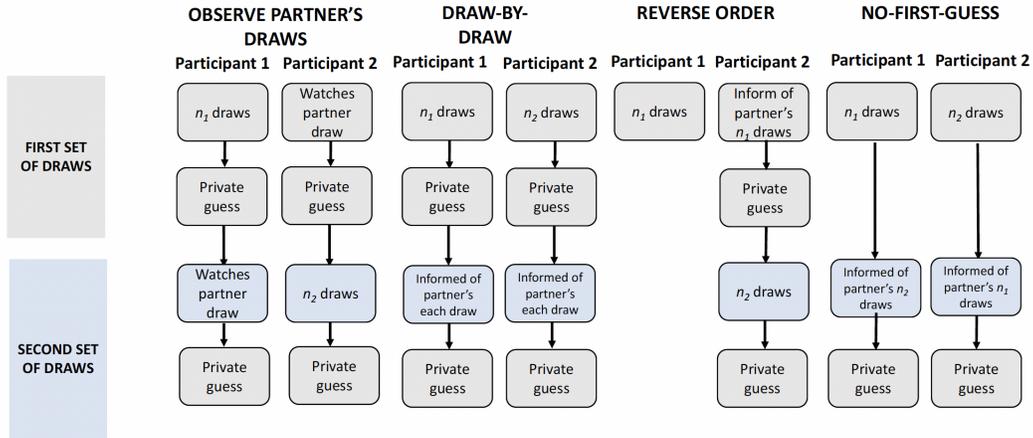
*Notes:* This figure shows the visual aids used to explain the experiment to study participants in Experiment 1 and Experiment 2.

**Panel A:** The figure shows the scale which participants used to make their guesses. It shows the 13 possible urn compositions ranging from 4 to 16 red balls (among 20 balls in total). We induced common priors: participants were informed that in each round, each of these compositions was equally likely (probability  $1/13$  each). Participants guessed by placing a small token on top of the corresponding number.

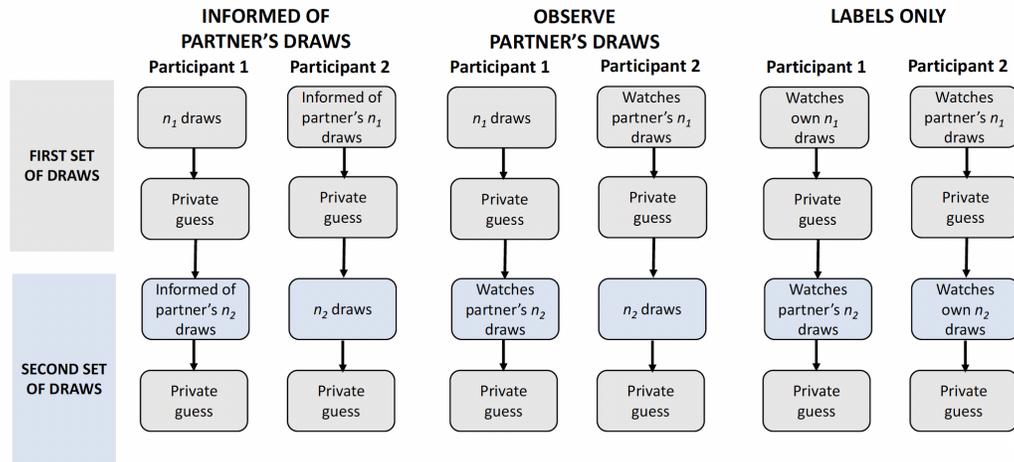
**Panel B:** The figure shows the scale used to explain the incentives for accurate guessing to participants. For each pair of participants, one of their guesses was randomly selected to determine the pair's payment. In Experiments 1 and 2, on top of their participation fee, each individual receives an amount in Rupees (Rs.) equal to  $\max\{(105 - 15 \times |g - r|), 0\}$ , where  $g$  is the guess and  $r$  the true number of red balls for the randomly-selected guess. See more detail in Section 2.

Figure A.II: Experimental Design for Experiment 2 and 3

**Panel A: Experiment 2**



**Panel B: Experiment 3**

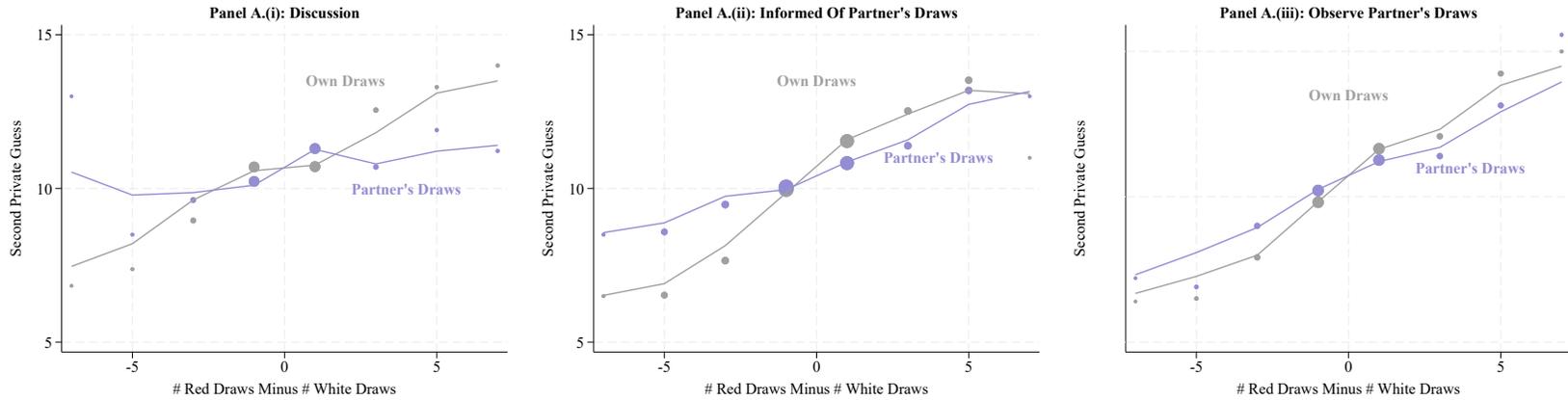


**Panel A** describes the structure of the different rounds in Experiment 2. In addition to the *Discussion* and *Informed of Partner's Draws* rounds, participants played four variations of the *Informed of Partner's Draws* round. In the *Observe Partner's Draws* round, each participant makes one set of draws while their partner is present, followed by a private guess after each set of draws. The *Draw-by-Draw* round is the same as the *Informed of Partner's Draws* round except each participant is informed about their partner's draws one draw at a time. In the *Reverse-Order* round, one participant learns about their partner's draws first and makes a private guess, and then makes their own set of draws and makes another private guess. In this round, the treatment is only for one participant from the pair. The *No-First-Guess* round is the same as the *Informed of Partner's Draws* round except participants only make one private guess after both sets of draws.

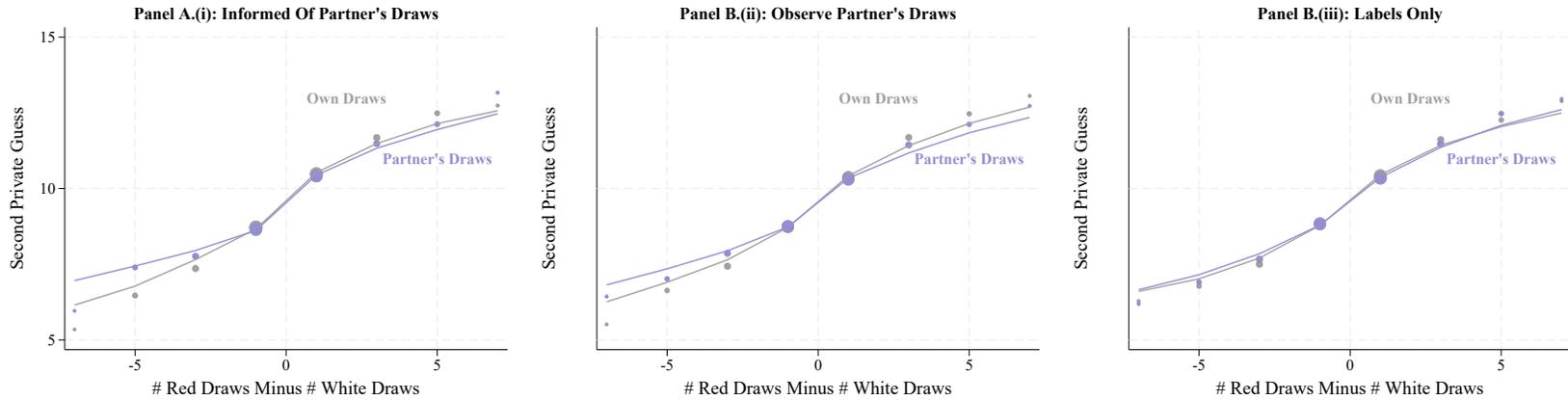
**Panel B** describes the structure of the different rounds in Experiment 3. In this experiment, the participant's own information and partner's information was presented in the Qualtrics survey using a virtual urn. In the *Informed of Partner's Draws* round, each participant makes one set of draws followed by a private guess. They are informed of their partner's draws and asked to make another private guess. In this experiment, participants played two additional variations of the *Informed of Partner's Draws* round. The *Observe Partner's Draws* round is the same as the *Informed of Partner's Draws*, except each participant watches their partner's draws, followed by a private guess after each set of draws. The *Labels Only* round is identical to the *Informed of Partner's Draws* round, except participants watch both their own draws and their partner's draws, and make a private guess after each set of draws.

Figure A.III: Experiments 2 and 3: Non-Parametric Estimates

Panel A: Experiment 2

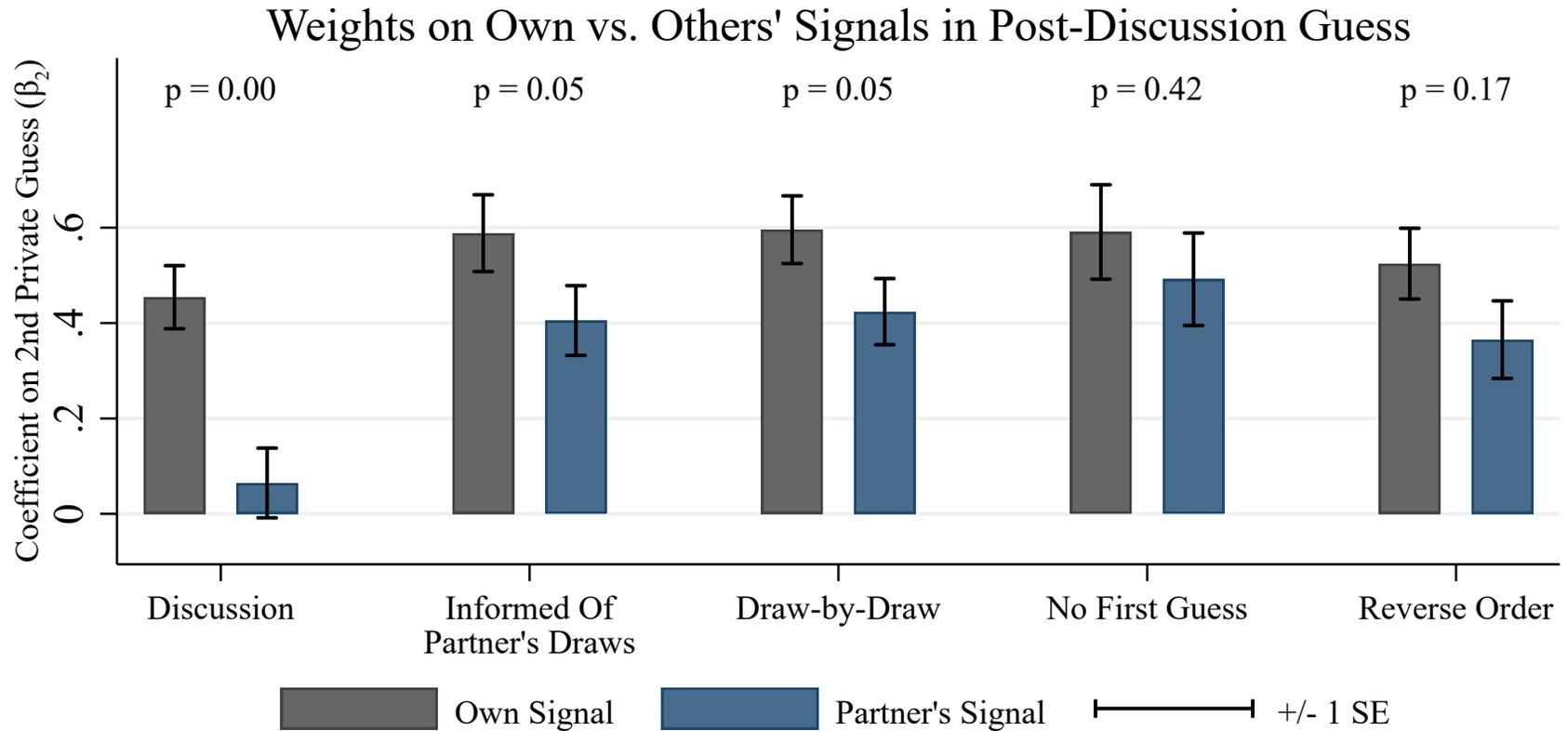


Panel B: Experiment 3



Notes: This figure shows the average second private guesses of participants in Experiment 2 and 3. In each graph, we plot this first against the participant's own signal (unconditional on partner's signal) in gray, and then again against their partner's signal (unconditional on own signal), in blue. The x-axis shows the net number of red draws (i.e. red draws minus white draws) in a given signal. Dots indicate average guesses, with dot size indicating number of observations, while the solid curves show locally weighted means (lowess). Because the signals are symmetrically distributed, equal weighting of own and others' information would imply the two curves should be equally steep. **Panel A** shows the average second private guess in Experiment 2. We show this for A.(i) *Informed of Partner's Draws*, where participants receive the second set of draws directly from the experimenter (and the second guess is before any discussion with their partner); and A.(ii) *Observe Partner's Draws*, where participants watch their partner drawing from the urn. **Panel B** shows the average second guess of participants in Experiment 3. We show results for: B.(i) *Informed of Partner's Draws*, where participants are given a summary of their partner's draws; B.(ii) *Observe Partner's Draws*, where participants watch their partner's draws appear from the urn; and B.(iii) *Labels Only*, where participants passively watch their own as well as their partner's draws appear from the urn.

Figure A.IV: Experiment 2: Reduced-Form Estimates



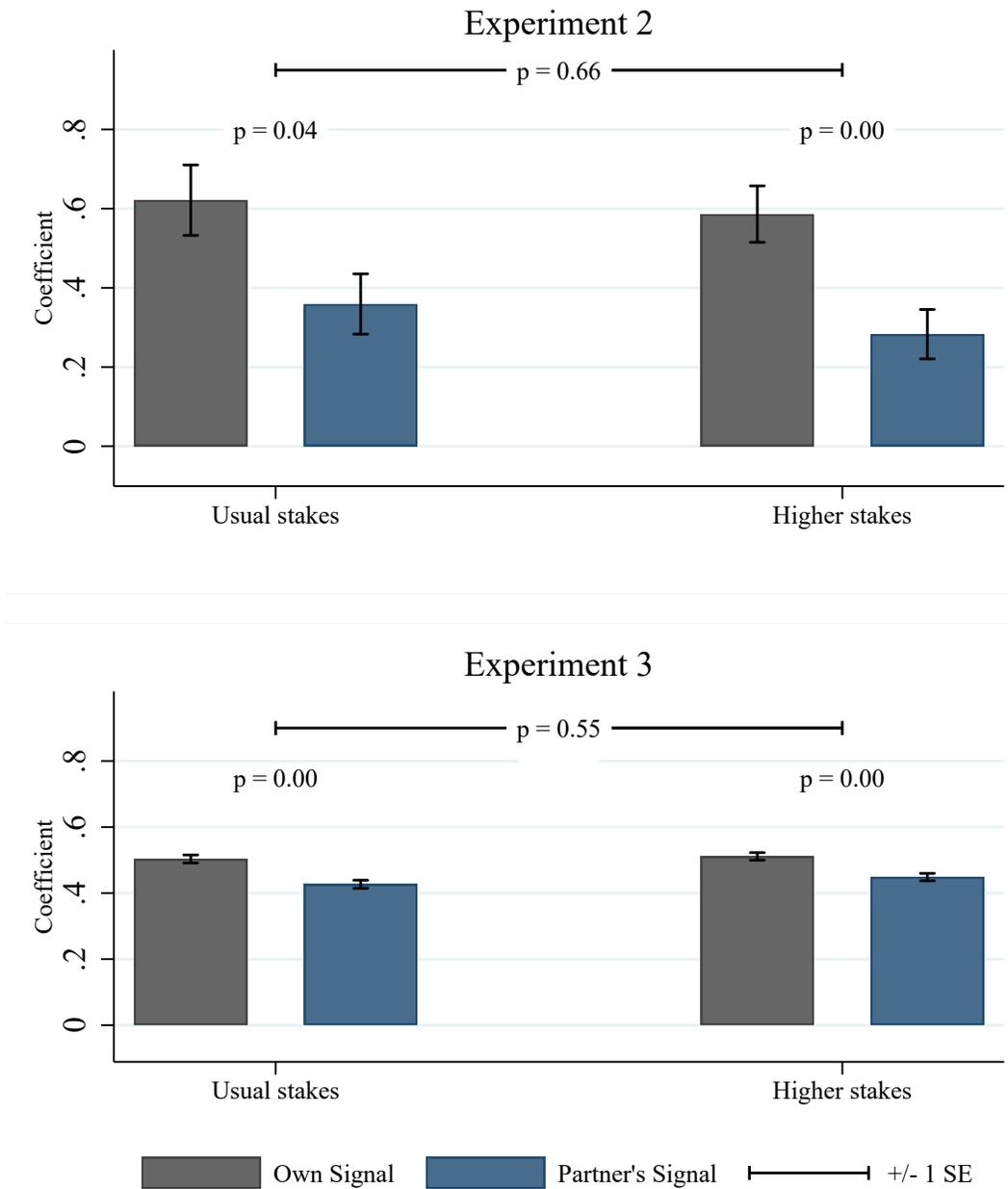
47

*Notes:* This figure shows the weights participants put on different signals when making their post-discussion private guess in Experiment 2. We estimate equation (1) and then display  $\beta_1$  in gray and  $\beta_2$  in dark blue for each treatment, except the *Observe Partner's Draws* round (in which there was no discussion and thus no post-discussion guess). In addition to the *Discussion* and *Informed of Partner's Draws* rounds, we look at the following treatments:

- (a) *Draw-by-Draw*, in which participants receive the second set of signals directly one draw at a time;
- (b) *No First Guess*, in which participants receive their partner's signals (and their own) before making their first and only private guess;
- (c) *Reverse Order*, in which one participant receives their partner's signals first and makes their first private guess, and then receives their own signals and makes their second private guess.

For each round, we show the  $p$ -value of testing whether the weight on their signal ( $\beta_1$ ) equals the corresponding weight on their partner's signal ( $\beta_2$ ) in that round.

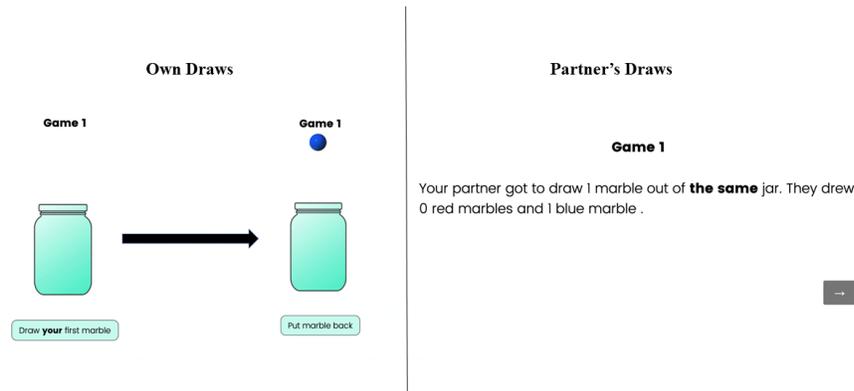
Figure A.V: Weights on Own vs. Others' Signals under Usual vs. Higher Stakes



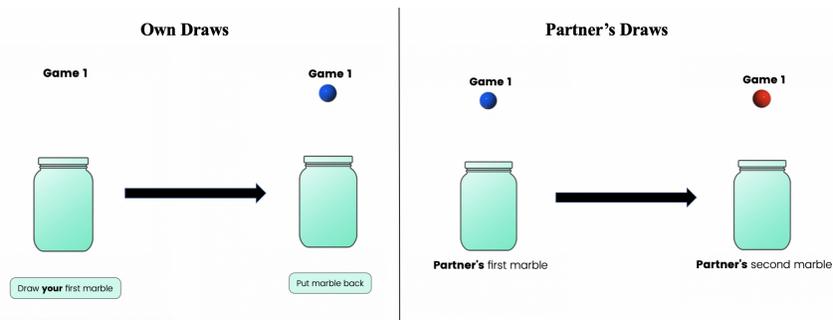
*Notes:* This figure shows OLS estimates of equation 1 in Experiments 2 and 3, pooling the different treatments, separately by whether participants faced lower or higher stakes (incentives). Above each pair of bars, we show the  $p$ -value of testing whether the weight on own information (gray) equals the weight on partner's information (dark blue). The higher, centered  $p$ -value in each graph is the  $p$ -value of testing whether the difference in weights is the same in the usual and the high stakes condition. In both experiments, we cannot reject that it is.

Figure A.VI: Visual Presentation of Draws in Experiment 3

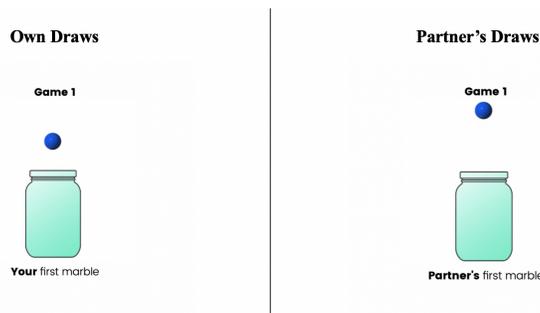
(a) Informed Of Partner's Draws



(b) Observe Partner's Draws



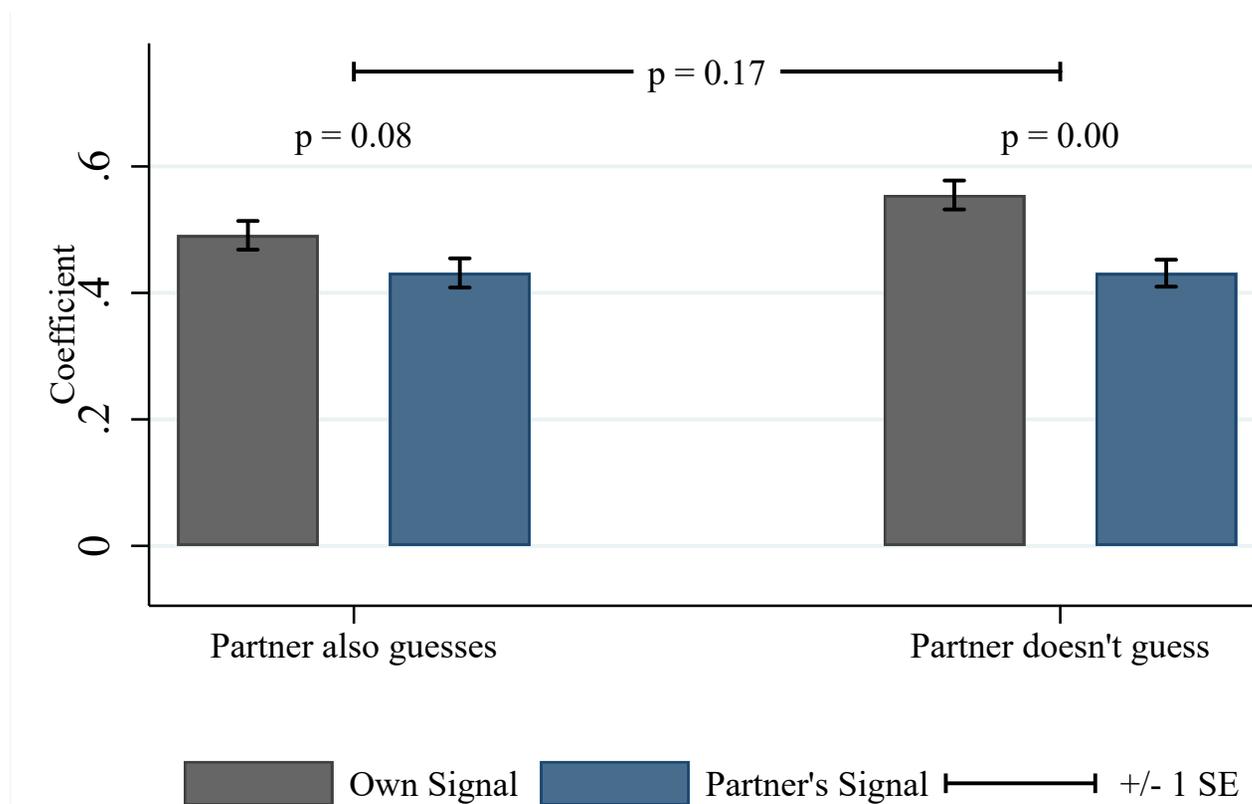
(c) Labels Only



*Notes:* This figure shows how the participant's own information and partner's information was presented in the Qualtrics survey for the different treatments in Experiment 3. The left panel of the figure shows how their own information was presented, and the right panel shows how their partner's information was presented. The arrows indicate subsequent screens. In all treatments, we emphasized that own and partner's draws were made from the same urn. **Panel A** shows how draws were presented in the *Informed of Partner's Draws* treatment. To obtain their own draws, participants clicked to draw balls one by one from a virtual urn, and after each ball was shown, clicked again to put it back in the urn, which was then animated to shuffle. In contrast, participants learned their partner's draws in summary form as shown in the right part of the panel. **Panel B** shows how draws were presented in the *Observe Partner's Draws* treatment. Participants obtained their own draws in exactly the same way as in the *Informed of Partner's Draws* round. For their partner's draws, participants were shown the same virtual urn and saw their partner's draws being revealed by the same ball-by-ball animation. However, the draws appeared one by one *without* clicking on the urn to obtain them. **Panel C** shows how draws were presented in the *Labels Only* treatment. The participants were shown a virtual urn and saw their own draws revealed by the same ball-by-ball animation, without having to click. Their partner's draws were revealed in exactly the same way.

Figure A.VII: Experiment 3: Reduced-Form Estimates – Guessing vs. Non-guessing Partner in the *Informed* Treatment

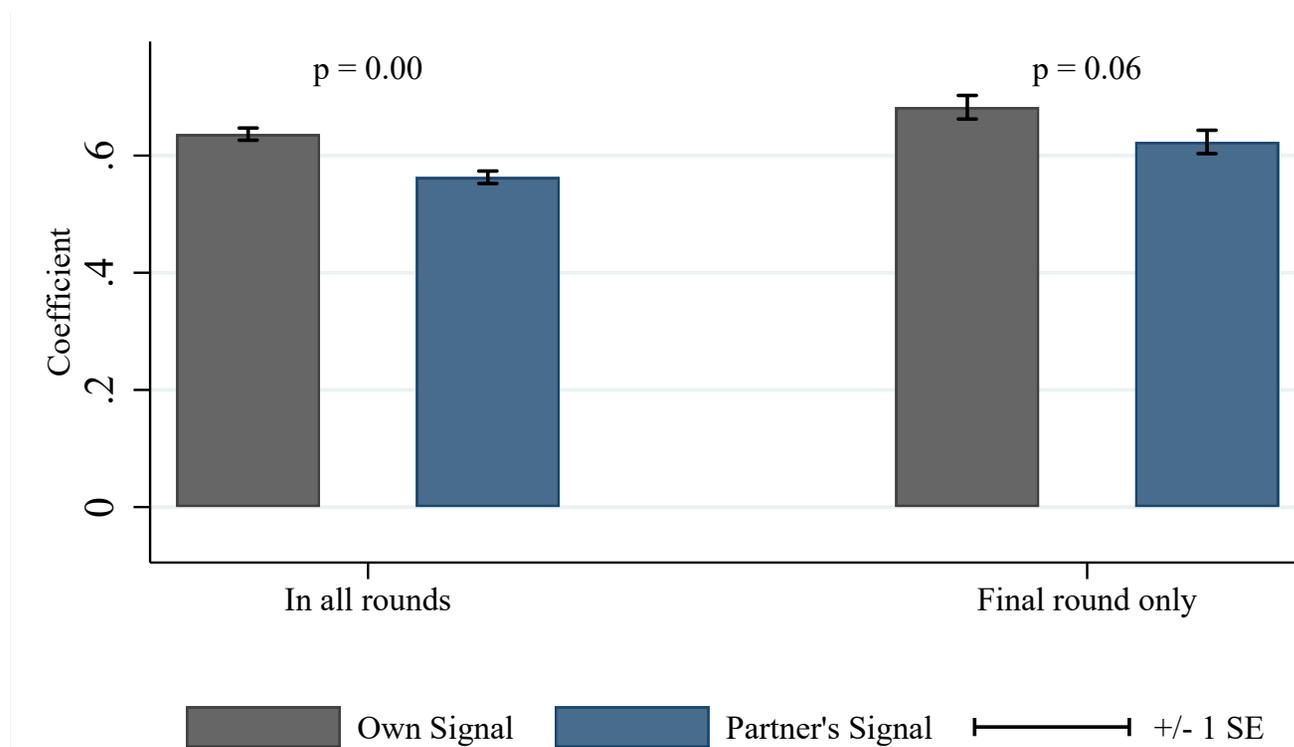
50



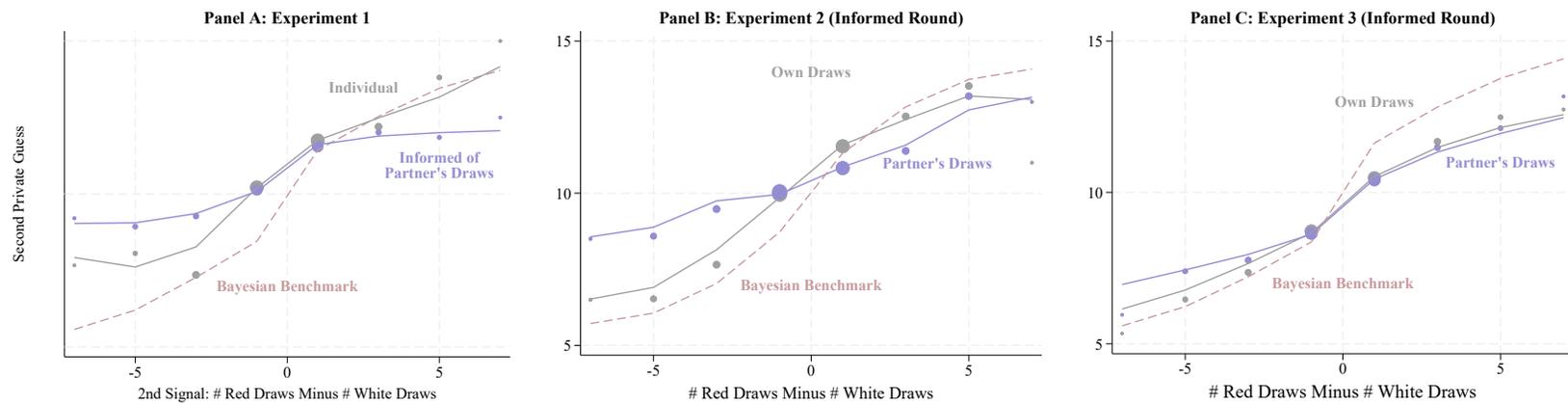
*Notes:* This figure shows OLS estimates of equation 1 for participants in the *Informed of Partner's Draws* treatment in Experiment 3, separately by whether they were also assigned to the *Non-Rivalry* treatment, i.e., by whether their partner also guessed ('Guessing partner') or not ('Non-guessing partner'). For each of the dark-blue bars, we show the  $p$ -value of testing whether the weight on own information (gray bar) equals the weight on partner's information (blue bar). The higher, centered  $p$ -value is the  $p$ -value of testing whether the difference in weights is the same across the two treatments. We cannot reject that it is. See Table A.VIII for the underlying numbers displayed in this figure.



Figure A.IX: Weights on Own vs. Others' Signals for Participants Who Remember All Draws (Experiment 3)



*Notes:* Participants in Experiment 3 were asked at the end of their final round (out of 5) if they remembered their own and their partner's draws from that round. This question was unannounced and unincentivized. This figure shows OLS estimates of equation 1 in Experiment 3 for participants who correctly remembered both, pooling across treatments. The left pair of bars shows these participants' weights pooling all five rounds and the right set their weights in the final round only (i.e., the round for which they correctly remembered). Above each pair of bars, we show the  $p$ -value of testing whether the weight on own information (gray) equals the weight on partner's information (dark blue).

Figure A.X: Guesses in the *Informed* round vs Bayesian Benchmark: Non-Parametric Estimates

*Notes:* This figure shows the average second private guesses of participants in the *Individual* and *Informed of Partner's Draws* rounds of Experiment 1 and the *Informed of Partner's Draws* rounds of Experiment 2 and 3. For Experiment 1, we plot the guess in the *Individual* round against the participant's own second signal in gray and the guess in the *Informed of Partner's Draws* round against their partner's signal in blue. For Experiments 2 and 3, we plot the guess against the participant's own signal (unconditional on partner's signal) in gray, and then again against their partner's signal (unconditional on own signal), in blue. The x-axis shows the net number of red draws (i.e. red draws minus white draws) in a given signal. Dots indicate average guesses, with dot size indicating number of observations, while the solid curves show locally weighted means (lowess). Because the signals are symmetrically distributed, equal weighting of own and others' information would imply the two curves should be equally steep. The dotted lines show the average of a risk-neutral Bayesian's guess given the same signals.

## A.2 Supplementary Tables

Table A.I: Comprehension and Memory

Question	Experiment 1	Experiment 2
<i>A. Basic Design</i>		
Number of balls	0.97	0.99
Colors of balls	1.00	1.00
<i>B. Common Prior</i>		
Possible < 4 red	0.93	0.96
Possible > 16 red	0.93	0.97
Who chooses number of red balls	0.81	0.84
Likelihood of each number	0.78	0.61
<i>C. Signals</i>		
Learn more from more balls	0.88	0.88
Possible have 4 draws	0.76	0.69
How number draws differs	0.47	0.47
How partner’s draws differ	0.61	0.63
<i>D. Incentives</i>		
Payment if 1 off	0.90	0.95
Payment if way off	0.85	0.92
Payment if 4 off	0.92	0.93
<i>E. Memory</i>		
Correctly remembered own guess	0.92	
Correctly remembered # of own draws	0.97	0.96
Correctly remembered # of own red draws	0.85	0.81
Correctly remembered # of partner’s draws		0.89
Correctly remembered # of partner’s red draws		0.70

*Notes:* This table shows summary statistics of participants’ comprehension of the task and their memory of previous draws and guesses. Column 1 shows the sample of 500 individuals of Experiment 1; and column 2 shows the sample of 292 individuals of Experiment 2. Panels A through D show the fraction of participants who answered each question correctly. For each question, we corrected the participant if they gave a wrong answer. Panel E shows the fraction of people who correctly remembered their own and their partner’s in some of the rounds.

- **Panel A** shows answers to questions “How many balls are in the urn?” (correct answer: 20), and “What colors are the balls?” (red and white).
- **Panel B** “Is it possible to have less than 4 /more than 16 red balls?” (no); “Who chooses how many balls are red?” (the computer), and “Are some numbers more likely than others?” (no).
- **Panel C** “Do you learn more from one draw or five draws?” (five); “Can you get exactly 4 draws in any round?” (no); “Will you have the same or different numbers of draws across rounds?” (could be same or different); “Will your partner have the same or different number to you?” (could be same or different).
- **Panel D** shows the fraction of people who could correctly indicate their payment on the scale if their guess was 1, 11, or 4 balls off.
- **Panel E** shows the proportion of participants who correctly remember their own guess and draws. “Correctly remembered own guess” correspond to the fraction of people who correctly remember their own guess in the *Informed of Partner’s Guess* round of Experiment 1. “Correctly remembered # of own draws” and “Correctly remembered # of own red draws” correspond to the fraction of people who correctly remember their own draws in the in the *Informed of Partner’s Draws* round in Experiment 1, and correspond to results pooled across 4 rounds, including the *Observe Partner’s Draws* round in Experiment 2. “Correctly remember # of partner’s draws” and “Correctly remembered # of partner’s red draws” correspond to the *Observe Partner’s Draws* round in Experiment 2.

Table A.I: (continued) Comprehension - Experiment 3

	<b>Experiment 3</b>
Goal of task	0.81
Number of balls	0.93
Possible numbers of red balls	0.97
Playing with partner	0.88
Drawing with replacement	0.90
Same urn as partner	0.91
Urn re-randomized across rounds	0.93
Incentive scheme	0.99

*Notes:* This continues Table A.I, showing summary statistics of participants' comprehension of the task in Experiment 3. Participants were asked 8 multiple-choice questions; if they got a question wrong, they had to retry until they got it right (they could re-read the relevant instruction). Shown are the fraction of participants answering each question correctly first time. The questions are shown below, with the correct answer in brackets.

- Goal of task – "What is the goal of the game you are playing today?" (To guess the number of red marbles in a virtual jar)
- Number of balls – "How many marbles are in the jar total?" (20)
- Possible numbers of red balls – "And how many red marbles could possibly be in the jar?" (Between 4 and 16 red marbles)
- Playing with a partner – "Who are you playing this game with?" (a real person who is taking the survey at about the same time with me). Note that in the *Non-rivalry* treatment, the correct answer was 'A real partner who is taking the survey at around the same time as me but doing a different task than what I'm doing'.
- Drawing with replacement – "Which of the following statements is correct: After each draw, the marble is not put back in the jar / After each draw, the marble gets put back and the contents get shuffled" (After each draw, the marble gets put back and the contents get shuffled)
- Same urn as partner – "Which of these statements is correct: My partner and I are drawing marbles from the same jar with the same number of red marbles / ... different number of red marbles / I am drawing marbles from the jar, and my partner is not / My partner is drawing marbles from the jar, and I am not" (My partner and I are drawing marbles from the same jar with the same number of red marbles)
- Urn re-randomized across rounds – "Which of these statements is correct: I will only play this game once / I will play this game 5 times with the contents of the jar always being the same / I will play this game 5 times with the contents of the jar being re-randomized each time" (I will play this game 5 times with the contents of the jar being re-randomized each time)
- Incentive scheme – "How can you affect the outcome of your bonus payment?" (For a randomly chosen guess, the closer I was to the true number of red marbles in the jar, the higher is my bonus)

Table A.II: Transcripts of Joint Discussions: Summary Statistics

<b>Experiment 1</b>	
Any information shared	0.83
Anyone Shared Guess	0.54
Anyone Shared Number of Draws	0.36
Anyone Shared Composition of Draws	0.48
Length of Discussion (seconds)	47.89

*Notes:* This table shows averages of key characteristics of the discussions in Experiment 1. These variables were constructed using transcripts of the discussions between participants before the joint guesses were made. Variables are measured at the discussion (pair) level.

- We pool the discussions from the two *Discussion* rounds in Experiment 1, excluding those with same-gender pairs. Accurate transcript data were not collected for same-gender discussions due to challenges in identifying the two participants.
- ‘Anyone Shared Guess’ equals one if either person shared their guess and ‘Anyone Shared Number of Draws’ equals one if either person shared their number of draws. ‘Anyone Shared Composition of Draws’ equals one if either person shared the specific color composition of their draws (e.g. “I drew 4 red balls and 1 white ball”) or mentioned that they drew more of one color (“I drew more red balls than white”). “Any information shared” equals one if either person shared their guess, number of draws, or composition of draws.
- For each variable, we drop observations for which the variable could not be recorded due to an inaudible or unclear recording. This affected 10% of the sample for Length of Discussion and 38-39% of the sample for each of the other variables in the table.

Table A.III: Experiment 1: Error in Guess by Type of Guess and Number of Draws

	Individual (1)	Discussion (2)	Informed (Pre) (3)	Informed (Post) (4)
$\gamma_1$ : # Own First Draws	-0.13 (0.06)	-0.08 (0.04)	-0.08 (0.05)	-0.02 (0.05)
$\gamma_2^o$ : # Own Second Draws	-0.16 (0.06)			
$\gamma_2^p$ : # Partner's Draws		-0.05 (0.05)	0.03 (0.06)	0.00 (0.06)
Constant	4.12 (0.46)	3.55 (0.33)	3.37 (0.46)	3.14 (0.46)
$\gamma_2^p - \gamma_2^o$		<b>0.11</b> <b>(0.08)</b>	<b>0.19**</b> <b>(0.08)</b>	<b>0.16*</b> <b>(0.08)</b>
N	500	1000	500	500

*Notes:* This table compares the error in participants' guesses (the absolute difference between their guess and the true number of red balls in the urn) in the *Discussion*, *Informed of Partner's Draws*, and *Individual* round. The table shows OLS estimates of the following equation for the *Discussion* and *Informed of Partner's Draws* rounds:

$$|Guess - Truth|_{irt} = \alpha + \gamma_1 \# Own First Draws_i + \gamma_2^p \# Partner's Draws_i + \epsilon_i \quad (7)$$

and OLS estimates of the following equation for the *Individual* round:

$$|Guess - Truth|_{irt} = \alpha + \gamma_1 \# Own First Draws_i + \gamma_2^o \# Own Second Draws_i + \epsilon_i \quad (8)$$

where  $|Guess - Truth|_{irt}$  is the absolute value of difference between  $i$ 's guess and the true number of red balls in the urn in the round in question, and  $\# Own First Draws_i$  indicates the number of draws in the first set of signals, drawn oneself.  $\# Own Second Draws$  is the number of draws in the participant's second set in the *Individual* round and  $\# Partner's Draws$  is the participant's partner's number of draws, in the *Discussion* and *Informed of Partner's Draws* rounds. In estimation, we stack the estimating equations for all treatment and estimate them jointly including controls for round order fixed effects. Standard errors are clustered at the pair level. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\gamma_2^p - \gamma_2^o$ .

Table A.IV: Weights on Own vs. Others' Signals under Usual vs. Higher Stakes

	Usual Stakes (1)	Higher Stakes (2)
<i>Panel A: Experiment 2</i>		
$\beta_1$ : Own Signal	0.62 (0.09)	0.59 (0.07)
$\beta_2^p$ : Partner's Signal	0.36 (0.08)	0.28 (0.06)
Constant	10.47 (0.12)	10.44 (0.11)
$\beta_2^p - \beta_1$	<b>-0.26**</b> (0.13)	<b>-0.30***</b> (0.11)
<b><math>p</math>-value: <math>\beta_2^p - \beta_1</math> equal across treatments</b>		<b>0.66</b>
$N$	1602	1602
<i>Panel B: Experiment 3</i>		
$\beta_1$ : Own Signal	0.50 (0.01)	0.51 (0.01)
$\beta_2^p$ : Partner's Signal	0.43 (0.01)	0.45 (0.01)
Constant	9.56 (0.03)	9.58 (0.03)
$\beta_2^p - \beta_1$	<b>-0.08***</b> (0.02)	<b>-0.06***</b> (0.02)
<b><math>p</math>-value: <math>\beta_2^p - \beta_1</math> equal across treatments</b>		<b>0.55</b>
$N$	9770	10190

*Notes:* This table shows OLS estimates of Equation 1 separately by whether participants faced usual or higher stakes (incentives). This table reports the same estimates as Figure A.V. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\beta_2^p - \beta_1$ .

Table A.V: Experiment 3: Sensitivity of First Guesses to Own vs Other’s Signal

	Informed (1)	Observe (2)	Labels Only (3)
$\beta_1$ :First Signal $\cdot \mathbb{1}(\text{Own})$	0.66 ( 0.02)	0.67 ( 0.02)	0.61 ( 0.02)
$\beta_2^p$ :First Signal $\cdot \mathbb{1}(\text{Partner's})$	0.55 ( 0.02)	0.59 ( 0.02)	0.63 ( 0.02)
Constant	9.45 ( 0.04)	9.52 ( 0.03)	9.64 ( 0.03)
$\beta_2^p - \beta_1$	<b>-0.11***</b> <b>(0.03)</b>	<b>-0.07***</b> <b>(0.03)</b>	<b>0.02</b> <b>(0.03)</b>
$p$ -value: $\beta_2^p - \beta_1$ same as in Informed		0.34	0.00
$p$ -value: $\beta_2^p - \beta_1$ same as in Observe			0.02
N	5040	7485	7435

Notes: This table shows reduced-form results, estimating the following equation by OLS:

$$FirstGuess_i = \alpha + \beta_1 \cdot FirstSignal_i \cdot \mathbb{1}(\text{Own}) + \beta_2^p \cdot FirstSignal_i \cdot \mathbb{1}(\text{Partner's}) + \epsilon_i$$

where the dependent variable  $FirstGuess_i$  is participant  $i$ 's first private guess (before seeing the second signal).  $FirstSignal_i$  indicates the net number of red draws (i.e., red draws minus white draws) in the first signal that the participant saw,  $\mathbb{1}(\text{Own})$  is a dummy variable indicating whether this was  $i$ 's own signal, and  $\mathbb{1}(\text{Partner's})$  is a dummy variable indicating whether this was  $i$ 's partner's signal. "Informed" refers to the *Informed of Partner's Draws* round and "Observe" to the *Observe Partner's Draws* round. Standard errors are clustered at the pair level. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\beta_2^p - \beta_1$ .

Table A.VI: Experiment 3: Sensitivity of First Guesses to Own vs Other’s Signal in Round 1

	Informed (1)	Observe (2)	Labels Only (3)
$\beta_1$ :First Signal $\cdot \mathbb{1}(\text{Own})$	0.66 (0.04)	0.65 (0.03)	0.63 (0.04)
$\beta_2^p$ :First Signal $\cdot \mathbb{1}(\text{Partner's})$	0.42 (0.05)	0.52 (0.04)	0.65 (0.04)
Constant	9.48 (0.07)	9.53 (0.06)	9.73 (0.06)
N	1008	1497	1487
$\beta_2^p - \beta_1$	<b>-0.24***</b> (0.07)	<b>-0.14**</b> (0.05)	<b>0.02</b> (0.05)
$p$ -value: $\beta_2^p - \beta_1$ same as in Informed			
$p$ -value: $\beta_2^p - \beta_1$ same as in Observe			
N	1008	1497	1487

Notes: This table shows reduced-form results, estimating the following equation by OLS:

$$FirstGuess_i = \alpha + \beta_1 \cdot First\ Signal_i \cdot \mathbb{1}(\text{Own}) + \beta_2^p \cdot First\ Signal_i \cdot \mathbb{1}(\text{Partner's}) + \epsilon_i$$

where the dependent variable  $FirstGuess_i$  is participant  $i$ 's *first* private guess (before seeing the second signal) in the first round of the experiment.  $First\ Signal_i$  indicates the net number of red draws (i.e., red draws minus white draws) in the first signal that the participant saw,  $\mathbb{1}(\text{Own})$  is a dummy variable indicating whether this was  $i$ 's own signal, and  $\mathbb{1}(\text{Partner's})$  is a dummy variable indicating whether this was  $i$ 's partner's signal. "Informed" refers to the *Informed of Partner's Draws* round and "Observe" to the *Observe Partner's Draws* round. Standard errors are clustered at the pair level. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\beta_2^p - \beta_1$ .

Table A.VII: Heterogeneity

	Comprehension:		Education:		Performance Belief:	
	Below median (1)	Above median (2)	Below median (3)	Above median (4)	Below median (5)	Above median (6)
<i>Panel A: Experiment 1</i>						
$\beta_1$ : Own Info	0.48 (0.04)	0.51 (0.04)	0.41 (0.04)	0.58 (0.04)	0.47 (0.04)	0.44 (0.08)
$\beta_2^p$ : Partner's Info	0.25 (0.04)	0.33 (0.04)	0.28 (0.04)	0.30 (0.04)	0.28 (0.04)	0.29 (0.06)
$\beta_2^p - \beta_1$	<b>-0.23***</b> (0.06)	<b>-0.18***</b> (0.06)	<b>-0.13**</b> (0.06)	<b>-0.28***</b> (0.06)	<b>-0.18***</b> (0.06)	<b>-0.16</b> (0.10)
<i>p-val.</i> : $\beta_2^p - \beta_1$ equal	<b>0.57</b>		<b>0.11</b>		<b>0.84</b>	
<i>Panel B: Experiment 2</i>						
$\beta_1$ : Own Info	0.48 (0.06)	0.57 (0.05)	0.48 (0.06)	0.59 (0.05)		
$\beta_2^p$ : Partner's Info	0.31 (0.04)	0.34 (0.06)	0.24 (0.04)	0.39 (0.05)		
$\beta_2^p - \beta_1$	<b>-0.17**</b> (0.07)	<b>-0.23***</b> (0.08)	<b>-0.23***</b> (0.08)	<b>-0.20***</b> (0.07)		
<i>p-val.</i> : $\beta_2^p - \beta_1$ equal	<b>0.61</b>		<b>0.76</b>			
<i>Panel C: Experiment 3</i>						
					Remember	Say Treat
					All Draws	Same
$\beta_1$ : Own Info	0.45 (0.01)	0.54 (0.01)	0.48 (0.01)	0.53 (0.01)	0.68 (0.02)	0.53 (0.01)
$\beta_2^p$ : Partner's Info	0.36 (0.01)	0.48 (0.01)	0.41 (0.01)	0.46 (0.01)	0.62 (0.02)	0.45 (0.01)
$\beta_2^p - \beta_1$	<b>-0.08***</b> (0.02)	<b>-0.06***</b> (0.01)	<b>-0.08***</b> (0.02)	<b>-0.06***</b> (0.02)	<b>-0.06*</b> (0.03)	<b>-0.08***</b> (0.01)
<i>p-val.</i> : $\beta_2^p - \beta_1$ equal	<b>0.37</b>		<b>0.61</b>			

This table shows estimates of Equation 1 estimated on subsets of the data. Columns 1 and 2 show estimates by whether comprehension (the percentage of comprehension questions answered correctly first time) is above or below median. The median was 79% in Experiments 1 and 2, and 100% in Experiment 3 (so 'above median' means everyone who got all questions right). Columns 3 and 4 show estimates by whether years of education is above or below median. Columns 5 and 6 show in Panel A estimates by whether the guesser's belief about their own performance – specifically, how much they expected their guesses to earn on average – is above or below median. This was only asked about in Experiment 1. In Panel C, column 5 restricts the Experiment 3 data to the final round of the experiment and to participants who correctly remember both their own and their partner's draws (asked after the round ended), while column 6 restricts the Experiment 3 data to participants who answered in a debriefing question at the end of the survey that they “treated my draws and my partner's draws the same.” For each pair of columns, “*p-val.*:  $\beta_2^p - \beta_1$  equal” is the *p*-value from testing the hypothesis that  $\beta_2^p - \beta_1$  is the same in each subsample. The data pools all treatments except the *Individual* round in Experiment 1. Standard errors in parentheses. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\beta_2^p - \beta_1$ .

Table A.VIII: Experiment 3: Reduced-Form Estimates – Rivalry

	Partner also guesses (1)	Partner doesn't guess (2)
$\beta_1$ : Own Signal	0.49 (0.02)	0.55 (0.02)
$\beta_2^p$ : Partner's Signal	0.43 (0.02)	0.43 (0.02)
Constant	9.54 (0.07)	9.59 (0.06)
$\beta_2^p - \beta_1$	<b>-0.06*</b> <b>(0.03)</b>	<b>-0.12***</b> <b>(0.03)</b>
<b><math>p</math>-value: <math>\beta_2^p - \beta_1</math> equal across treatments</b>		<b>0.17</b>
$N$	2525	2515

*Notes:* This table shows OLS estimates of Equation 1 for participants in the *Informed of Partner's Draws* treatment in Experiment 3, separately by whether their partner also guessed or did not guess (the *Non-Rivalry* treatment). This table reports the same estimates as Figure A.VII. The bottom row shows the  $p$ -value of testing whether the difference in weights is the same across the two treatments. Standard errors in parentheses. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\beta_2^p - \beta_1$ .

Table A.IX: Memory of Own vs. Others' Draws in Experiment 3

	Informed (1)	Observe (2)	Labels Only (3)
Fraction Remembering:			
Own Draws	0.64 (0.02)	0.60 (0.01)	0.58 (0.01)
Partner's Draws	0.56 (0.02)	0.55 (0.01)	0.55 (0.01)
p-val.: Equal memory of own and partner's	0.00	0.00	0.05
<i>N</i>	2016	2994	2974

*Notes:* Participants in Experiment 3 were asked at the end of their final round (out of 5) if they remembered their own and their partner's draws – both number and color composition – from that round. This question was unannounced and unincentivized. This table shows the fraction of participants correctly remembering their own versus their partner's information in each treatment in Experiment 3. In each column we show the  $p$ -value of testing whether the fraction remembering own and partner's draws is the same within that treatment. Standard error of the mean in parentheses. This table reports the same estimates as Figure A.VIII.

## B Supplementary Information

### B.1 *Informed of Partner's Guess* Round in Experiment 1

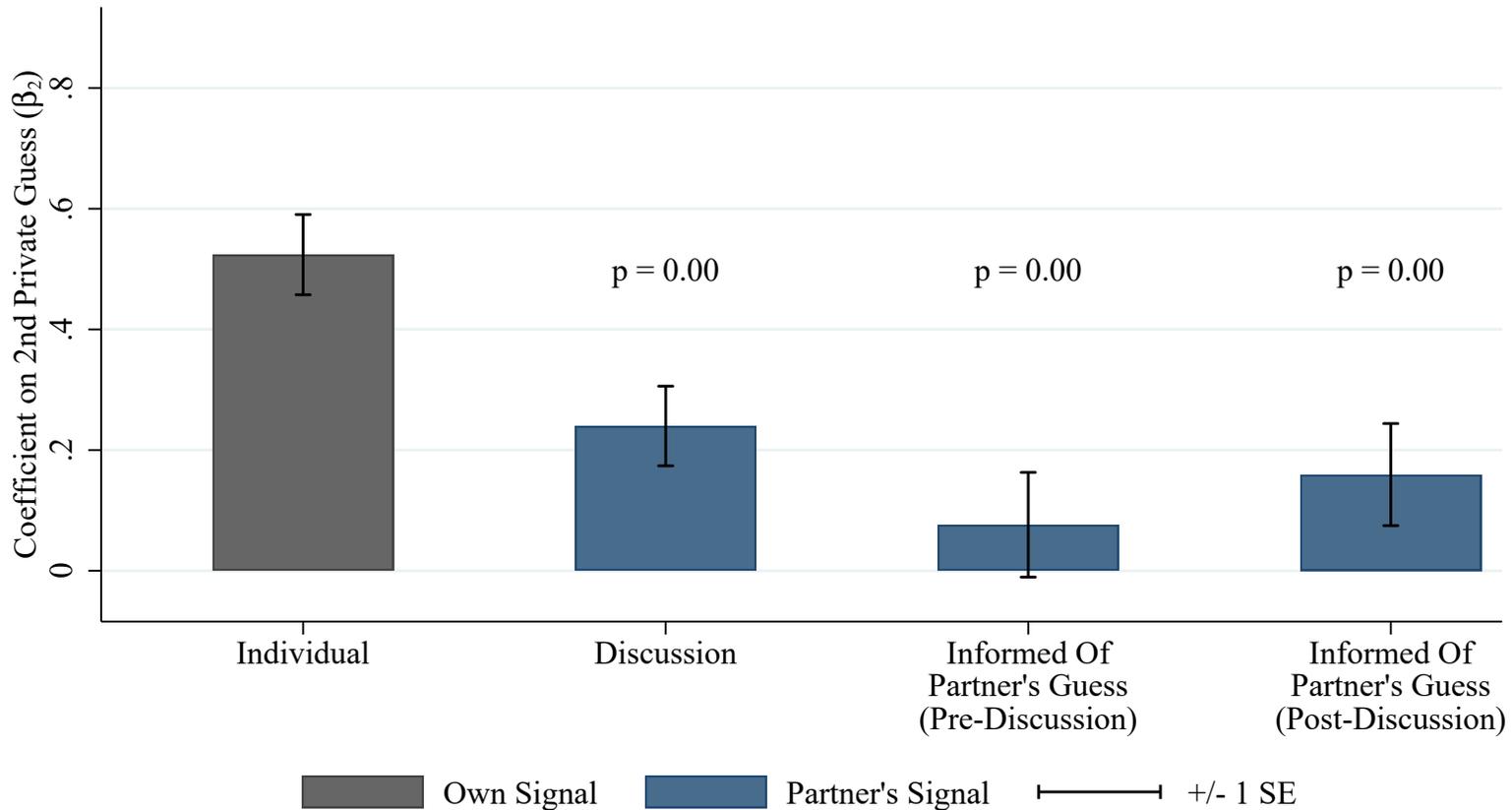
The *Informed of Partner's Guess* round in Experiment 1 is identical to the *Informed of Partner's Draws* round, except that instead of sharing with each person the number of balls of each color their partner drew, the surveyor shares their partner's guess and the total number of draws (1, 5, or 9) on which that guess was based. Figure A.XI shows estimates for the *Individual*, *Discussion*, and *Informed of Partner's Guess* rounds. The results look similar to those for the *Informed of Partner's Draws* round. People strongly discount their partner's information relative to their own in both the pre-discussion and post-discussion guesses. This could be explained by differential processing of own compared to others' information, but also by other (potentially rational) reasons, such as mistrust of partners' guesses or the increased computational difficulty of backing out what the partner's information must have been given their guess. Table A.X shows the corresponding reduced-form and structural estimates, which confirm the visual impressions from Figure A.XI.<sup>35</sup>

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<sup>35</sup>Note that the structural estimates assume that participants are able to back out from their partner's guess what their information must have been. Less weight on the partner's information could therefore reflect not just intrinsic discounting of others' information but also the extent to which this is a difficult problem for participants to solve (or one they do not attempt to solve).

Figure A.XI: Experiment 1: Reduced Form Estimates – Informed of Partner’s Guess Round

### Weights on Own vs. Others' Signals



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Notes: This figure shows the weights participants put on different signals in Experiment 1. We estimate Equation (1) and then display  $\beta_2$  for each of the following four types of private guesses:

- (a) *Individual*, where participants collect all information on their own. For this round, we replace *Partner's Info* in Equation (1) by the net red draws in the participant's second set of signals;
- (b) *Discussion*, in which participants collect the first set of information on their own and the second set (their partner's) is only accessible via discussion;
- (c) *Informed of Partner's Guess (pre-discussion)*, where participants have learned their partner's guess and number of draws directly from the experimenter but before any discussion with their partner;
- (d) *Informed of Partner's Guess (post-discussion)*, where participants have learned their partner's guess and number of draws *and* had the chance to discuss it with their partner.

For each of the dark-blue bars, we show the  $p$ -value of testing whether the weight in that round equals the corresponding weight in the *Individual* round (gray bar).

Table A.X: Reduced-Form Estimates in the Informed of Partner’s Guess Round

	Individual	Discussion	Informed (Pre)	Informed (Post)
	(1)	(2)	(3)	(4)
$\beta_1$ : Own First Signal	0.43 (0.06)	0.56 (0.06)	0.50 (0.10)	0.40 (0.10)
$\beta_2^o$ : Own Second Signal	0.52 (0.07)			
$\beta_2^p$ : Partner’s Signal		0.24 (0.07)	0.08 (0.09)	0.16 (0.08)
Constant	10.71 (0.16)	10.73 (0.16)	10.58 (0.22)	10.65 (0.22)
$\beta_2^p - \beta_2^o$		<b>-0.28***</b> <b>(0.08)</b>	<b>-0.45***</b> <b>(0.11)</b>	<b>-0.36***</b> <b>(0.11)</b>
N	500	1000	500	500

*Notes:* This table shows reduced-form estimates of Equation 1 for the *Individual*, *Discussion* and *Informed of Partner’s Guess* rounds in Experiment 1. The dependent variable is participants’ private guess. ‘Informed (Pre)’ means the second private guess from the *Informed of Partner’s Guess* round, after the participant was directly told their partner’s guess but before the joint discussion. ‘Informed (Post)’ means the third private guess, after the discussion. ‘Own First Signal’ is the net number of red draws (i.e., red draws minus white draws) in the participant’s first set of draws, which they drew themselves in all rounds. ‘Own Second Signal’ is the net number of red draws in the participant’s second set of draws in the individual round. ‘Partner’s Signal’ is the net number of red draws in the set of draws by the participant’s partner, which was the second signal available to the participant in the *Discussion* and *Informed of Partner’s Guess* rounds. All regressions include order fixed effects interacted with the participant’s first and second signal. All standard errors are clustered at the pair (of two participants) level. \*, \*\*, and \*\*\* indicate significance at the  $p < 0.10$ , 0.05, and 0.01 levels of the difference  $\beta_2^p - \beta_2^o$ .

## B.2 Comparing Structural to Non-Structural Results

In this section we consider whether the estimates of the structural model outlined in Section 3.3 are consistent with the main non-structural results presented elsewhere in Section 4.3. To do so, we simulate, using the estimates of the parameters of the model, what guesses participants in Experiment 1 would make given the signals they had. To eliminate unnecessary noise, instead of simulating just once for each guess of what the participant would choose (which is noisy), we calculate the expected guess. We then produce a version of Panel A of Table 2 using the simulated data. The question these analyses allow us to answer is, “Are the estimated biases from the structural model sufficient to explain the patterns found in the reduced-form and non-structural results?” If the model implied that the non-structural analyses would look very different than in fact they do, this would suggest that the model is not capturing something important about the biases we document.

Panel A of Table A.XI replicates Panel A of Table 2, our main reduced-form results for Experiment 1. Panel B shows the same regressions but using the model-implied expected guesses as the dependent variable rather than participants’ true guesses. Note that these variables, because they are expectations rather than single draws from the distribution of guesses, are mechanically much less noisy than the actual guesses. However, as Table A.XI shows, the *size* of the coefficients are quite similar (i.e., comparing within column across panels). Our interpretation of these results is that the model estimates are sufficient to explain the pattern of results shown in the reduced-form analyses.

Figure A.XII compares the non-parametric results from Figure 3 with similar estimates using the model-simulated data. There are four panels, representing the *Individual* round, *Discussion* round, *Informed of Partner’s Draws* round (pre-discussion), and *Informed of Partner’s Draws* round (post-discussion). Each panel shows the estimates given the actual guesses that participants make (in gray) along with the model-simulated expected guesses (in blue). As expected, actual guesses are noisier, but the slopes of the curves are extremely similar within each panel, suggesting that the non-parametric and structural effect sizes are of comparable magnitude. Note that there is a slight bias in the actual data toward guessing more red balls in the urn, which the structural model by construction cannot deliver (as evidenced by the gray tending to lie above the blue curve).

Table A.XI: Comparing Reduced-Form to Structural Results

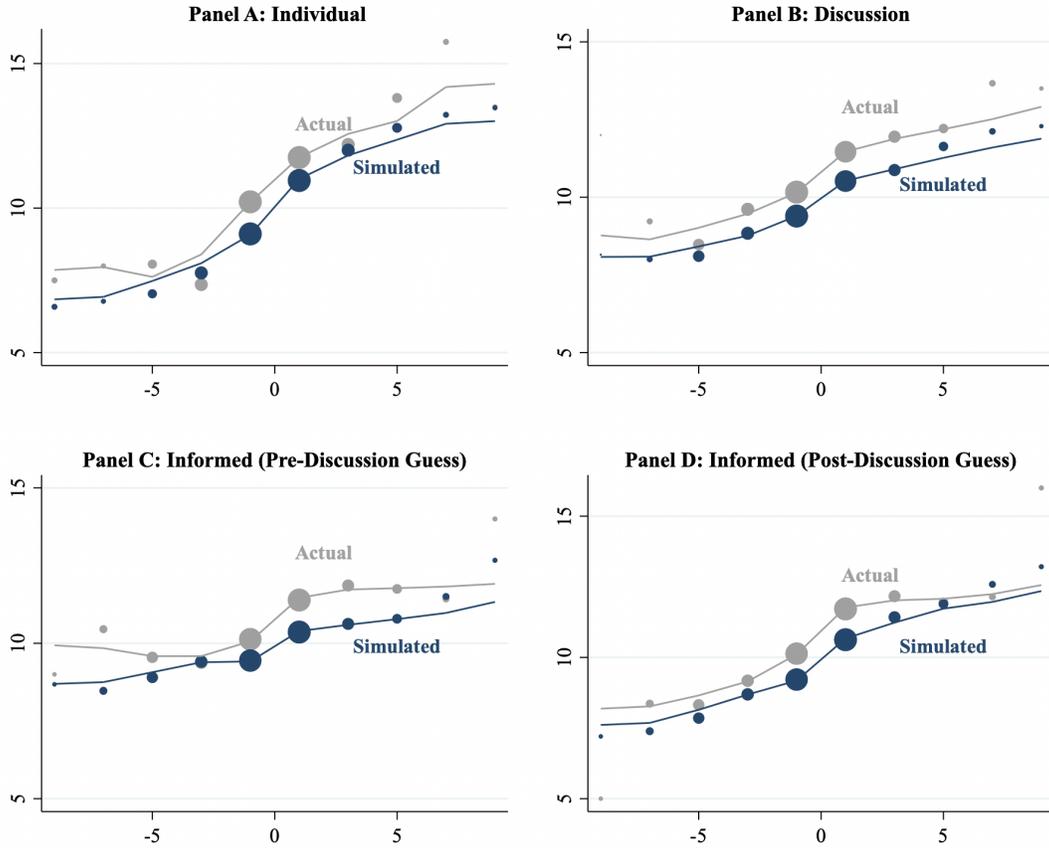
	Individual (1)	Discussion (2)	Informed (Pre) (3)	Informed (Post) (4)
<i>Panel A: Actual Guesses</i>				
$\beta_1$ : Own First Signal	0.43 (0.06)	0.56 (0.06)	0.56 (0.09)	0.36 (0.09)
$\beta_2^O$ : Own Second Signal	0.52 (0.07)			
$\beta_2^P$ : Partner's Signal		0.24 (0.07)	0.07 (0.09)	0.28 (0.09)
Constant	10.71 (0.16)	10.73 (0.16)	10.64 (0.23)	10.66 (0.23)
$\beta_2^P - \beta_2^O$		<b>-0.28***</b> <b>(0.08)</b>	<b>-0.45***</b> <b>(0.11)</b>	<b>-0.24**</b> <b>(0.10)</b>
<i>Panel B: Model-Implied Expected Guesses</i>				
$\beta_1$ : Own First Signal	0.41 (0.01)	0.48 (0.01)	0.54 (0.02)	0.38 (0.01)
$\beta_2^O$ : Own Second Signal	0.58 (0.02)			
$\beta_2^P$ : Partner's Signal		0.24 (0.01)	0.04 (0.01)	0.27 (0.01)
Constant	9.98 (0.03)	9.98 (0.02)	9.98 (0.03)	9.98 (0.03)
$\beta_2^P - \beta_2^O$		<b>-0.34***</b> <b>(0.02)</b>	<b>-0.54***</b> <b>(0.02)</b>	<b>-0.31***</b> <b>(0.02)</b>
	500	1000	500	500

This table shows reduced-form weights on information in the Individual, Discussion and Informed of Partner's Draws rounds in Experiment 1. "Informed of Partner's Draws (Pre-Discussion)" means the dependent variable is the second private guess from the Informed of Partner's Draws round, after the participant was directly told their partner's information but before discussing it with their partner. "Informed of Partner's Draws (Post-Discussion)" means the dependent variable is the third private guess, after the discussion.

**Actual Guesses:** Panel A shows reduced-form results, estimating Equation 1 by OLS. The dependent variable is participants' actual private guess. "Own First Signal" is the net number of red draws (i.e., red draws minus white draws) in the participant's first set of signals, which they drew themselves in all rounds. "Own Second Signal" is the net number of red draws in the participant's second set of signals in the individual round. "Partner's Signal" is the net number of red draws in the set of signals drawn by the participant's teammate, which was the second set of signals available to the participant in the Discussion and Informed of Partner's Draws rounds. All regressions include order fixed effects interacted with the participant's first and second info.

**Model-Implied Expected Guesses:** show the same regressions as Panel A, but use the expected guesses (conditional on actual signals) implied by the structural estimates presented in Panel B of Table 2.

Figure A.XII: Simulated Guesses in Individual, Discussion, and Informed of Partner's Draws Rounds



*Notes:* This figure compares average actual guesses in Experiment 1 to the average *simulated* guess of participants using the structural model in Section 3.3. The x-axis shows the net number of red draws (i.e. red draws minus white draws) in the second signal of the round. The gray dots indicate average actual guesses, while blue dots indicate average simulated guesses. Panel A includes final private guesses in the *Individual* Round, where participants made the second set of draws themselves. Panel B includes final private guesses in the *Discussion* Round, where the second set of draws had to be communicated to the participant via discussion. Panel C includes the second private guesses in the *Informed of Partner's Draws* round, after the respondent is told of his/her partner's draws by the experimenter but before the joint discussion. Panel D includes final private guesses in the *Informed of Partner's Draws* round, after the joint discussion.

# C Experimental Scripts

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### C.1 Experimental Script for Experiment 1

## SECTION P: PREAMBLE

P0. Group ID |\_\_|\_\_|\_\_|  
[.>= 1 and . <= 125]

P1. PID: |\_\_|\_\_|\_\_|  
[.>= 1 and . <= 250]

P1a. Participant 1 ID: |\_\_|\_\_|\_\_|  
[.>= 1 and . <= 500]

P1b. Participant 2 ID: |\_\_|\_\_|\_\_|  
[.>= 1 and . <= 500]

P2. Interviewer

P2a. [Prefilled] Randomized interviewer (among present interviewers)

P3. Do you have the following things to proceed with the experiment?  
[ ] 1. Sheet with scale for guessing red balls in the urn along with a token  
[ ] 2. Sheet with payment mechanism  
[ ] 3. Sheet to explain randomization of final guess  
[ ] 4. A sample urn with red and white balls (10 each)  
[ ] 5. Tray with red and white balls (10 each)  
[ ] 6. Lid to cover the urn on the table  
[ ] 7. Two practice urns - (16,4) and (9,11)  
[ ] 8. Arrange all five urns for the activity at the back of the booth  
[ ] 9. Envelope with the guess that counts

P4. Date: |\_\_|\_\_|\_\_| YYY|\_\_|\_\_|MM|\_\_|\_\_|DD

P5. Interview Start Time: |\_\_|\_\_:|\_\_|\_\_| 24HR

### General prefills:

P6. [Prefilled] Randomized order of rounds  
P7. [Prefilled] Number of red balls in the urn in Round 1.  
P8. [Prefilled] Number of red balls in the urn in Round 2.  
P9. [Prefilled] Number of red balls in the urn in Round 3.  
P10. [Prefilled] Number of red balls in the urn in Round 4.  
P11. [Prefilled] Number of red balls in the urn in Round 5.

### Round 1 prefills:

P12. [Prefilled] Participant who goes first in Round 1.  
P13. [Prefilled] Participant who goes second in Round 1.  
P14. [Prefilled] Participant 1's number of draws from Round 1.  
P15. [Prefilled] Participant 2's number of draws from Round 1.  
P42. [Prefilled] Same-gender/opposite gender.

### Round 2 prefills:

- P16. [Prefilled] Participant who goes first in Round 2.
- P17. [Prefilled] Participant who goes second in Round 2.
- P18. [Prefilled] Participant 1's first number of draws from Round 2.
- P19. [Prefilled] Participant 2's first number of draws from Round 2.
- P20. [Prefilled] Participant 1's second number of draws from Round 2.
- P21. [Prefilled] Participant 2's second number of draws from Round 2.

**Round 3 prefills:**

- P22. [Prefilled] Participant who goes first in Round 3.
- P23. [Prefilled] Participant who goes second in Round 3.
- P24. [Prefilled] Participant 1's number of draws from Round 3.
- P25. [Prefilled] Participant 2's number of draws from Round 3.

**Round 4 prefills:**

- P26. [Prefilled] Participant who goes first in Round 4.
- P27. [Prefilled] Participant who goes second in Round 4.
- P28. [Prefilled] Participant 1's number of draws from Round 4.
- P29. [Prefilled] Participant 2's number of draws from Round 4.

**Round 5 prefills:**

- P30. [Prefilled] Participant who goes first in Round 5.
- P31. [Prefilled] Participant who goes second in Round 5.
- P32. [Prefilled] Participant 1's number of draws from Round 5.
- P33. [Prefilled] Participant 2's number of draws from Round 5.
- P43. [Prefilled] Same-gender/opposite gender.

**Beliefs about competence prefills:**

- P38. [Prefilled] Randomized belief chosen for Participant 2.
- P39. [Prefilled] Randomized belief chosen for Participant 1.

**Finalized round and guess prefills:**

- P40. [Prefilled] Randomized final round.
- P41. [Prefilled] Randomized final guess.

## SECTION A: INTRODUCTION

*[Do not read: Talk to participant 1 and ensure that the introduction for participant 2 starts simultaneously.]*

Thank you for coming today! My name is  $\$ \{p2\}$ . Would you like something to drink before we start the task? May we offer you some water, or tea, or coffee?

Please turn off your mobile phone till the end of this task. We want to ensure that you are attentive throughout the task.

As discussed before, you and another participant will take part in a task in which you can earn some money. Please take this task seriously. Your choices directly affect how much you earn.

This study aims to contribute to the welfare of the people. So, your participation is important to us. Before you make each choice, think well. Please consider these choices to be like decisions you make in real life.

### Section A1: General Overview

We will now explain the activity to you. **Similarly, another surveyor is explaining this activity to another participant.** You and another participant will then participate together in a total of five rounds that are all similar. In each round, you will see an urn such as this one.

*[Do not read: Show the sample urn with a few red and white balls.]*

Each urn contains a total of 20 balls. Some of these balls are white and others are red.

*[Do not read: Show the participant a tray with some white balls and some red balls.]*

Now we will ask you some questions about this task.

A1. How many balls are inside each urn?

a. 20 → Yes, that is correct.

b. Any other answer → No, there are 20 balls inside each urn.

A2. What are the colors of these balls?

a. Red and white → Yes, that is correct.

b. Any other answer → No, the balls are red and white.

In each round, the number of red and white balls will be unknown to you. You will only know that in total there are 20 balls inside the urn.

Your task will be to guess how many of these balls are red. In each round, you can draw some balls from the urn to help you make this guess.

A3. Now, can you describe to me in your own words what we would like you to do in this task?

*[Do not read: Select all points mentioned correctly by the participants.]*

a. Draw a few balls from the urn.

b. Based on the draws, guess how many of the balls in the urn are red.

A3a. *[Do not read: Did the participant describe all steps of the task accurately?]*

a. Yes → Proceed with the survey.

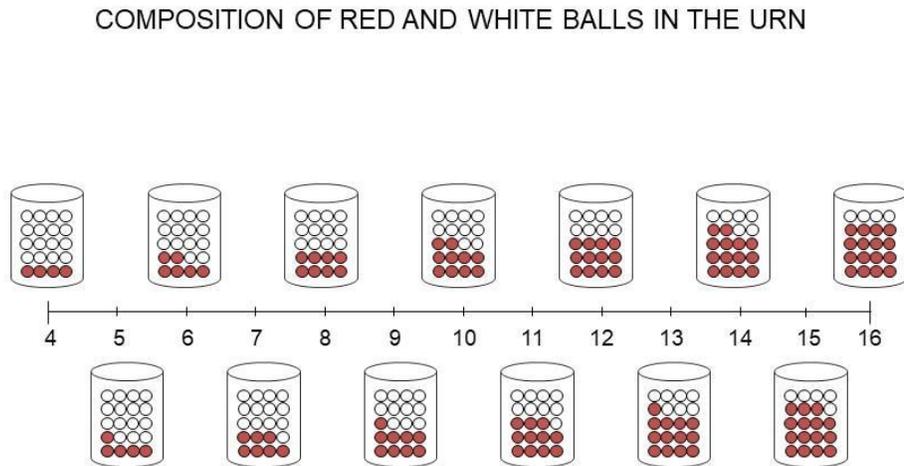
b. No, the participant missed or described incorrectly 1 of the 2 points. → Explain that particular point to the participant.

c. No, the participant missed or described incorrectly both points. → Explain Section A1 to the participant again. Ignore comprehension questions that are part of the text.

## Section A2: Randomization of Red and White Balls

[Do not read: Show the scale depicting composition of balls in the urn (Figure 1) to the participant as you explain the below text to them.]

**Figure 1: Composition of red and white balls in the urn**



Your goal is to guess the number of red balls in the urn, in all five rounds. The number of red balls can be any number ranging from 4 to 16, as you can see on this figure.

- The lowest possible number of red balls is 4. [Do not read: Point to the urn in the figure containing 4 red balls.]

A4. Can there be less than 4 red balls in the urn, in any round?

[ ] a. Yes → No, the lowest number of red balls is 4.

[ ] b. No → Yes, this is correct.

- The highest possible number of red balls is 16. [Do not read: Point to the urn in the figure containing 16 red balls.]

A5. Can there be more than 16 red balls in the urn, in any round?

[ ] a. Yes → No, the highest number of red balls is 16.

[ ] b. No → Yes, this is correct.

- Any other number between 4 and 16 is possible. For example, there could be 6, 7, 11, or 12 red balls in the urn.

We have already used our computer to decide the true number of red balls in the urn in each round. Our computer picked a random number from 4 to 16 for all five rounds. The computer was equally

likely to choose any number from 4 up to 16. So, in each round, any number from 4 to 16 is equally likely to be the true number.

In each round, we will ask you to guess the number of red balls in the urn. When we do, we would like you to use this coin to point to the exact number you would like to guess, on this figure.

*[Do not read: Show the participant how to point to the exact number on Figure 1 with the coin.]*

Before we proceed, we will ask you some questions.

A6. What is the highest number of red balls that can possibly be in the urn?

a. 16 → Yes, that is correct.

b. Any other answer → No, there can be a maximum of 16 red balls in the urn.

A7. What is the lowest number of red balls that can possibly be in the urn?

a. 4 → Yes, that is correct.

b. Any other answer → No, there can be a minimum of 4 red balls in the urn.

A8. How do we decide the correct number of red balls in the urn? Is it you, me, or the computer?

a. The computer already decided. → Yes, that's correct.

b. Any other answer → No, the computer decides the correct number of red balls in the urn.

A9. Are some numbers of red balls more likely to occur than others?

a. Each number is equally likely to be chosen by the computer. → Yes, that's correct.

b. Any other answer → No, each number is equally likely to be chosen by the computer.

A10. Do you have any questions for us?

a. Yes → *[Do not read: Clarify any doubts or questions they may have.]*

b. No → *[Do not read: Proceed with the survey.]*

A10a. **[if  $\{a_{10}\} = 1$ ]** *[Do not read]* Specify their question: \_\_\_\_\_

Let's practice the task a few times. These rounds will not matter for your payment. They are just to help you better understand the task.

Before we begin the example rounds, let me clarify. In the final task, you will be matched with another participant. You will have one set of draws, while the other participant has another set of draws from the same urn. In the example rounds, you will have both sets of draws. Similarly, the participant in the other booth will also have both sets of draws in the example rounds.

*[Do not read: Take practice urn 1 that contains 16 red balls and 4 white balls. Use the scale.]*

This urn contains 20 balls. Your goal will be to guess how many of them are red. Please draw one ball from this urn. I will shuffle the balls in the urn before you draw from the urn.

A11. Color of the ball : \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 1 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A12. How many red balls do you think are in this urn? \_\_\_\_\_

Please draw an additional five balls from this urn. I will shuffle the balls in the urn before each of your draws.

A13. Order of the draws: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 5 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A14. How many red balls do you think are in this urn? Note that you should use the information from all six draws for your guess. \_\_\_\_\_

Do you have any questions for us so far?

*[Do not read: Clarify any doubts or questions they may have.]*

Let's now see how many red balls there are actually in the urn.

*[Do not read: Empty the urn in front of the participant and count the number of red balls.]*

As you can see, this urn contains mostly red balls. 16 of the balls are red and 4 of them are white.

Let me try to give you a few tips based on this example:

- **Tip 1:** Your draws help you make your guesses.
  - Suppose you draw more red balls than white balls. Then it makes sense to guess that there are more red balls in the urn. For example, if you draw four red balls and one white ball, then there are probably more red than white balls in the urn overall.
  - Suppose you draw more white balls. It makes sense to guess that there are more white balls in the urn.
  - Suppose you draw the same number of red and white balls. It makes sense to guess that the number of red and white balls are the same.
- **Tip 2:** The more balls you draw, the more confident you can be in your guess.
  - For example, suppose you draw only one ball. You do not learn much. Since there are many balls in the urn and you might draw a white ball by chance even if most balls are red.

- Suppose you draw many balls and most of the balls are red. Then, you can be fairly sure that most balls in the urn are red. Suppose you draw many balls and most of the balls are white. Then, you can be fairly sure that most balls in the urn are white.

A15. Can you tell us if you can learn more about the number of red balls from 1 draw or from 5 draws?

a. I will learn more when I draw 5 balls → Yes, that's correct.

b. I will learn more when I draw 1 ball → No, that's incorrect. You can learn more when you draw 5 balls.

c. I will learn the same regardless of how many balls I draw. → No, that's incorrect. You can learn more when you draw 5 balls.

- **Tip 3:** Shuffling the balls in the urn will be helpful. You will be able to learn more about the contents of the urn.

- In this activity, I will ask you to draw a ball from the urn. Once you have looked at the ball, put it back into the urn, and then draw another ball. When you draw the next ball without shuffling the balls properly, there is a higher chance that you will draw the same ball again. If you draw the same ball again, you are not learning anything new. Thus, it is important to shuffle the urn to learn more about the contents of the urn. In each round, I will shuffle the balls in the urn before each of your draws.

Could you please repeat each of these three tips in your own words? I want to be sure I have explained things clearly.

A16. *[Do not read: Select all points mentioned correctly by the participant.]*

a. The more red balls you draw from the urn, the higher the chance that the majority of the balls are red.

b. The more balls you draw, the more confident you can be in your guess.

c. Shuffling the balls in the urn can help you learn more.

*[Do not read: Repeat the particular tips that they missed or incorrectly explained just once.]*

Let's do another example.

*[Do not read: Take practice urn 2 that contains 9 red balls and 11 white balls. Use Figure 1 and the coin.]*

Please draw nine balls from this urn.

*[Do not read: Shuffle the balls in the urn, before each draw.]*

A17. Order of the draws: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 9 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A18. How many red balls do you think are in this urn? \_\_\_\_\_

Please draw an additional ball from this urn.

*[Do not read: Shuffle the balls in the urn, before each draw.]*

A19. Color of the draw: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 1 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A20. How many red balls do you think are in this urn? Note that you should use the information from all ten draws for your guess.

\_\_\_\_\_

Let's now see how many red balls there are in the urn.

*[Do not read: Empty the urn in front of the participant and count the number of red balls.]*

As you can see, the urn contains more white balls than red balls. There are 9 red balls in the urn and 11 white balls in the urn.

### **Section A3: Explanation of the Number of Draws**

As we said before, you and another participant have to guess the correct number of red balls in the urn. We will pay you according to how close your guess is to the true number of red balls in the urn.

You will make many draws and guesses for five different urns. Similarly, so will the other participant. Now let me tell you more about the number of draws.

The number of draws each of you get will vary between 1,5, and 9.

The number of draws you and the other participant will get might be different from each other.

The number of draws you and the other participant will get might also be different across sections.

A21. Is it possible that you get exactly 4 draws in any particular round?

a. Yes, I think I can get 4 draws in a round. → No, that is incorrect. You can get either 1, 5 or 9 draws in a round.

b. No, I don't think I can get 4 draws in a round. → Yes, that is correct. You can get either 1, 5 or 9 draws in a round.

A22. How do you think your number of draws will be across rounds? [*Do not read: Read all options and mark one*]

a. You will have the same number of draws across each round. → No, that is incorrect. You may have the same or different number of draws across each round.

b. You will have different number of draws across each round. → No, that is incorrect. You may have the same or different number of draws across each round.

c. You may have the same or different number of draws across each round. → Yes, that is correct.

A23. In any given round, do you think you and the other participant will have the same number of draws?

a. Yes, we will both have the same number of draws. → No, that is incorrect. We might or might not have the same number of draws.

b. No, we will not have the same number of draws. → No, that is incorrect. We might or might not have the same number of draws.

c. We might or might not have the same number of draws. → Yes, that is correct.

### **Section A4: Randomization of the Guess to be Implemented**

Now, let me tell you more about the guesses you and the other participant will make.

Some of these guesses will be on your own. Some others you will make together with the other participant. We will record all your choices on this sheet. [*Do not read: Show the participant the sheet in which you record the choices.*] The computer has chosen only one of these guesses to be the one that counts for your payment. Since you do not know which of those choices will be selected when making your choices, you should take each choice very seriously.

**Figure 2: Participant's guesses**

	Participant 1 Guess 1	Participant 2 Guess 1	Participant 1 Guess 2	Participant 2 Guess 2	Joint Guess
Round 1					
Round 2					
Round 3					
Round 4					
Round 5					

**Section A5. Payment Depending on Performance**

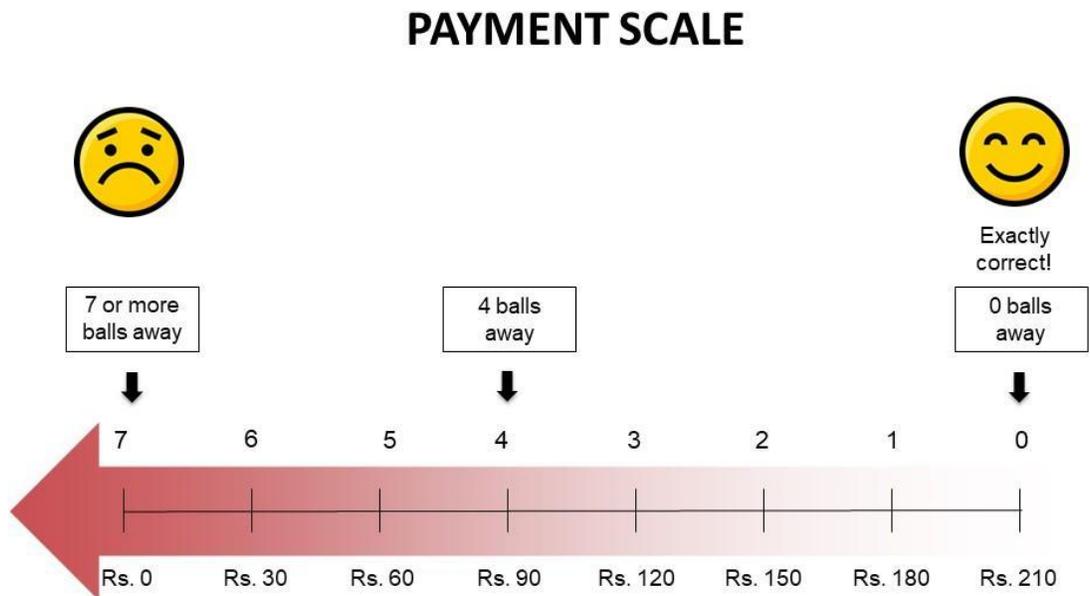
*[Do not read: Show them Figure 2 to explain the payment scheme.]*

Now, let me explain how the payment scheme works with this figure.

- Regardless of your choices, you will receive a flat payment of Rs. 150. Besides this flat payment, both you and the other participant have a chance to make some more money. How much more money you can earn depends on how close both your guesses are to the true number of balls in the urn. Each of you will be paid half of the total amount you earn separately.
- As we mentioned above, only one of your guesses will be chosen by the computer.
- If the chosen guess is exactly correct, then you and the other participant together could receive, besides the individual flat payment, at the most Rs. 210. So, your total payment could be at most Rs. 255. If your guess is very wrong, then you will make no extra money from the guess. You would only receive the individual flat payment of Rs. 150. If you are in the middle of these two extremes, you get an amount that is between Rs. 150 and Rs. 255.
- Along with this, you and the other participant will have an opportunity to earn an additional Rs. 50 each at the end of this activity.
- Let me give you an example. Suppose the true number of red balls is 5.

*[Do not read: Use Figure 2 to explain this entire section.]*

Figure 3: Payment Scale



- If your guess is 5, your guess is exactly correct. So, you and the other participant would receive the maximum of Rs. 210 from the guesses (and Rs. 255 in total individually).
- If your guess is 9, it is 4 balls away from the truth since 9 minus 5 is 4. You will lose Rs. 30 for each of the 4 balls. Therefore, you and the other participant would lose Rs. 120 and receive Rs. 90 from the guess (and Rs. 195 in total individually).
- If your guess is 12, it is 7 balls away from the truth since 12 minus 5 is 7. You will lose Rs. 30 each for the 7 balls. Therefore, you and the other participant would lose Rs. 210 and receive nothing from the guesses.
- If your guess is 16, it is 11 balls away from the truth since 16 minus 5 is 11. This guess is quite far away from the truth, so you would not receive any additional payments.

Do you have any questions about how the payment is decided?

Now, we will ask you a few questions before we proceed with the activity.

*[Do not read: Ask the participant to use Figure 2 for the following questions.]*

A24. Suppose that the true number is 6 red balls for the guess that counts. If you guess that there are 7 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 1 ball away from the true number. Rs. 180 → Yes, that's correct. [if  $\{a_{24}\} = 180$ ]

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 2.]* No, you will be paid Rs. 180. [if  $\{a_{24}\} \neq 180$ ]

A25. Suppose that the true number is 15 red balls for the guess that counts. If you guess that there are 4 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 11 balls away from the true number. Rs. 0 → Yes, that's correct. [if  $\{a_{25}\} = 0$ ]

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 2.]* No, you will be paid Rs. 0. [if  $\{a_{25}\} \neq 0$ ]

A26. Suppose that the true number is 12 red balls for the guess that counts. If you guess that there are 8 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 4 balls away from the true number. Rs. 90 → Yes, that's correct. [if  $\{a_{26}\} = 90$ ]

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 2.]* No, you will be paid Rs. 90. [if  $\{a_{26}\} \neq 90$ ]

## **Section A6: Overview of the Activity**

Before we begin the activity, let me now tell you about the structure of the activity:

- The number of draws for each of you will vary between 1, 5 and 9 over time. Each of you might get a different number of draws. We will inform you about this number in each round.
- Based on your draws, you will each make a few guesses — some on your own, some with the other participant.
- In certain rounds, you will participate with a female participant; in other rounds, you will participate with a male participant.

We are interested in learning how you decide. Thus, we will be present to observe how you make decisions. This procedure has nothing to do with what we think of the decisions you make. We follow it with all the participants.

Do you have any questions before we begin?

*[Do not read: Clarify any doubts or questions they may have.]*

**Comprehension scores:** *[In-built CTO Check to calculate their comprehension]*

**Randomization of which surveyor will continue the survey:**  $\{p2a\}$

*[Do not read:  $\{p2a\}$  will continue with the rest of the survey. The other surveyor will assist.]*

## **SECTION B: ROUNDS**

### **ROUND 1: DISCUSSION**

[if  $\{p42\}$  = “same gender”]

*[Do not read: Introduce the two participants to each other.]*

Here is the first urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is green in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p12\}$  starts first in this round. In this round, you will draw a few balls and guess the number of red balls in the urn; then  $\{p13\}$  will draw a few balls and guess. Following this, we will ask you to make a joint guess.

*[Do not read: Ask the  $\{p13\}$  to leave and talk to the  $\{p12\}$ .]*

#### **A: Participant 1 Individual Guess**

Before we start the activity, can you now please explain to me in your own words what we are asking you to do?

R1\_a. *[Do not read: Did the participant mention the following points correctly?]*

a. Draw balls

b. Guess number of red balls

*[Do not read: Repeat and correct points that are missing or incorrect.]*

This urn contains 20 balls. You can now draw  $\{p14\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p14\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p14\}$  times and note down the composition.]*

Q1. Order of red/white balls drawn: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly  $\{p14\}$  and display as field list.]

Q2. *[Do not read]* How many red balls did the  $\{p12\}$  draw? \_\_\_\_\_

Q3. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p13\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p12\}$  to wait and ask the  $\{p13\}$  to join. Once the  $\{p13\}$  joins, ask the  $\{p12\}$  to leave.]*

### **B. Participant 2 Individual Guess**

Before we start the activity, can you now please explain to me in your own words what we are asking you to do?

R1\_b. *[Do not read: Did the participant mention the following points correctly?]*

a. Draw balls

b. Guess number of red balls

*[Do not read: Repeat and correct points that are missing or incorrect.]*

This urn contains 20 balls and  $\{p12\}$  got a chance to draw some balls from it. Now it is your turn. You can draw  $\{p15\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p15\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p15\}$  times and note down the composition.]*

Q4. Order of red/white balls drawn: \_\_\_\_\_

[SurveyCTO check: Limit string length to  $\{p15\}$  and display as field list.]

Q5. How many red balls did the  $\{p13\}$  draw? \_\_\_\_\_

Q6. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p13\}$  to wait and ask the  $\{p12\}$  to join.]*

### **C. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

*[Do not read: Remain in the booth for the discussion.]*

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Our staying here has nothing to do with whether you made ‘good’ or ‘bad’ decisions in previous rounds. This task is designed to be difficult. Most participants find it hard to come up with a good answer. Don't worry about saying anything wrong in front of us. Just try to do your best.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

Q7a. *[Do not read: Discussion start time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

Q7b. *[Do not read: Discussion end time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

Q7c. *[Do not read]* Did they share information?

0. No

1. Yes

**[if  $\{q7c\} = 1$ ]**

Q7d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

Q7e. *[Do not read]* What information did the participant 1 share?

a. Number of draws

b. Color composition

c. Guess

Q7f. *[Do not read]* What information did the participant 2 share?

a. Number of draws

b. Color composition

c. Guess

Q7g. *[Do not read]* Who made the decision?

a. Participant 1

b. Participant 2

c. Both

Q7h. *[Do not read]* Notes on interaction: \_\_\_\_\_

Q8. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Q9. *[Do not read: Which participant moved the coin last on the scale?]*

a. Participant 1

b. Participant 2

c. Both

We will keep aside the urn now. We will show you the number of red balls in the urn, if this urn is chosen at the end.

*[Do not read: With the other surveyor, ask the participants the following questions simultaneously in separate booths.  $\{p12\}$  will remain in the same booth. Ask  $\{13\}$  to go to the other booth with the other surveyor.]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

Q10. What is the  $\{p_{12}\}$ 's updated guess? \_\_\_\_\_ [*Do not read: Have them move the coin to make their decision.*]

Q11. What is the  $\{p_{13}\}$ 's updated guess? \_\_\_\_\_ [*Do not read: Have them move the coin to make their decision.*]

We will show you the number of red balls in this urn if this round is chosen at the end to be the round that counts for your payment. Now, we will proceed to the next round.

## **ROUND 2: INDIVIDUAL**

Here is the second urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is orange in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p16\}$  starts first in this round. In this round, you will draw a few balls and guess, then your  $\{p17\}$  will draw a few balls and guess. You will not get to discuss and guess together in this round. We will also not share your guess with each other.

*[Do not read: Ask the  $\{p17\}$  to leave and talk to the  $\{p16\}$ .]*

### **A: Participant 1 Individual Guess**

This urn contains 20 balls. We will now do something slightly different than mentioned before. You can draw  $\{p18\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw each ball from the urn, have a look at it, and put it back into the urn. I will shuffle the balls in the urn before each of your draws.

R1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p18\}$  and display as field list.]

R2. *[Do not read]* How many red balls did the  $\{p16\}$  draw? \_\_\_\_

R3. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p16\}$  to wait and ask the  $\{p17\}$  to join. Once the  $\{p17\}$  joins, ask the  $\{p16\}$  to leave.]*

Thank you for your guess. It is now  $\{p17\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

### **B. Participant 2 Individual Guess**

This urn contains 20 balls. We will now do something slightly different than mentioned before. You can draw  $\{p19\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw each ball from the urn, have a look at it, and put it back into the urn. I will shuffle the balls in the urn before each of your draws.

R4. *[Do not read]* Order of red/white balls drawn: \_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p19\}$  and display as field list.]

R5. *[Do not read]* How many red balls did the  $\{p17\}$  draw? \_\_\_\_

R6. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

You can now draw  $\{p21\}$  more balls to learn more about the contents of the urn. Please draw  $\{p21\}$  balls in total.

R7. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p21\}$  and display as field list.]

R8. *[Do not read]* How many red balls did the  $\{p17\}$  draw? \_\_\_\_\_

R9. Now that you have had the chance to learn more about the content of the urn, can you tell us how many red balls you think are in the urn? [Updated guess] \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p16\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p17\}$  to wait and ask the  $\{p16\}$  to join. Once the  $\{p16\}$  joins, ask the  $\{p17\}$  to leave.]*

### **C. Participant 1 Updated Individual Guess**

You can now draw  $\{p20\}$  more balls to learn more about the contents of the urn. Please draw  $\{p20\}$  balls in total.

R10. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p20\}$  and display as a field list..]

R11. *[Do not read]* How many red balls did the  $\{p16\}$  draw? \_\_\_\_\_

R12. Now that you have had the chance to learn more about the content of the urn, can you tell us how many red balls you think are in the urn? [Updated guess] \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **ROUND 3: INFORMED OF PARTNER'S GUESS**

*[Do not read: Introduce the two participants to each other.]*

Here is the third urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is blue in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p22\}$  starts first in this round. In this round, you will draw a few balls and guess, then  $\{p23\}$  will draw a few balls and guess. We will share your guesses with each other. Once you learn the other participant's guess, you will make another guess. Following this, we will ask you to make a joint guess.

*[Do not read: Ask the  $\{p23\}$  to leave and talk to the  $\{p22\}$ .]*

#### **A: Participant 1 Individual Guess**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p24\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p24\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p24\}$  times and note down the composition.]*

S1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p24\}$  and display as field list.]

S2. *[Do not read]* How many red balls did the  $\{p22\}$  draw? \_\_\_\_\_

S3. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p23\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p22\}$  to wait and ask the  $\{p23\}$  to join. Once the  $\{p23\}$  joins, ask the  $\{p22\}$  to leave.]*

#### **B. Participant 2 Individual Guess**

This urn contains 20 balls and  $\{p22\}$  got a chance to draw some balls from it. Now it is your turn. Similar to the previous round, you can draw  $\{p25\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p25\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p25\}$  times.]*

S4. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p25\}$  and display as a field list.]

S5. *[Do not read]* How many red balls did the  $\{p23\}$  draw? \_\_\_\_

S6. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **C. Participant 2 Updated Individual Guess**

We will now share  $\{p22\}$ 's guess with you. Using this information and your own information, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p22\}$  drew  $\{p24\}$  balls from this urn and guessed that there are  $\{s3\}$  red balls in this urn.

S7a. Can you tell me how many balls you drew from this urn? \_\_\_\_

S7b. Can you tell me what you had guessed? \_\_\_\_

Now that you learned  $\{p22\}$ 's guess, how many red balls do you think there are in the urn? Please take your time to think about your choice.

S7. What is the  $\{p23\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p23\}$  to wait and ask the  $\{p22\}$  to join. Once the  $\{p22\}$  joins, ask the  $\{p23\}$  to leave.]*

### **D. Participant 1 Updated Individual Guess**

We will now share  $\{p23\}$ 's guess with you. Using this information and your own information, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p23\}$  drew  $\{p25\}$  balls from this urn and guessed that there are  $\{s6\}$  red balls in this urn.

S8a. Can you tell me how many balls you drew from this urn? \_\_\_\_

S8b. Can you tell me what you had guessed? \_\_\_\_

Now that you learned  $\{p23\}$ 's guess, how many red balls do you think there are in the urn? Please take your time to think about your choice.

S8. What is the  $\{p22\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p22\}$  to wait and ask the  $\{p23\}$  to join.]*

### **E. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

*[Do not read: Remain in the booth for the discussion.]*

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Our staying here has nothing to do with whether you made ‘good’ or ‘bad’ decisions in previous rounds. This task is designed to be difficult. Most participants find it hard to come up with a good answer. Don't worry about saying anything wrong in front of us. Just try to do your best.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

S9a. *[Do not read: Discussion start time: |\_\_|\_\_:|\_\_|\_\_| 24HR]*

S9b. *[Do not read: Discussion end time: |\_\_|\_\_:|\_\_|\_\_| 24HR]*

S9c. *[Do not read]* Did they share information?

0. No

1. Yes

**[if  $\{s9c\} = 1]$**

S9d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

S9e. *[Do not read]* What information did the participant 1 share?

a. Number of draws

b. Color composition

c. Guess

S9f. *[Do not read]* What information did the participant 2 share?

a. Number of draws

b. Color composition

c. Guess

S9g. *[Do not read]* Who made the decision?

a. Participant 1

b. Participant 2

c. Both

S9h. *[Do not read]* Notes on interaction: \_\_\_\_\_

S10. How many red balls do you think there are in the urn? \_\_\_\_ [*Do not read: Have them move the coin to make their decision*]

S11. [*Do not read: Which participant moved the coin last on the scale?*]

- a. Participant 1
- b. Participant 2
- c. Both

We will keep aside the urn now. We will show you the number of red balls in the urn, if this urn is chosen at the end.

*[Do not read: With the other surveyor, ask the participants the following questions simultaneously in separate booths. \$p22\$ will remain in the same booth. Ask \$p23\$ to go to the other booth with the other surveyor.]*

Both of you discussed and made a joint guess. You now have a chance to make another guess based on the information you learnt. We will not share your guess with the other participant and will note it down. This guess may be different from your previous guesses or could be the same. So based on all the information you learnt, how many red balls do you think are in this urn?

S12. What is the \$p22\$'s updated guess? \_\_\_\_\_ [*Do not read: Have them move the coin to make their decision.*]

S13. What is the \$p23\$'s updated guess? \_\_\_\_\_ [*Do not read: Have them move the coin to make their decision.*]

We will show you the number of red balls in the urn, if this is chosen at the end. Now, we will proceed to the next round.

#### **ROUND 4: INFORMED OF PARTNER'S DRAWS**

Here is the fourth urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is brown in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p26\}$  starts first in this round. In this round, you will draw a few balls and guess, then  $\{p27\}$  will draw a few balls and guess. After you have made your guesses, we will then share the draws you saw with the other participant. Then you will make another guess. Following this, we will ask you to make a joint guess.

*[Do not read: Ask the  $\{p27\}$  to leave and talk to the  $\{p26\}$ .]*

#### **A: Participant 1 Individual Guess**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p28\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p28\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

A1. Which of the following information will we be sharing with your  $\{p27\}$ ?

- 1. Your guess
- 2. Draws

*[Do not read: Ensure that the participant draws  $\{p28\}$  times and note down the composition.]*

T1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p28\}$  and display as a field list.]

T2. *[Do not read]* How many red balls did the  $\{p26\}$  draw? \_\_\_\_\_

T3. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p27\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p26\}$  to wait and ask the  $\{p27\}$  to join. Once the  $\{p27\}$  joins, ask the  $\{p26\}$  to leave.]*

#### **B. Participant 2 Individual Guess**

This urn contains 20 balls and  $\{p26\}$  got a chance to draw some balls from it. Now it is your turn. Similar to the previous round, you can draw  $\{p29\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p29\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

A2. Which of the following information will we be sharing with your  $\{p26\}$ ?

1. Your guess

2. Draws

*[Do not read: Ensure that the participant draws  $\{p29\}$  times and display as a field list.]*

T4. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p29\}$ ]

T5. *[Do not read]* How many red balls did the  $\{p27\}$  draw? \_\_\_\_\_

T6. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **C. Participant 2 Updated Individual Guess**

We will now share  $\{p26\}$ 's draws with you. Using this information and your own draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p26\}$  drew a total of  $\{p28\}$  balls from this urn, of which  $\{t2\}$  were red balls.

T7a. Can you tell me how many balls you drew from this urn? \_\_\_\_\_

T7b. Can you tell me how many red balls you drew from this urn? \_\_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

T7. What is the  $\{p27\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p27\}$  to wait and ask the  $\{p26\}$  to join. Once the  $\{p26\}$  joins, ask the  $\{p27\}$  to leave.]*

### **D. Participant 1 Updated Individual Guess**

We will now share  $\{p27\}$ 's information with you. Using this information and your own information, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p27\}$  drew a total of  $\{p29\}$  balls from this urn, of which  $\{t5\}$  were red balls.

T8a. Can you tell me how many balls you drew from this urn? \_\_\_\_

T8b. Can you tell me how many red balls you drew from this urn? \_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

T8. What is the  $\{p26\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p26\}$  to wait and ask the  $\{p27\}$  to join.]*

### **E. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

*[Do not read: Remain in the booth for the discussion.]*

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Our staying here has nothing to do with whether you made 'good' or 'bad' decisions in previous rounds. This task is designed to be difficult. Most participants find it hard to come up with a good answer. Don't worry about saying anything wrong in front of us. Just try to do your best.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

T9a. *[Do not read: Discussion start time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

T9b. *[Do not read: Discussion end time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

T9c. *[Do not read]* Did they share information?

0. No

1. Yes

**[if  $\{t9c\} = 1]$**

T9d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

T9e. *[Do not read]* What information did participant 1 share?

a. Number of draws

b. Color composition

c. Guess

T9f. *[Do not read]* What information did participant 2 share?

- a. Number of draws
- b. Color composition
- c. Guess

T9g. *[Do not read]* Who made the decision?

- a. Participant 1
- b. Participant 2
- c. Both

T9h. *[Do not read]* Notes on interaction: \_\_\_\_\_

T10. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision]*

T11. *[Do not read: Which participant moved the coin last on the scale?]*

- a. Participant 1
- b. Participant 2
- c. Both

We will keep aside the urn now. We will show you the number of red balls in the urn, if this urn is chosen at the end.

*[Do not read: With the other surveyor, ask the participants the following questions simultaneously in separate booths. \$p26\$ will remain in the same booth. Ask \$p27\$ to go to the other booth with the other surveyor.]*

Both of you discussed and made a joint guess. You now have a chance to make another guess based on the information you learnt. We will not share your guess with the other participant and will note it down. This guess may be different from your previous guesses or could be the same. So based on all the information you learnt, how many red balls do you think are in this urn?

T12. What is the \$p26\$'s updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

T14. What is the \$p27\$'s updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

We will show you the number of red balls in the urn, if this is chosen at the end. Now, we will proceed to the next round.

## **ROUND 5: DISCUSSION**

**[if  $\{p43\}$  = “opposite gender”]**

Here is the fifth urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is black in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p30\}$  starts first in this round. In this round, you will draw a few balls and guess the number of red balls in the urn; then  $\{p31\}$  will draw a few balls and guess. Following this, we will ask you to make a joint guess.

*[Do not read: Ask the  $\{p31\}$  to leave and talk to the  $\{p30\}$ ]*

### **A: Participant 1 Individual Guess**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p32\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p32\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p32\}$  times and note down the composition.]*

U1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p32\}$  and display as a field list.]

U2. *[Do not read]* How many red balls did the  $\{p30\}$  draw? \_\_\_\_\_

U3. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now your  $\{p31\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p30\}$  to wait and ask the  $\{p31\}$  to join. Once the  $\{p31\}$  joins, ask the  $\{p30\}$  to leave.]*

### **B. Participant 2 Individual Guess**

This urn contains 20 balls and  $\{p30\}$  got a chance to draw some balls from it. Now it is your turn. Similar to the previous round, you can draw  $\{p33\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p33\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p33\}$  times.]*

U4. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p33\}$ ]

U5. *[Do not read]* How many red balls did the  $\{p31\}$  draw? \_\_\_\_

U6. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p31\}$  to wait and ask the  $\{p30\}$  to join.]*

### **C. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Our staying here has nothing to do with whether you made ‘good’ or ‘bad’ decisions in previous rounds. This task is designed to be difficult. Most participants find it hard to come up with a good answer. Don't worry about saying anything wrong in front of us. Just try to do your best.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

U7a. *[Do not read: Discussion start time: |\_\_|\_\_:|\_\_|\_\_| 24HR]*

U7b. *[Do not read: Discussion end time: |\_\_|\_\_:|\_\_|\_\_| 24HR]*

U7c. *[Do not read]* Did they share information?

0. No

1. Yes

**[if  $\{u7c\} = 1]$**

U7d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

U7e. *[Do not read]* What information did participant 1 share?

a. Number of draws

b. Color composition

c. Guess

U7f. *[Do not read]* What information did participant 2 share?

a. Number of draws

b. Color composition

c. Guess

U7g. *[Do not read]* Who made the decision?

- a. Participant 1
- b. Participant 2
- c. Both

U7h. *[Do not read]* Notes on interaction: \_\_\_\_\_

U8. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

U9. *[Do not read: Which participant moves the coin on the scale?]*

- a. Participant 1
- b. Participant 2
- c. Both

We will keep aside the urn now. We will show you the number of red balls in the urn, if this urn is chosen at the end.

*[Do not read: With the other surveyor, ask the participants the following questions simultaneously in separate booths.  $\{p30\}$  will remain in the same booth. Ask  $\{p31\}$  to go to the other booth with the other surveyor.]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

U10. What is the  $\{p30\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

U11. What is the  $\{p31\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

We will show you the number of red balls in the urn. if this is chosen at the end. Now, we will proceed to the next round.

### **SECTION C: Beliefs about Competence**

*[Do not read: Talk to  $\{p30\}$ ]*

Now I would like to ask you a few questions about the game you have been playing today. We will not share your answers with  $\{p31\}$ .

V1. In general, who, amongst men and women, do you think will be better at this game, i.e. who is making more accurate choices?

- a. Women are better
- b. About the same
- c. Men are better

V2. Who, amongst you and  $\{p31\}$ , do you think is better at this game, i.e. who is making more accurate choices?

- a. Participant 1 is better
- b. About the same
- c. Participant 2 is better

V3. In one of the rounds, you participated with another participant and not  $\{p31\}$ . Who, amongst you and the other participant, do you think is better at this game, i.e. who is making more accurate choices?

- a. Participant 1 is better
- b. About the same
- c. Other participant is better

*[Do not read: Talk to  $\{p31\}$ .]*

So I would like to ask you a few questions about the game you have been playing today. We will not share your answers with  $\{p30\}$ .

V4. In general, who, amongst men and women, do you think will be better at this game, i.e. who is making more accurate choices?

- a. Women are better
- b. About the same
- c. Men are better

V5. Who, amongst you and  $\{p30\}$ , do you think is better at this game, i.e. who is making more accurate choices?

- a. Participant 1 is better
- b. About the same
- c. Participant 2 is better

V6. In one of the rounds, you participated with another participant and not  $\{p30\}$ . Who, amongst you and the other participant, do you think is better at this game, i.e. who is making more accurate choices?

- a. Participant 1 is better
- b. About the same

[ ] c. Other participant is better

[Do not read: Talk to {p31}.]

We're at the end of this activity. Before you can learn how much you and {p30} will be earning, we have a few more questions for you.

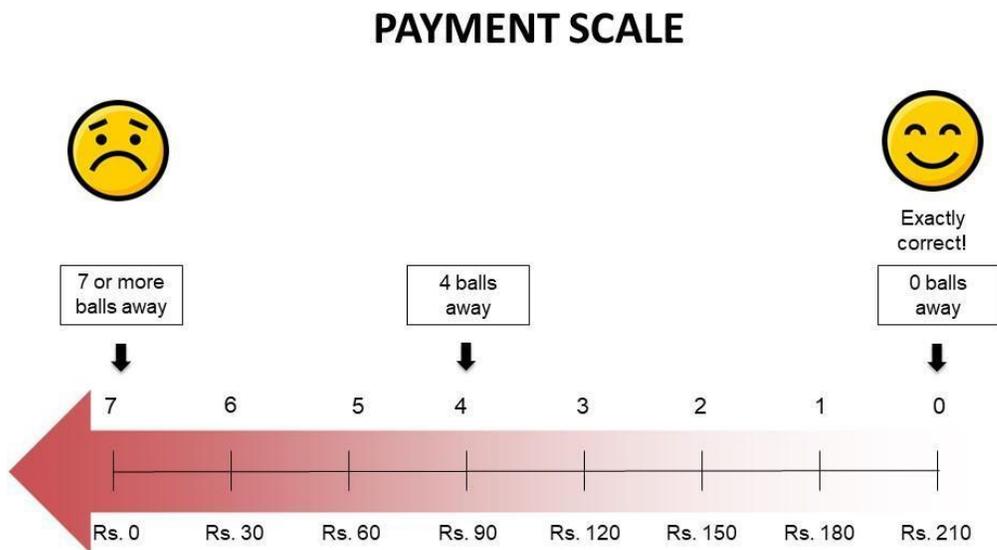
You, {p30}, and the other participant got to make many guesses after learning some information about the contents of the different urns. Before I proceed, I would like to assure you that anything you tell us will not be shared with any of the participants. I request you to answer the following questions. We will not disclose anything to {p30}.

Since, you, {p30}, and the other participant made multiple guesses on your own — how much would each of your guesses earn, on an average?

If your answer is within Rs. 30 of the average of the actual earnings, you can earn Rs. 50 that you will be paid separately. However, if your guess is more than Rs. 30 of the average of the actual earnings, you will not earn anything other than the amount disclosed in the envelope as discussed before. As mentioned before, one of the answers has already been chosen by the computer and you will be paid for that answer. So, think carefully before answering.

[Do not read: Use Figure 3 (the payment scale) for the following questions.]

**Figure 3: Payment Scale**



W1. How much will {p30}'s guess earn, on an average? Rs. \_\_\_\_\_

W2. How much will the other participant's guess earn, on an average? Rs. \_\_\_\_\_

W3. How much will your guess earn, on an average? Rs. \_\_\_\_\_

**[if  $\$ \{p38\}$  = “own guess”]**

W3a. [Calculate:  $\$ \{p31\}$ ’s average earnings \_\_\_\_\_ ]

**[if  $\$ \{w3a\} - 30 \leq \$ \{w3\} \leq \$ \{w3a\} + 30$  ]**

Your guess about your average earnings is within the Rs. 30 of the average of your actual earnings. You will earn an additional Rs. 50 at the end of this survey.

**[if  $\$ \{w3\} < \$ \{w3a\} - 30$  or  $\$ \{w3\} > \$ \{w3a\} + 30$ ]**

Your guess about your average earnings is not within the Rs. 30 of the average of your actual earnings. You will not earn an additional Rs. 50 at the end of this survey.

**[if  $\$ \{p38\}$  = “partner’s guess”]**

W3b. [Calculate:  $\$ \{p30\}$ ’s average earnings \_\_\_\_\_ ]

**[if  $\$ \{w3b\} - 30 \leq \$ \{w1\} \leq \$ \{w3b\} + 30$  ]**

Your guess about  $\$ \{p30\}$ ’s average earnings is within the Rs. 30 of the average of their actual earnings. You will earn an additional Rs. 50 at the end of this survey.

**[if  $\$ \{w1\} < \$ \{w3b\} - 30$  or  $\$ \{w1\} > \$ \{w3b\} + 30$ ]**

Your guess about  $\$ \{p30\}$ ’s average earnings is not within the Rs. 30 of the average of their actual earnings. You will not earn an additional Rs. 50 at the end of this survey.

**[if  $\$ \{p38\}$  = “other participant’s guess”]**

W3c. [Calculate: the other participant’s average earnings \_\_\_\_\_ ]

**[if  $\$ \{w3c\} - 30 \leq \$ \{w2\} \leq \$ \{w3c\} + 30$  ]**

Your guess about the other participant’s average earnings is within the Rs. 30 of the average of their actual earnings. You will earn an additional Rs. 50 at the end of this survey.

**[if  $\$ \{w2\} < \$ \{w3c\} - 30$  or  $\$ \{w2\} > \$ \{w3c\} + 30$ ]**

Your guess about the other participant’s average earnings is not within the Rs. 30 of the average of their actual earnings. You will not earn an additional Rs. 50 at the end of this survey.

*[Do not read: Talk to  $\$ \{p30\}$ .]*

We’re at the end of this activity. Before you can learn how much you and  $\$ \{p31\}$  will be earning, we have a few more questions for you.

You,  $\{p31\}$ , and the other participant got to make many guesses after learning some information about the contents of the different urns. Before I proceed, I would like to assure you that anything you tell us will not be shared with any of the participants. I request you to answer the following questions. We will not disclose anything to  $\{p31\}$ .

Since, you,  $\{p31\}$ , and the other participant made multiple guesses on your own — how much would each of your guesses earn, on an average?

If your answer is within Rs. 30 of the average of the actual earnings, you can earn Rs. 50 that you will be paid separately. However, if your guess is more than Rs. 30 of the average of the actual earnings, you will not earn anything other than the amount disclosed in the envelope as discussed before. As mentioned before, one of the answers has already been chosen by the computer and you will be paid for that answer. So, think carefully before answering.

*[Do not read: Use Figure 3 (the payment scale) for the following questions.]*

W4. How much will  $\{p31\}$ 's guess earn, on an average? Rs. \_\_\_\_\_

W5. How much will the other participant's guess earn, on an average? Rs. \_\_\_\_\_

W6. How much will your guess earn, on an average? Rs. \_\_\_\_\_

**[if  $\{p39\}$  = "own guess"]**

**[if  $\{w3b\} - 30 \leq \{w6\} \leq \{w3b\} + 30$  ]**

Your guess about your average earnings is within the Rs. 30 of the average of your actual earnings. You will earn an additional Rs. 50 at the end of this survey.

**[if  $\{w6\} < \{w3b\} - 30$  or  $\{w6\} > \{w3b\} + 30$ ]**

Your guess about your average earnings is not within the Rs. 30 of the average of your actual earnings. You will not earn an additional Rs. 50 at the end of this survey.

**[if  $\{p39\}$  = "partner's guess"]**

**[if  $\{w3a\} - 30 \leq \{w4\} \leq \{w3a\} + 30$  ]**

Your guess about  $\{p31\}$ 's average earnings is within the Rs. 30 of the average of their actual earnings. You will earn an additional Rs. 50 at the end of this survey.

**[if  $\{w4\} < \{w3a\} - 30$  or  $\{w4\} > \{w3a\} + 30$ ]**

Your guess about  $\{p31\}$ 's average earnings is not within the Rs. 30 of the average of their actual earnings. You will not earn an additional Rs. 50 at the end of this survey.

**[if  $\{p39\}$  = “other participant’s guess”]**

W6a. [Calculate: the other participant’s average earnings \_\_\_\_\_ ]

**[if  $\{w6a\} - 30 \leq \{w5\} \leq \{w6a\} + 30$  ]**

Your guess about the other participant’s average earnings is within the Rs. 30 of the average of their actual earnings. You will earn an additional Rs. 50 at the end of this survey.

**[if  $\{w5\} < \{w6a\} - 30$  or  $\{w5\} > \{w6a\} + 30$ ]**

Your guess about the other participant’s average earnings is not within the Rs. 30 of the average of their actual earnings. You will not earn an additional Rs. 50 at the end of this survey.

## SECTION E: FINAL SECTION

As mentioned before, the envelope in front of you contains the decision made by the computer. Please feel free to open it and have a look at the decision.

F1. *[Do not read: Who opened the envelope?]*

- a. Participant 1
- b. Participant 2
- c. Both

F1a. *[Do not read: What guess does the sheet say?]*

- a. Participant 1's first individual guess
- b. Participant 2's first individual guess
- c. Participant 1's second individual guess
- d. Participant 2's second individual guess
- e. Participant 1's post-discussion guess
- f. Participant 2's post-discussion guess
- g. Joint guess

F1b. *[Do not read: Which urn does the sheet say is the one that determines their payment?]*

- a. Round 1
- b. Round 2
- c. Round 3
- d. Round 4
- e. Round 5

*[Do not read: Show them the red balls in the urn.]*

**[if  $\$p4 = 1$ ]**

As you can see, there are  $\$p7$  red balls in the urn.

**[if  $\$p4 = 2$ ]**

As you can see, there are  $\$p8$  red balls in the urn.

**[if  $\$p4 = 3$ ]**

As you can see, there are  $\$p9$  red balls in the urn.

**[if  $\$p4 = 4$ ]**

As you can see, there are  $\$p10$  red balls in the urn.

**[if  $\$p4 = 5$ ]**

As you can see, there are  $\$p11$  red balls in the urn.

F2. *[Do not read]* Is the finalized guess a post-discussion guess?

- 0. No
- 1. Yes

**[if  $\$f2 = 1$ ]**

The finalized guess is a private guess, and as mentioned before we will not disclose the guess. However, we will explain the amount you will receive.

*[Do not read: With the help of the payment scale, explain their payment to them.]*

**[if  $S_{f2} = 0$ ]**

*[Do not read: Show them the grid with responses from each round and point to the one in the envelope. With the help of the payment scale, explain their payment to them.]*

**SECTION Z: CONCLUSION**

Thank you for your time!

Z1. Re-enter PID: \_\_\_\_\_

Z2. End Time: |\_|\_|:|\_|\_| 24HR

## C.2 Experimental Script for Experiment 2

## SECTION P: PREAMBLE

P1. PID: |\_|\_|\_|\_|  
[.>= 3000 and .<= 3400]

P1a. Participant 1 ID: |\_|\_|\_|\_|  
[.>= 1 and .<= 800]

P1b. Participant 2 ID: |\_|\_|\_|\_|  
[.>= 1 and .<= 800]

P1c. Pair:  
 1. Opposite-gender  
 2. Same-gender

P2. Interviewer

P2a. [Prefilled] Randomized interviewer (among present interviewers)

P3. Do you have the following things to proceed with the experiment?  
 1. Sheet with scale for guessing red balls in the urn along with a token  
 2. Sheet with payment mechanism  
 3. Sheet to explain randomization of final guess  
 4. A sample urn with red and white balls (10 each)  
 5. Tray with red and white balls (10 each)  
 6. Lid to cover the urn on the table  
 7. Two practice urns - (16,4) and (9,11)  
 8. Arrange all six urns for the activity at the back of the booth  
 9. Envelope with the guess that counts

P4. Date: |\_|\_|\_|\_| YYYYY/|\_|\_|MM/|\_|\_|DD

P5. Interview Start Time: |\_|\_|:|\_|\_| 24HR

General prefills:

P6. [Prefilled] Randomized order of rounds  
P7. [Prefilled] Number of red balls in the urn in Round 1.  
P8. [Prefilled] Number of red balls in the urn in Round 2.  
P9. [Prefilled] Number of red balls in the urn in Round 3.  
P10. [Prefilled] Number of red balls in the urn in Round 4.  
P11. [Prefilled] Number of red balls in the urn in Round 5.  
P12. [Prefilled] Number of red balls in the urn in Round 6.

Round 1 prefills:

P14. [Prefilled] Participant who goes first in Round 1.

- P15. [Prefilled] Participant who goes second in Round 1.
- P16. [Prefilled] Participant 1's number of draws from Round 1.
- P17. [Prefilled] Participant 2's number of draws from Round 1.

Round 2 prefills:

- P18. [Prefilled] Participant who goes first in Round 2.
- P19. [Prefilled] Participant who goes second in Round 2.
- P20. [Prefilled] Participant 1's number of draws from Round 2.
- P21. [Prefilled] Participant 2's number of draws from Round 2.
- P22. [Prefilled] Stakes in Round 2.

Round 3 prefills:

- P23. [Prefilled] Participant who goes first in Round 3.
- P24. [Prefilled] Participant who goes second in Round 3.
- P25. [Prefilled] Participant 1's number of draws from Round 3.
- P26. [Prefilled] Participant 2's number of draws from Round 3.
- P27. [Prefilled] Stakes in Round 3.

Round 4 prefills:

- P28. [Prefilled] Participant who goes first in Round 4.
- P29. [Prefilled] Participant who goes second in Round 4.
- P30. [Prefilled] Participant 1's number of draws from Round 4.
- P31. [Prefilled] Participant 2's number of draws from Round 4.
- P32. [Prefilled] Stakes in Round 4.

Round 5 prefills:

- P33. [Prefilled] Participant who goes first in Round 5.
- P34. [Prefilled] Participant who goes second in Round 5.
- P35. [Prefilled] Participant 1's number of draws from Round 5.
- P36. [Prefilled] Participant 2's number of draws from Round 5.
- P37. [Prefilled] Stakes in Round 5.

Round 6 prefills:

- P38. [Prefilled] Participant who goes first in Round 6.
- P39. [Prefilled] Participant who goes second in Round 6.
- P40. [Prefilled] Participant 1's number of draws in Round 6.
- P41. [Prefilled] Participant 2's number of draws in Round 6.
- P42. [Prefilled] Stakes in Round 6.

Finalized round and guess prefills:

- P43. [Prefilled] Randomized final round.
- P44. [Prefilled] Randomized final guess.

## SECTION A: INTRODUCTION

*[Do not read: Talk to participant 1 and ensure that the introduction for participant 2 starts simultaneously.]*

Thank you for coming today! My name is  $\$p2$ . Would you like something to drink before we start the task? May we offer you some water, or tea, or coffee?

Please turn off your mobile phone till the end of this task. We want to ensure that you are attentive throughout the task.

As discussed before, you and another participant will take part in a task in which you can earn some money. Please take this task seriously. Your choices directly affect how much you earn.

This study aims to contribute to the welfare of the people. So, your participation is important to us. Before you make each choice, think well. Please consider these choices to be like decisions you make in real life.

### **Section A1: General Overview**

We will now explain the activity to you. **Similarly, another surveyor is explaining this activity to another participant.** You and another participant will then participate together in a total of six rounds that are all similar. In each round, you will see an urn such as this one.

*[Do not read: Show the sample urn with a few red and white balls.]*

Each urn contains a total of 20 balls. Some of these balls are white and others are red.

*[Do not read: Show the participant a tray with some white balls and some red balls.]*

Now we will ask you some questions about this task.

A1. How many balls are inside each urn?

a. 20 → Yes, that is correct.

b. Any other answer → No, there are 20 balls inside each urn.

A2. What are the colors of these balls?

a. Red and white → Yes, that is correct.

b. Any other answer → No, the balls are red and white.

In each round, the number of red and white balls will be unknown to you. You will only know that in total there are 20 balls inside the urn.

Your task will be to guess how many of these balls are red. In each round, you can draw some balls from the urn to help you make this guess.

A3. Now, can you describe to me in your own words what we would like you to do in this task?

*[Do not read: Select all points mentioned correctly by the participants.]*

a. Draw a few balls from the urn.

b. Based on the draws, guess how many of the balls in the urn are red.

A3a. *[Do not read: Did the participant describe all steps of the task accurately?]*

a. Yes → Proceed with the survey.

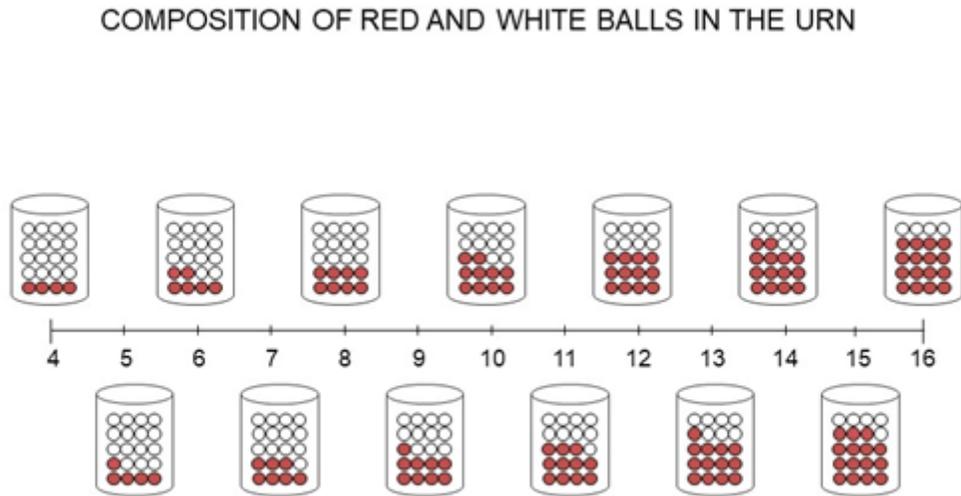
b. No, the participant missed or described incorrectly 1 of the 2 points. → Explain that particular point to the participant.

c. No, the participant missed or described both points incorrectly. → Explain Section A1 to the participant again. Ignore comprehension questions that are part of the text.

## Section A2: Randomization of Red and White Balls

[Do not read: Show the scale depicting composition of balls in the urn (Figure 1) to the participant as you explain the below text to them.]

**Figure 1: Composition of red and white balls in the urn**



Your goal is to guess the number of red balls in the urn, in all six rounds. The number of red balls can be any number ranging from 4 to 16, as you can see on this figure.

- The lowest possible number of red balls is 4. [Do not read: Point to the urn in the figure containing 4 red balls.]

A4. Can there be less than 4 red balls in the urn, in any round?

a. Yes → No, the lowest number of red balls is 4.

b. No → Yes, this is correct.

- The highest possible number of red balls is 16. [Do not read: Point to the urn in the figure containing 16 red balls.]

A5. Can there be more than 16 red balls in the urn, in any round?

a. Yes → No, the highest number of red balls is 16.

b. No → Yes, this is correct.

- Any other number between 4 and 16 is possible. For example, there could be 6, 7, 11, or 12 red balls in the urn.

We have already used our computer to decide the true number of red balls in the urn in each round. Our computer picked a random number from 4 to 16 for all six rounds. The computer was equally likely to choose any number from 4 up to 16. So, in each round, any number from 4 to 16 is equally likely to be the true number.

In each round, we will ask you to guess the number of red balls in the urn. When we do, we would like you to use this coin to point to the exact number you would like to guess, on this figure.

*[Do not read: Show the participant how to point to the exact number on Figure 1 with the coin.]*

Before we proceed, we will ask you some questions.

A6. What is the highest number of red balls that can possibly be in the urn?

a. 16 → Yes, that is correct.

b. Any other answer → No, there can be a maximum of 16 red balls in the urn.

A7. What is the lowest number of red balls that can possibly be in the urn?

a. 4 → Yes, that is correct.

b. Any other answer → No, there can be a minimum of 4 red balls in the urn.

A8. How do we decide the correct number of red balls in the urn? Is it you, me, or the computer?

a. The computer already decided. → Yes, that's correct.

b. Any other answer → No, the computer decides the correct number of red balls in the urn.

A9. Are some numbers of red balls more likely to occur than others?

a. Each number is equally likely to be chosen by the computer. → Yes, that's correct.

b. Any other answer → No, each number is equally likely to be chosen by the computer.

A10. Do you have any questions for us?

a. Yes → *[Do not read: Clarify any doubts or questions they may have.]*

b. No → *[Do not read: Proceed with the survey.]*

A10a. **[if  $\{a_{10}\} = 1$ ]** *[Do not read]* Specify their question: \_\_\_\_\_

Let's practice the task a few times. These rounds will not matter for your payment. They are just to help you better understand the task.

Before we begin the example rounds, let me clarify. In the final task, you will be matched with another participant. You will have one set of draws, while the other participant has another set of draws from the same urn. In the example rounds, you will have both sets of draws. Similarly, the participant in the other booth will also have both sets of draws in the example rounds.

*[Do not read: Take practice urn 1 that contains 16 red balls and 4 white balls. Use the scale.]*

This urn contains 20 balls. Your goal will be to guess how many of them are red. Please draw one ball from this urn. I will shuffle the balls in the urn before you draw from the urn.

A11. Color of the ball : \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 1 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A12. How many red balls do you think are in this urn? \_\_\_\_\_

Please draw an additional five balls from this urn. I will shuffle the balls in the urn before each of your draws.

A13. Order of the draws: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 5 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A14. How many red balls do you think are in this urn? Note that you should use the information from all six draws for your guess. \_\_\_\_\_

Do you have any questions for us so far?

*[Do not read: Clarify any doubts or questions they may have.]*

Let's now see how many red balls there are actually in the urn.

*[Do not read: Empty the urn in front of the participant and count the number of red balls.]*

As you can see, this urn contains mostly red balls. 16 of the balls are red and 4 of them are white.

Let me try to give you a few tips based on this example.

- **Tip 1:** Your draws help you make your guesses.
  - Suppose you draw more red balls than white balls. Then it makes sense to guess that there are more red balls in the urn. For example, if you draw four red balls and one white ball, then there are probably more red than white balls in the urn overall.
  - Suppose you draw more white balls. It makes sense to guess that there are more white balls in the urn.
  - Suppose you draw the same number of red and white balls. It makes sense to guess that the number of red and white balls are the same.
  
- **Tip 2:** The more balls you draw, the more confident you can be in your guess.

- For example, suppose you draw only one ball. You do not learn much. Since there are many balls in the urn and you might draw a white ball by chance even if most balls are red.
- Suppose you draw many balls and most of the balls are red. Then, you can be fairly sure that most balls in the urn are red. Suppose you draw many balls and most of the balls are white. Then, you can be fairly sure that most balls in the urn are white.

A15. Can you tell us if you can learn more about the number of red balls from 1 draw or from 5 draws?

a. I will learn more when I draw 5 balls → Yes, that's correct.

b. I will learn more when I draw 1 ball → No, that's incorrect. You can learn more when you draw 5 balls.

c. I will learn the same regardless of how many balls I draw. → No, that's incorrect. You can learn more when you draw 5 balls.

- **Tip 3:** Shuffling the balls in the urn will be helpful. You will be able to learn more about the contents of the urn.
  - In this activity, I will ask you to draw a ball from the urn. Once you have looked at the ball, put it back into the urn, and then draw another ball. When you draw the next ball without shuffling the balls properly, there is a higher chance that you will draw the same ball again. If you draw the same ball again, you are not learning anything new. Thus, it is important to shuffle the urn to learn more about the contents of the urn. In each round, I will shuffle the balls in the urn before each of your draws.

Could you please repeat each of these three tips in your own words? I want to be sure I have explained things clearly.

A16. *[Do not read: Select all points mentioned correctly by the participant.]*

a. The more red balls you draw from the urn, the higher the chance that the majority of the balls are red.

b. The more balls you draw, the more confident you can be in your guess.

c. Shuffling the balls in the urn can help you learn more.

*[Do not read: Repeat the particular tips that they missed or incorrectly explained just once. If they still don't understand the tips after the explanation, inform the monitors immediately.]*

Let's do another example.

*[Do not read: Take practice urn 2 that contains 9 red balls and 11 white balls. Use Figure 1 and the coin.]*

Please draw nine balls from this urn.

*[Do not read: Shuffle the balls in the urn, before each draw.]*

A17. Order of the draws: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 9 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A18. How many red balls do you think are in this urn? \_\_\_\_\_

Please draw an additional ball from this urn.

*[Do not read: Shuffle the balls in the urn, before each draw.]*

A19. Color of the draw: \_\_\_\_\_

[SurveyCTO check: Limit string length to exactly 1 and display as field list.]

*[Do not read: Ask them to use Figure 1 and the coin.]*

A20. How many red balls do you think are in this urn? Note that you should use the information from all ten draws for your guess. \_\_\_\_\_

Let's now see how many red balls there are in the urn.

*[Do not read: Empty the urn in front of the participant and count the number of red balls.]*

As you can see, the urn contains more white balls than red balls. There are 9 red balls in the urn and 11 white balls in the urn.

### **Section A3: Explanation of the Number of Draws**

As we said before, you and another participant have to guess the correct number of red balls in the urn. We will pay you according to how close your guess is to the true number of red balls in the urn.

You will make many draws and guesses for six different urns. Similarly, so will the other participant. Now let me tell you more about the number of draws.

The number of draws each of you get will vary between 1, 5, and 9.

The number of draws you and the other participant will get might be different from each other.

The number of draws you and the other participant will get might also be different across sections.

A21. Is it possible that you get exactly 4 draws in any particular round?

[ ] a. Yes, I think I can get 4 draws in a round. → No, that is incorrect. You can get either 1, 5 or 9 draws in a round.

b. No, I don't think I can get 4 draws in a round. → Yes, that is correct. You can get either 1, 5 or 9 draws in a round.

A22. How do you think your number of draws will be across rounds? *[Do not read: Read all options and mark one]*

a. You will have the same number of draws across each round. → No, that is incorrect. You may have the same or different number of draws across each round.

b. You will have a different number of draws across each round. → No, that is incorrect. You may have the same or different number of draws across each round.

c. You may have the same or different number of draws across each round. → Yes, that is correct.

A23. In any given round, do you think you and the other participant will have the same number of draws?

a. Yes, we will both have the same number of draws. → No, that is incorrect. We might or might not have the same number of draws.

b. No, we will not have the same number of draws. → No, that is incorrect. We might or might not have the same number of draws.

c. We might or might not have the same number of draws. → Yes, that is correct.

**Section A4: Randomization of the Guess to be Implemented**

Now, let me tell you more about the guesses you and the other participant will make.

	Participant 1 Guess 1	Participant 2 Guess 1	Participant 1 Guess 2	Participant 2 Guess 2
Round 1			-	-
Round 2				
Round 3				
Round 4			-	-
Round 5				
Round 6				

	<b>Joint Guess</b>	<b>Participan t 1 Guess 3</b>	<b>Participan t 2 Guess 3</b>
Round 1			
Round 2			
Round 3			
Round 4			
Round 5			

Some of these guesses will be on your own. Some others you will make together with the other participant. We will record all your choices on this sheet.

*[Do not read: Show the participant the sheet in which you record the choices.]*

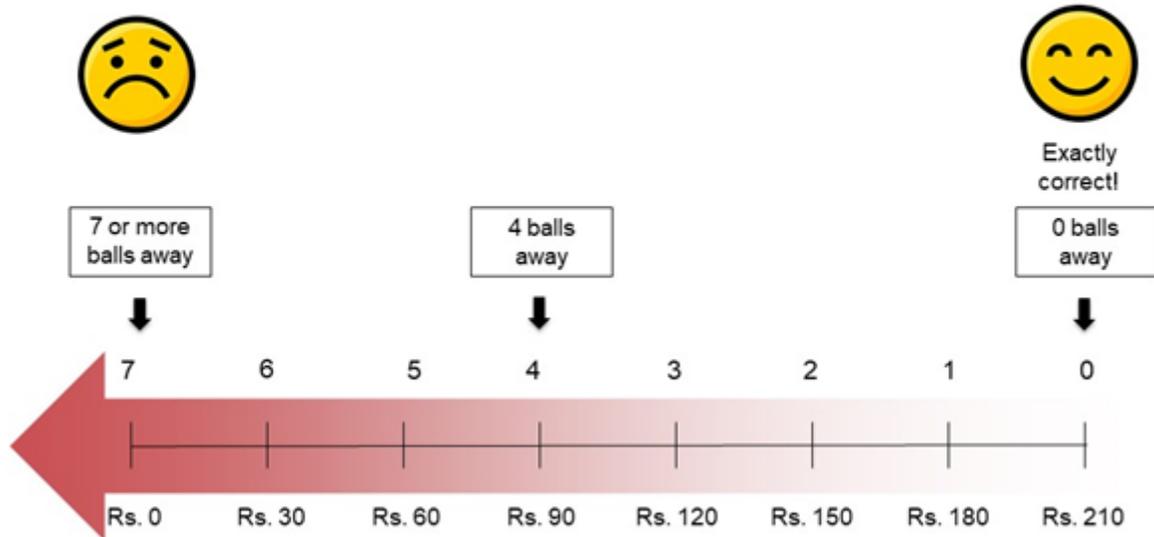
The computer has chosen only one of these guesses to be the one that counts for your payment. Since you do not know which of those choices will be selected when making your choices, you should take each choice very seriously.

**Section A5. Payment Depending on Performance**

*[Do not read: Show them Figure 2 and Figure 3 to explain the payment scheme.]*

**Figure 2: Payment Scale**

## PAYMENT SCALE



Now, let me explain how the payment scheme works with this figure.

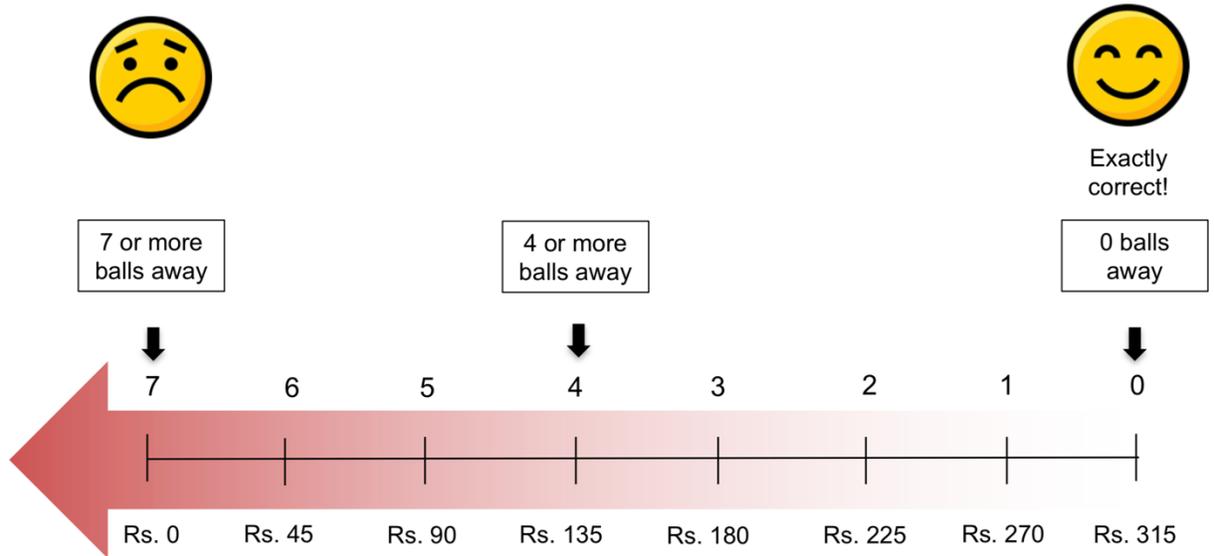
- Regardless of your choices, you will receive a flat payment of Rs. 150. Besides this flat payment, both you and the other participant have a chance to make some more money. How much more money you can earn depends on how close both your guesses are to the true number of balls in the urn. Each of you will be paid half of the total amount you earn separately.
- As we mentioned above, only one of your guesses will be chosen by the computer. The guess and the round chosen by the computer will be mentioned in this envelope [*Do not read: Show the participant the envelope containing the final guess for payment.*]
- If the chosen guess is exactly correct, then you and the other participant together could receive, besides the individual flat payment, an additional amount. This amount varies across 7 rounds. The computer has chosen the final guess and round, so you will be paid accordingly.
- In 4 out of the 7 rounds, you will receive at the most Rs. 210. So, your total payment could be at most Rs. 255. If your guess is very wrong, then you will make no extra money from the guess. You would only receive the individual flat payment of Rs. 150. If you are in the middle of these two extremes, you get an amount that is between Rs. 150 and Rs. 255.
- In 3 out of the 7 rounds, you will receive at the most Rs. 315. So, your total payment could be at most Rs. 308. Similarly if your guess is very wrong, then you will make no extra money from the

guess. You would only receive the individual flat payment of Rs. 150. If you are in the middle of these two extremes, you get an amount that is between Rs. 150 and Rs. 308.

- Let me give you two examples. Suppose the true number of red balls is 5.
- Suppose this is a round where you can earn at most Rs. 210.  
*[Do not read: Use Figure 2 to explain this entire section.]*
  - If your guess is 5, your guess is exactly correct. So, you and the other participant would receive the maximum of Rs. 210 from the guesses (and Rs. 255 in total individually).
  - If your guess is 9, it is 4 balls away from the truth since 9 minus 5 is 4. You will lose Rs. 30 for each of the 4 balls. Therefore, you and the other participant would lose Rs. 120 and receive Rs. 90 from the guess (and Rs. 195 in total individually).
  - If your guess is 12, it is 7 balls away from the truth since 12 minus 5 is 7. You will lose Rs. 30 each for the 7 balls. Therefore, you and the other participant would lose Rs. 210 and receive nothing from the guesses.
  - If your guess is 16, it is 11 balls away from the truth since 16 minus 5 is 11. This guess is quite far away from the truth, so you would not receive any additional payments.
- Suppose this is a round where you can earn at most Rs. 315.  
*[Do not read: Use Figure 3 to explain this entire section.]*

### **Figure 3: Payment Scale**

## PAYMENT SCALE



- If your guess is 5, your guess is exactly correct. So, you and the other participant would receive the maximum of Rs. 315 from the guesses (and Rs. 308 in total individually).
- If your guess is 9, it is 4 balls away from the truth since 9 minus 5 is 4. You will lose Rs. 45 for each of the 4 balls. Therefore, you and the other participant would lose Rs. 180 and receive Rs. 135 from the guess (and Rs. 218 in total individually).
- If your guess is 12, it is 7 balls away from the truth since 12 minus 5 is 7. You will lose Rs. 45 each for the 7 balls. Therefore, you and the other participant would lose Rs. 315 and receive nothing from the guesses.

Do you have any questions about how the payment is decided?

Now, we will ask you a few questions before we proceed with the activity.

*[Do not read: Ask the participant to use Figure 2 for the following questions.]*

Suppose the round that counts is the one where you can at most Rs. 210.

A24. Suppose that the true number is 6 red balls for the guess that counts. If you guess that there are 7 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

[ ] a. 1 ball away from the true number. Rs. 180 → Yes, that's correct. [if  $\$a_{24} = 180$ ]

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 2.]* No, you will be paid Rs. 180.  $[\text{if } \{a_{24}\} \neq 180]$

A25. Suppose that the true number is 15 red balls for the guess that counts. If you guess that there are 4 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 11 balls away from the true number. Rs. 0 → Yes, that's correct.  $[\text{if } \{a_{25}\} = 0]$

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 2.]* No, you will be paid Rs. 0.  $[\text{if } \{a_{25}\} \neq 0]$

A26. Suppose that the true number is 12 red balls for the guess that counts. If you guess that there are 8 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 4 balls away from the true number. Rs. 90 → Yes, that's correct.  $[\text{if } \{a_{26}\} = 90]$

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 2.]* No, you will be paid Rs. 90.  $[\text{if } \{a_{26}\} \neq 90]$

*[Do not read: Ask the participant to use Figure 3 for the following questions.]*

Suppose the round that counts is the one where you can at most Rs. 315.

A27. Suppose that the true number is 6 red balls for the guess that counts. If you guess that there are 7 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 1 ball away from the true number. Rs. 270 → Yes, that's correct.  $[\text{if } \{a_{27}\} = 270]$

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 3.]* No, you will be paid Rs. 270.  $[\text{if } \{a_{27}\} \neq 270]$

A28. Suppose that the true number is 15 red balls for the guess that counts. If you guess that there are 4 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 11 balls away from the true number. Rs. 0 → Yes, that's correct.  $[\text{if } \{a_{28}\} = 0]$

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 3.]* No, you will be paid Rs. 0.  $[\text{if } \{a_{28}\} \neq 0]$

A29. Suppose that the true number is 12 red balls for the guess that counts. If you guess that there are 8 red balls in the urn, how many balls are you away from the true number of red balls? How much would you and the other participant be paid from the guess?

a. 4 balls away from the true number. Rs. 135 → Yes, that's correct.  $[\text{if } \{a_{29}\} = 135]$

b. Any other answer → *[Do not read: Explain the payment mechanism again with the help of Figure 3.]* No, you will be paid Rs. 135.  $[\text{if } \{a_{29}\} \neq 135]$

### **Section A6: Overview of the Activity**

Before we begin the activity, let me tell you about the structure of the activity:

- The number of draws for each of you will vary between 1, 5 and 9 over time. Each of you might get a different number of draws. We will inform you about this number in each round.
- Based on your draws, you will each make a few guesses — some on your own, some with the other participant.
- In all the rounds, you will participate with a female/male participant.

We are interested in learning how you decide. Thus, we will be present to observe how you make decisions. This procedure has nothing to do with what we think of the decisions you make. We follow it with all the participants.

Do you have any questions before we begin?

*[Do not read: Clarify any doubts or questions they may have.]*

**Randomization of which surveyor will continue the survey:  $\{p2a\}$**

*[Do not read:  $\{p2a\}$  will continue with the rest of the survey. The other surveyor will assist.]*

## **SECTION B: ROUNDS**

### **ROUND 1: DISCUSSION**

*[Do not read: Introduce the two participants to each other.]*

Here is the first urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is green in color — for each round, we will use a different colored urn.

**[if  $\{p17a\}$  = “low”]**

*[Do not read: Use Figure 2 for this round.]*

The computer has decided that you can receive up to Rs. 210 in this round. Remember that you will lose Rs. 30 for each ball that is further away from the true number.

**[if  $\{p17a\}$  = “high”]**

*[Do not read: Use Figure 3 for this round.]*

The computer has decided that you can receive up to Rs. 315 in this round. Remember that you will lose Rs. 45 for each ball that is further away from the true number.

The computer has decided that  $\{p14\}$  starts first in this round. In this round, you will draw a few balls and guess the number of red balls in the urn; then  $\{p15\}$  will draw a few balls and guess. Following this, we will ask you to make a joint guess.

*[Do not read: Ask  $\{p15\}$  to leave and talk to  $\{p14\}$ .]*

#### **A: Participant 1 Individual Guess**

Before we start the activity, can you now please explain to me in your own words what we are asking you to do?

R1\_a. *[Do not read: Did the participant mention the following points correctly?]*

a. Draw balls

b. Guess number of red balls

*[Do not read: Repeat and correct points that are missing or incorrect.]*

This urn contains 20 balls. You can now draw  $\{p16\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back

into the urn. Please draw  $\{p16\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p16\}$  times and note down the composition.]*

Q1. Order of red/white balls drawn: \_\_\_\_

[SurveyCTO check: Limit string length to exactly  $\{p16\}$  and display as field list.]

Q2. *[Do not read]* How many red balls did the  $\{p14\}$  draw? \_\_\_\_

Q3. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p15\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask  $\{p14\}$  to wait and ask  $\{p15\}$  to join. Once the  $\{p15\}$  joins, ask the  $\{p14\}$  to leave.]*

## **B. Participant 2 Individual Guess**

Before we start the activity, can you now please explain to me in your own words what we are asking you to do?

R1\_b. *[Do not read: Did the participant mention the following points correctly?]*

a. Draw balls

b. Guess number of red balls

*[Do not read: Repeat and correct points that are missing or incorrect.]*

This urn contains 20 balls and  $\{p14\}$  got a chance to draw some balls from it. Now it is your turn. You can draw  $\{p15\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p15\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p17\}$  times and note down the composition.]*

Q4. Order of red/white balls drawn: \_\_\_\_\_

[SurveyCTO check: Limit string length to  $\{p17\}$  and display as field list.]

Q5. How many red balls did the  $\{p15\}$  draw? \_\_\_\_

Q6. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p15\}$  to wait and ask  $\{p14\}$  to join.]*

### **C. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

*[Do not read: Remain in the booth for the discussion.]*

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Our staying here has nothing to do with whether you made ‘good’ or ‘bad’ decisions in previous rounds. This task is designed to be difficult. Most participants find it hard to come up with a good answer. Don't worry about saying anything wrong in front of us. Just try to do your best.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

Q7a. *[Do not read: Discussion start time: |\_|\_|:|\_|\_| 24HR]*

Q7b. *[Do not read: Discussion end time: |\_|\_|:|\_|\_| 24HR]*

Q7c. *[Do not read]* Did they share information?

0. No

1. Yes

[if  $\{q7c\} = 1]$

Q7d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

Q7e. *[Do not read]* What information did participant 1 share?

a. Number of draws

b. Color composition

c. Guess

Q7f. *[Do not read]* What information did participant 2 share?

a. Number of draws

b. Color composition

c. Guess

Q7g. *[Do not read]* Who made the decision?

a. Participant 1

b. Participant 2

c. Both

Q7h. *[Do not read]* Notes on interaction: \_\_\_\_\_

Q8. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Q9. *[Do not read: Which participant moved the coin last on the scale?]*

a. Participant 1

b. Participant 2

c. Both

We will keep aside the urn now. We will show you the number of red balls in the urn, if this urn is chosen at the end.

*[Do not read: Ask  $\{p15\}$  to leave and talk to  $\{p14\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

Q10. What is the  $\{p14\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p14\}$  to leave and talk to  $\{p15\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

Q11. What is the  $\{p15\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p14\}$  to join.]*

We will show you the number of red balls in this urn if this round is chosen at the end to be the round that counts for your payment. Now, we will proceed to the next round.

## **ROUND 2: INFORMED OF PARTNER'S DRAWS**

Here is the second urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is brown in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p18\}$  starts first in this round. In this round, you will draw a few balls and guess, then  $\{p19\}$  will draw a few balls and guess. After you have made your guesses, we will then share the draws you saw with the other participant. Then you will make another guess. Following this, we will ask you to make a joint guess.

**[if  $\{p22\}$  = “low”]**

*[Do not read: Use Figure 2 for this round.]*

The computer has decided that you can receive up to Rs. 210 in this round. Remember that you will lose Rs. 30 for each ball that is further away from the true number.

**[if  $\{p22\}$  = “high”]**

*[Do not read: Use Figure 3 for this round.]*

The computer has decided that you can receive up to Rs. 315 in this round. Remember that you will lose Rs. 45 for each ball that is further away from the true number.

*[Do not read: Ask the  $\{p19\}$  to leave and talk to the  $\{p18\}$ .]*

### **A: Participant 1 Individual Guess**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p20\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p20\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

A1. Which of the following information will we be sharing with  $\{p19\}$ ?

1. Your guess

2. Draws

*[Do not read: Ensure that the participant draws  $\{p20\}$  times and note down the composition.]*

R1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p20\}$  and display as field list.]

R2. *[Do not read]* How many red balls did the  $\{p18\}$  draw? \_\_\_\_

R3. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p19\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p18\}$  to wait and ask the  $\{p19\}$  to join. Once the  $\{p19\}$  joins, ask the  $\{p18\}$  to leave.]*

### **B. Participant 2 Individual Guess**

This urn contains 20 balls and  $\{p18\}$  got a chance to draw some balls from it. Now it is your turn. Similar to the previous round, you can draw  $\{p21\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p21\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

A2. Which of the following information will we be sharing with  $\{p18\}$ ?

1. Your guess

2. Draws

*[Do not read: Ensure that the participant draws  $\{p21\}$  times.]*

R4. *[Do not read]* Order of red/white balls drawn: \_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p21\}$  and display as field list.]

R5. *[Do not read]* How many red balls did  $\{p19\}$  draw? \_\_\_\_

R6. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **C. Participant 2 Updated Individual Guess**

We will now share  $\{p18\}$ 's draws with you. Using this information and your own draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p18\}$  drew a total of  $\{p20\}$  balls from this urn, of which  $\{r2\}$  were red balls.

R7a. Can you tell me how many balls you drew from this urn? \_\_\_\_

R7b. Can you tell me how many red balls you drew from this urn? \_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

R7. What is the  $\{p19\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p19\}$  to wait and ask the  $\{p18\}$  to join. Once the  $\{p18\}$  joins, ask the  $\{p19\}$  to leave.]*

#### **D. Participant 1 Updated Individual Guess**

We will now share  $\{p19\}$ 's draws with you. Using this information and your own draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p19\}$  drew a total of  $\{p21\}$  balls from this urn, of which  $\{r5\}$  were red balls.

R8a. Can you tell me how many balls you drew from this urn? \_\_\_\_

R8b. Can you tell me how many red balls you drew from this urn? \_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

R8. What is the  $\{p18\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

#### **E. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

R9a. *[Do not read: Discussion start time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

R9b. *[Do not read: Discussion end time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

R9c. *[Do not read]* Did they share information?

[ ] 0. No

1. Yes

[if  $\{R9c\} = 1$ ]

R9d. *[Do not read]* Who shared information?

- a. Participant 1
- b. Participant 2
- c. Both

R9e. *[Do not read]* What information did participant 1 share?

- a. Number of draws
- b. Color composition
- c. Guess

R9f. *[Do not read]* What information did participant 2 share?

- a. Number of draws
- b. Color composition
- c. Guess

R9g. *[Do not read]* Who made the decision?

- a. Participant 1
- b. Participant 2
- c. Both

R9h. *[Do not read]* Notes on interaction: \_\_\_\_\_

R10. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

R11. *[Do not read: Which participant moved the coin last on the scale?]*

- a. Participant 1
- b. Participant 2
- c. Both

*[Do not read: Ask  $\{p19\}$  to leave and talk to  $\{p18\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

R12. What is the  $\{p18\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p18\}$  to leave and talk to  $\{p19\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

R13. What is the  $\{p19\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p18\}$  to join.]*

We will show you the number of red balls in this urn if this round is chosen at the end to be the round that counts for your payment. Now, we will proceed to the next round.

### **ROUND 3: DRAW-BY-DRAW**

Here is the third urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is blue in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p23\}$  starts first in this round. In this round, you will draw a few balls and guess, then  $\{p24\}$  will draw a few balls and guess. After you have made your guesses, we will then share the draws you saw with the other participant. Following this, we will ask you to make a joint guess.

**[if  $\{p27\}$  = “low”]**

*[Do not read: Use Figure 2 for this round.]*

The computer has decided that you can receive up to Rs. 210 in this round. Remember that you will lose Rs. 30 for each ball that is further away from the true number.

**[if  $\{p27\}$  = “high”]**

*[Do not read: Use Figure 3 for this round.]*

The computer has decided that you can receive up to Rs. 315 in this round. Remember that you will lose Rs. 45 for each ball that is further away from the true number.

*[Do not read: Ask the  $\{p24\}$  to leave and talk to the  $\{p23\}$ .]*

#### **A: Participant 1 Individual Guess**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p25\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p25\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

*[Do not read: Ensure that the participant draws  $\{p25\}$  times and note down the composition.]*

S1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p25\}$  and display as a field list.]

S2. *[Do not read]* How many red balls did the  $\{p23\}$  draw? \_\_\_\_

S3. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p24\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p23\}$  to wait and ask the  $\{p24\}$  to join. Once the  $\{p24\}$  joins, ask the  $\{p23\}$  to leave.]*

### **B. Participant 2 Individual Guess**

This urn contains 20 balls and  $\{p23\}$  got a chance to draw some balls from it. Now it is your turn. Similar to the previous round, you can draw  $\{p26\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p26\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

*[Do not read: Ensure that the participant draws  $\{p26\}$  times and display as a field list.]*

S4. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p26\}$ .]

S5. *[Do not read]* How many red balls did  $\{p24\}$  draw? \_\_\_\_\_

S6. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **C. Participant 2 Updated Individual Guess**

We will now share  $\{p23\}$ 's draws with you. Using this information and your own draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p23\}$  drew a total of  $\{p25\}$  balls from this urn. Now I will tell you the order of red/white balls drawn.

Order of red/white balls drawn is  $\{s3\}$ . *[SurveyCTO: The draws will be displayed as a field list.]*

S7a. Can you tell me how many balls you drew from this urn? \_\_\_\_\_

S7b. Can you tell me how many red balls you drew from this urn? \_\_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

S7. What is the  $\{p24\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p24\}$  to wait and ask the  $\{p23\}$  to join. Once the  $\{p23\}$  joins, ask the  $\{p24\}$  to leave.]*

#### **D. Participant 1 Updated Individual Guess**

We will now share  $\{p24\}$ 's draws with you. Using this information and your own draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

$\{p24\}$  drew a total of  $\{p26\}$  balls from this urn.

Order of red/white balls drawn is  $\{s5\}$ . *[SurveyCTO: The draws will be displayed as a field list.]*

S8a. Can you tell me how many balls you drew from this urn? \_\_\_\_

S8b. Can you tell me how many red balls you drew from this urn? \_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

S8. What is the  $\{p23\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

#### **E. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

S9a. *[Do not read: Discussion start time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

S9b. *[Do not read: Discussion end time: |\_\_|\_\_|:|\_\_|\_\_| 24HR]*

S9c. *[Do not read]* Did they share information?

0. No

1. Yes

[if  $\{S9c\} = 1]$

S9d. *[Do not read]* Who shared information?

- a. Participant 1
- b. Participant 2
- c. Both

S9e. *[Do not read]* What information did participant 1 share?

- a. Number of draws
- b. Color composition
- c. Guess

S9f. *[Do not read]* What information did participant 2 share?

- a. Number of draws
- b. Color composition
- c. Guess

S9g. *[Do not read]* Who made the decision?

- a. Participant 1
- b. Participant 2
- c. Both

S9h. *[Do not read]* Notes on interaction: \_\_\_\_\_

S10. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

S11. *[Do not read: Which participant moved the coin last on the scale?]*

- a. Participant 1
- b. Participant 2
- c. Both

We will keep aside the urn now. We will show you the number of red balls in the urn, if this urn is chosen at the end.

*[Do not read: Ask  $\{p24\}$  to leave and talk to  $\{p23\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

S12. What is the  $\{p23\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p23\}$  to leave and talk to  $\{p24\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

S13. What is the  $\{p_{24}\}$ 's updated guess? \_\_\_\_\_ [*Do not read: Have them move the coin to make their decision.*]

*[Do not read: Ask  $\{p_{23}\}$  to join.]*

We will show you the number of red balls in this urn if this round is chosen at the end to be the round that counts for your payment. Now, we will proceed to the next round.

#### **ROUND 4: NO FIRST GUESS**

Here is the fourth urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is green in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p28\}$  starts first in this round. In this round, you will draw a few balls and you will not guess, then  $\{p29\}$  will draw a few balls and we will then share the draws you saw with the other participant. Following this, we will ask you to make a joint guess.

**[if  $\{p32\}$  = “low”]**

*[Do not read: Use Figure 2 for this round.]*

The computer has decided that you can receive up to Rs. 210 in this round. Remember that you will lose Rs. 30 for each ball that is further away from the true number.

**[if  $\{p32\}$  = “high”]**

*[Do not read: Use Figure 3 for this round.]*

The computer has decided that you can receive up to Rs. 315 in this round. Remember that you will lose Rs. 45 for each ball that is further away from the true number.

*[Do not read: Ask the  $\{p29\}$  to leave and talk to the  $\{p28\}$ .]*

#### **A: Participant 1 Individual Draws**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p30\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p30\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant.

*[Do not read: Ensure that the participant draws  $\{p30\}$  times and note down the composition.]*

T1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p30\}$  and display as a field list.]

T2. *[Do not read]* How many red balls did the  $\{p28\}$  draw? \_\_\_\_

Thank you. It is now  $\{p29\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p28\}$  to wait and ask the  $\{p29\}$  to join. Once the  $\{p29\}$  joins, ask the  $\{p28\}$  to leave.]*

### **B. Participant 2 Individual Draws**

This urn contains 20 balls and  $\{p28\}$  got a chance to draw some balls from it. Now it is your turn. Similar to the previous round, you can draw  $\{p31\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p31\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant.

T3. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p31\}$  and display as a field list.]

T4. *[Do not read]* How many red balls did  $\{p29\}$  draw? \_\_\_\_\_

### **C. Participant 2 Individual Guess**

We will now share  $\{p28\}$ 's draws with you. Using this information and your own draws, we will ask you to make a guess.

$\{p28\}$  drew a total of  $\{p30\}$  balls from this urn, of which  $\{t2\}$  were red balls.

T5a. Can you tell me how many balls you drew from this urn? \_\_\_\_\_

T5b. Can you tell me how many red balls you drew from this urn? \_\_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

T5. What is the  $\{p29\}$ 's guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask the  $\{p29\}$  to wait and ask the  $\{p28\}$  to join. Once the  $\{p28\}$  joins, ask the  $\{p29\}$  to leave.]*

### **D. Participant 1 Individual Guess**

We will now share  $\{p29\}$ 's draws with you. Using this information and your own draws, we will ask you to make a guess.

$\{p29\}$  drew a total of  $\{p31\}$  balls from this urn, of which  $\{t4\}$  were red balls.

T6a. Can you tell me how many balls you drew from this urn? \_\_\_\_\_

T6b. Can you tell me how many red balls you drew from this urn? \_\_\_\_

How many red balls do you think there are in the urn? Please take your time to think about your choice.

T6. What is the  $\{p28\}$ 's guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **E. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

T9a. *[Do not read: Discussion start time: |\_|\_|:|\_|\_| 24HR]*

T9b. *[Do not read: Discussion end time: |\_|\_|:|\_|\_| 24HR]*

T9c. *[Do not read]* Did they share information?

0. No

1. Yes

[if  $\{T9c\} = 1$ ]

T9d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

T9e. *[Do not read]* What information did the participant 1 share?

a. Number of draws

b. Color composition

c. Guess

T9f. *[Do not read]* What information did the participant 2 share?

a. Number of draws

b. Color composition

c. Guess

T9g. *[Do not read]* Who made the decision?

a. Participant 1

b. Participant 2

c. Both

T9h. *[Do not read]* Notes on interaction: \_\_\_\_\_

T10. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

T11. *[Do not read: Which participant moved the coin last on the scale?]*

a. Participant 1

b. Participant 2

c. Both

*[Do not read: Ask  $\{p29\}$  to leave and talk to  $\{p28\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

T12. What is the  $\{p28\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p28\}$  to leave and talk to  $\{p29\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

T13. What is the  $\{p29\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p28\}$  to join.]*

We will show you the number of red balls in this urn if this round is chosen at the end to be the round that counts for your payment. Now, we will proceed to the next round.

## **ROUND 5: REVERSE ORDER**

Here is the fifth urn. Both of you will each make draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is orange in color — for each round, we will use a different colored urn.

The computer has decided that  $\{p33\}$  starts first in this round. In this round, you will draw a few balls and guess. After you have made your guess, we will share your draws with  $\{p34\}$  and then they will draw a few balls and guess. Following this, we will ask you to make a joint guess.

**[if  $\{p37\}$  = “low”]**

*[Do not read: Use Figure 2 for this round.]*

The computer has decided that you can receive up to Rs. 210 in this round. Remember that you will lose Rs. 30 for each ball that is further away from the true number.

**[if  $\{p37\}$  = “high”]**

*[Do not read: Use Figure 3 for this round.]*

The computer has decided that you can receive up to Rs. 315 in this round. Remember that you will lose Rs. 45 for each ball that is further away from the true number.

*[Do not read: Ask the  $\{p34\}$  to leave and talk to the  $\{p33\}$ .]*

### **A: Participant 1 Individual Guess**

This urn contains 20 balls. Similar to the previous round, you can draw  $\{p35\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p35\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed, we will share your draws with the other participant. However, we will not share your guess.

*[Do not read: Ensure that the participant draws  $\{p35\}$  times and note down the composition.]*

U1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p35\}$  and display as a field list.]

U2. *[Do not read]* How many red balls did the  $\{p33\}$  draw? \_\_\_\_\_

U3. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p34\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p33\}$  to wait and ask the  $\{p34\}$  to join. Once the  $\{p33\}$  joins, ask the  $\{p34\}$  to leave.]*

### **B. Participant 2 Individual Guess**

This urn contains 20 balls and  $\{p33\}$  got a chance to draw some balls from it. Now it is your turn.

We will now share  $\{p33\}$ 's draws with you. Using this information, we will ask you to make a guess.

$\{p33\}$  drew a total of  $\{p35\}$  balls from this urn, of which  $\{u2\}$  were red balls.

How many red balls do you think there are in the urn? Please take your time to think about your choice.

U4. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **C. Participant 2 Updated Individual Guess**

Similar to the previous round, you can draw  $\{p36\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p36\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

*[Do not read: Ensure that the participant draws  $\{p36\}$  times.]*

U5. *[Do not read]* Order of red/white balls drawn: \_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p36\}$  and display as field list.]

U6. *[Do not read]* How many red balls did  $\{p34\}$  draw? \_\_\_\_

U7. What is the  $\{p34\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

We will show you the number of red balls in the urn, if this is chosen at the end. Now, we will proceed to the next round.

### **E. Joint Guess**

Now, we would like you to decide together the number of red balls in the urn.

We are going to remain in the booth while you make your decision together. This is only because we would like to see your decision-making process.

Now both of you will make a decision together. Remember, this does not have to be the same as either of your previous guesses.

U8a. *[Do not read: Discussion start time: |\_|\_|:|\_|\_| 24HR]*

U8b. *[Do not read: Discussion end time: |\_|\_|:|\_|\_| 24HR]*

U8c. *[Do not read]* Did they share information?

0. No

1. Yes

[if  $\{U8c\} = 1$ ]

U8d. *[Do not read]* Who shared information?

a. Participant 1

b. Participant 2

c. Both

U8e. *[Do not read]* What information did participant 1 share?

a. Number of draws

b. Color composition

c. Guess

U8f. *[Do not read]* What information did participant 2 share?

a. Number of draws

b. Color composition

c. Guess

U8g. *[Do not read]* Who made the decision?

a. Participant 1

b. Participant 2

c. Both

U8h. *[Do not read]* Notes on interaction: \_\_\_\_\_

U9. How many red balls do you think there are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

U10. *[Do not read: Which participant moved the coin last on the scale?]*

a. Participant 1

b. Participant 2

[ ] c. Both

*[Do not read: Ask  $\{p34\}$  to leave and talk to  $\{p33\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

U11. What is the  $\{p33\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p33\}$  to leave and talk to  $\{p34\}$ .]*

Both of you discussed and made a joint guess. You each now have a chance to make another guess based on the information you have learnt. We will not share your guess with the other participant. This guess may be different from your previous guesses or it may be the same. Based on all the information you learnt, how many red balls do you think are in this urn?

U12. What is the  $\{p34\}$ 's updated guess? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p33\}$  to join.]*

We will show you the number of red balls in this urn if this round is chosen at the end to be the round that counts for your payment. Now, we will proceed to the next round.

## **ROUND 6: OBSERVE PARTNER'S DRAWS**

Here is the sixth urn. Both of you will each learn about draws from the same urn. Until the completion of this round, we will be using only this urn. As you can see, this urn is red in color — for each round, we will use a different colored urn.

In this round, you will both be present when you learn about draws from the urn. The computer has decided that  $\{p38\}$  starts first in this round and  $\{p39\}$  will be present in the booth while you learn about the draws from the urn. Both of you will make a guess. Following this,  $\{p39\}$  will learn about the draws and  $\{p38\}$  will be present, and then you will both make a guess.

**[if  $\{p42\}$  = “low”]**

*[Do not read: Use Figure 2 for this round.]*

The computer has decided that you can receive up to Rs. 210 in this round. Remember that you will lose Rs. 30 for each ball that is further away from the true number.

**[if  $\{p42\}$  = “high”]**

*[Do not read: Use Figure 3 for this round.]*

The computer has decided that you can receive up to Rs. 315 in this round. Remember that you will lose Rs. 45 for each ball that is further away from the true number.

*[Do not read: Ask the  $\{p38\}$  and  $\{p39\}$  to stay in the booth and talk to the  $\{p38\}$ .]*

### **A: Participant 1 Draws**

-  
This urn contains 20 balls. Similar to the previous round, you can draw  $\{p40\}$  balls from the urn to try and learn how many red balls and how many white balls are in the urn. Draw a ball from the urn, have a look at it, and put it back into the urn.

Please draw  $\{p40\}$  balls in total. I will shuffle the balls in the urn before each of your draws. As discussed,  $\{p39\}$  will be present while you draw balls from the urn.

*[Do not read: Ensure that the participant draws  $\{p40\}$  times and note down the composition.]*

X1. *[Do not read]* Order of red/white balls drawn: \_\_\_\_\_

[Constraint: Limit the number of characters that can be entered to  $\{p40\}$  and display as a field list.]

X2. *[Do not read]* How many red balls did the  $\{p38\}$  draw? \_\_\_\_\_

### **B: First Individual Guess**

*[Do not read: Ask  $\{p39\}$  to leave and talk to  $\{p38\}$ .]*

X3. How many red balls do you think are in the urn? \_\_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p39\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask  $\{p38\}$  to wait and ask the  $\{p39\}$  to join. Once  $\{p39\}$  joins, ask  $\{p38\}$  to leave.]*

X4. How many red balls do you think are in the urn? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

*[Do not read: Ask  $\{p38\}$  to join and talk to  $\{p39\}$ .]*

### **C: Participant 2 Draws**

This urn contains 20 balls and  $\{p38\}$  got a chance to learn about the balls in the urn. Now it is your turn. You can draw  $\{p41\}$  balls from the urn. Draw a ball from the urn, have a look at it, and put it back into the urn. Please draw  $\{p41\}$  balls in total. I will shuffle the balls in the urn before each of your draws.

As discussed  $\{p38\}$  will be present while you draw balls from the urn.

*[Do not read: Ensure that the participant draws  $\{p41\}$  times and note down the composition.]*

X5. Order of red/white balls drawn: \_\_\_\_\_  
[SurveyCTO check: Limit string length to  $\{p41\}$  and display as a field list.]

### **D: Individual Updated Guess**

*[Do not read: Ask  $\{p38\}$  to leave and talk to  $\{p39\}$ .]*

Using your draws and  $\{p38\}$ 's draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

How many red balls do you think there are in the urn? Please take your time to think about your choice.

X6. What is  $\{p39\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

Thank you for your guess. It is now  $\{p38\}$ 's turn. We will not change the contents of the urn and they will remain the same, while you are waiting.

*[Do not read: Ask the  $\{p39\}$  to wait and ask the  $\{p38\}$  to join. Once the  $\{p38\}$  joins, ask the  $\{p39\}$  to leave.]*

Using your draws and  $\{p39\}$ 's draws, we will ask you to make a new guess. This guess can be the same as your previous guess or it can be different from your previous guess. It is entirely your choice.

How many red balls do you think there are in the urn? Please take your time to think about your choice.

X6. What is  $\{p38\}$ 's updated guess? \_\_\_\_ *[Do not read: Have them move the coin to make their decision.]*

### **E. Participant 1 Memory Test**

-

*[Do not read: Talk to \$p38].*

X7a. Can you tell me how many balls you drew from this urn? \_\_\_\_\_

X7b. Can you tell me how many red balls you drew from this urn? \_\_\_\_\_

X7c. Can you tell me how many balls \$p39 drew from this urn? \_\_\_\_\_

X7d. Can you tell me how many red balls \$p39 drew from this urn? \_\_\_\_\_

Thank you! We will show you the number of red balls in the urn, if this is chosen at the end.

*[Do not read: Ask the \$p38 to wait and ask the \$p39 to join. Once the \$p39 joins, ask the \$p38 to leave.]*

### **F. Participant 2 Memory Test**

*[Do not read: Talk to \$p39].*

X8a. Can you tell me how many balls you drew from this urn? \_\_\_\_\_

X8b. Can you tell me how many red balls you drew from this urn? \_\_\_\_\_

X8c. Can you tell me how many balls \$p38 drew from this urn? \_\_\_\_\_

X8d. Can you tell me how many red balls \$p38 drew from this urn? \_\_\_\_\_

Thank you! We will show you the number of red balls in the urn, if this is chosen at the end. Now, we will proceed to the next round.

## SECTION E: FINAL SECTION

As mentioned before, the envelope in front of you contains the decision made by the computer. Please feel free to open it and have a look at the decision.

F1. *[Do not read: Who opened the envelope?]*

- a. Participant 1
- b. Participant 2
- c. Both

F1a. *[Do not read: What guess does the sheet say?]*

- a. Participant 1's first individual guess
- b. Participant 2's first individual guess
- c. Participant 1's second individual guess
- d. Participant 2's second individual guess
- g. Joint guess

F1b. *[Do not read: Which urn does the sheet say is the one that determines their payment?]*

- a. Round 1
- b. Round 2
- c. Round 3
- d. Round 4
- e. Round 5
- f. Round 6
- g. Round 7

*[Do not read: Show them the red balls in the urn.]*

**[if  $\{p4\} = 1$ ]**

As you can see, there are  $\{p7\}$  red balls in the urn.

**[if  $\{p4\} = 2$ ]**

As you can see, there are  $\{p8\}$  red balls in the urn.

**[if  $\{p4\} = 3$ ]**

As you can see, there are  $\{p9\}$  red balls in the urn.

**[if  $\{p4\} = 4$ ]**

As you can see, there are  $\{p10\}$  red balls in the urn.

**[if  $\{p4\} = 5$ ]**

As you can see, there are  $\{p11\}$  red balls in the urn.

**[if  $\{p4\} = 6$ ]**

As you can see, there are  $\{p12\}$  red balls in the urn.

**[if  $\{p4\} = 7$ ]**

As you can see, there are  $\{p13\}$  red balls in the urn.

F2. *[Do not read]* Is the finalized guess a post-discussion guess?

0. No

1. Yes

**[if  $\{f2\} = 1$ ]**

The finalized guess is a private guess, and as mentioned before we will not disclose the guess. However, we will explain the amount you will receive.

*[Do not read: With the help of the payment scale, explain their payment to them.]*

**[if  $\{f2\} = 0$ ]**

*[Do not read: Show them the grid with responses from each round and point to the one in the envelope. With the help of the payment scale, explain their payment to them.]*

## **SECTION Z: CONCLUSION**

Thank you for your time!

Z1. Re-enter PPID: \_\_\_\_\_

Z2. End Time: |\_|\_|\_|:|\_|\_| 24HR

### C.3 Experimental Script for Experiment 3

The online experiment with all treatments for Experiment 3 can be accessed at [https://harvard.az1.qualtrics.com/jfe/form/SV\\_6s2csra9eqCC5pk](https://harvard.az1.qualtrics.com/jfe/form/SV_6s2csra9eqCC5pk)

Below we reproduce the corresponding scripts.

Thanks for your time! In this survey, you will be playing a guessing game. The goal of the game is to guess the number of red marbles in a virtual jar. You will earn a larger bonus the closer your answer is to the truth (more details on bonuses later).

The jar contains 20 marbles, each of which is either **red** or **blue**. The jar has between 4 and 16 red marbles, and the rest are blue. The computer will randomly choose the exact number of red marbles, where every number between 4 and 16 was equally likely to be chosen.

Q11 To check you understood the previous instructions, we have a few comprehension questions for you.

First, what is the goal of the game you are playing today?

- To guess the number of red marbles in a virtual jar (1)
- To guess the number of any marbles in a virtual jar (2)
- To try to draw red marbles from a virtual jar (3)
- To solve some word problems (4)

Q14 How many marbles are in the jar total?

- 10 (1)
- 15 (2)
- 20 (3)
- 25 (4)

Q12 And how many **red** marbles could possibly be in the jar?

- Between 4 and 16 red marbles (1)
- Between 2 and 18 red marbles (2)
- Between 0 and 20 red marbles (3)
- Between 8 and 12 red marbles (4)

*Display This Question:*

*If instructions\_nonguessing\_partner = 0*

Q16 The goal of the game is to guess how many of the 20 marbles in the jar are **red**.

You will be playing this game with a partner (another participant on Prolific), who is taking this survey at about the same time as you. You and your partner are guessing about the **same jar which has the same number of red marbles in it**.

*Display This Question:*

*If instructions\_nonguessing\_partner = 1*

Q136 The goal of the game is to guess how many of the 20 marbles in the jar are **red**.

You will be playing this game with a partner (another participant on Prolific), who is taking this survey at about the same time as you. You are both using the **same jar which has the same number of red marbles in it**.

However, your partner will be working on a memory task, instead of guessing the number of red marbles.

---

*Display This Question:*

*If instuctions\_nonguessing\_partner = 0*

Q19

Who are you playing this game with?

- No one—I am playing the game by myself (1)
  - An imaginary partner (2)
  - A real partner who is taking the survey at around the same time as me (3)
- 

*Display This Question:*

*If instructions\_nonguessing\_partner = 1*

Q181

Who are you playing this game with?

- No one—I am playing the game by myself (1)
  - An imaginary partner (2)
  - A real partner who is taking the survey at around the same time as me and guessing the number of red balls (3)
  - A real partner who is taking the survey at around the same time as me but doing a different task than what I'm doing (4)
- 

*Display This Question:*

*If own\_first = 0*

Q87 To help you and your partner make a guess, you will each get to (virtually) draw marbles out of the jar one at a time.

After each draw, the marble is put back into the jar and the contents are shuffled before the next draw. This means it is possible that the same marble will be drawn multiple times.

You will first learn about your partner's draws and make a guess. Then you will learn about your own draws and make another guess.

We will randomly decide whether each of you will draw 1, 5, or 9 marbles from the jar, and you may get a different number of draws than your partner.

---

*Display This Question:*

*If own\_first = 1*

Q148 To help you and your partner make a guess, you will each get to (virtually) draw marbles out of the jar one at a time.

After each draw, the marble is put back into the jar and the contents are shuffled before the next draw. This means it is possible that the same marble will be drawn multiple times.

You will first learn about your draws and make a guess. Then you will learn about your partner's draws and make another guess.

We will randomly decide whether each of you will draw 1, 5, or 9 marbles from the jar, and you may get a different number of draws than your partner.

Q89 Which of the following statements is correct?

- After each draw, the marble is placed back in the jar and the contents get shuffled (1)
- After each draw, the marble is not put back in the jar (2)

Q49

Which of these statements is correct?

- My partner and I are drawing marbles from the same jar with the same number of red marbles (1)
- My partner and I are drawing marbles from different jars with different numbers of red marbles (2)
- I am drawing marbles from the jar, and my partner is not (3)
- My partner is drawing marbles from the jar, and I am not (4)

Q52 You will play this game  $\{e://Field/num\_games\_word\}$  times. Each time, the contents of the jar (that is, how many balls are red vs blue) will be re-randomized. In each game, it is equally likely that the number of red balls in the jar will be any number between 4 and 16.

Q54 Which of these statements is correct?

- I will only play this game once (1)
- I will play this game  $\{e://Field/num\_games\_numeral\}$  times, with the contents of the jar always being the same (2)
- I will play this game  $\{e://Field/num\_games\_numeral\}$  times, with the contents of the jar being re-randomized each time (3)

Q21 Great! Now we will explain how your bonus will be calculated.

At the end of the survey, we will randomly choose 1 guess from the  $\{e://Field/num\_games\_numeral\}$  games you played. Each guess is equally likely to be chosen.

You will then be rewarded with a larger bonus payment the closer your guess in that game was to the truth. In particular, you will earn  $\{\$e://Field/max\_bonus\}$  if your guess is exactly correct. Your bonus will be  $\{\$e://Field/increment\}$  less for each marble your guess is away from the truth (though it cannot

go below zero).

So, for example, if you guessed 10 red marbles, but actually there were 6 red marbles in the jar during that game, you would earn  $\$e://Field/example\_bonus$  as a bonus.

Q22 How can you affect the amount of your bonus payment?

- I can't—my answers do not affect my bonus (1)
- The longer I spend on the survey, the higher my bonus (2)
- For a randomly chosen guess, the closer I was to the true number of red marbles in the jar, the higher is my bonus (3)

Q24 Great! We are ready to start.

Please proceed to the next page to start Game 1.

**End of Block: Instructions**

---

**Start of Block: Non-guessing subjects - Instructions**

Q288 Thanks for your time! In this survey, you will be playing a memory game. The goal of the game is to recall the number of red marbles and the number of blue marbles that are drawn from a virtual jar. You will earn an additional bonus if your answer is correct (more details on bonuses later).

The jar contains 20 marbles total, each of which is either **red** or **blue**. The computer will randomly choose the exact number of red marbles.

Q290 To check you understood the previous instructions, we have a few comprehension questions for you.

First, what is the goal of the game you are playing today?

- To guess the number of red marbles in a virtual jar (1)
- To remember the number of red marbles and number of blue marbles drawn from a virtual jar (2)
- To try to draw red marbles from a virtual jar (3)
- To solve some word problems (4)

Q292 How many marbles are in the jar total?

- 10 (1)
- 15 (2)
- 20 (3)
- 25 (4)

---

Q297 The goal of the game is to remember how many of the drawn marbles are **red** and how many of the drawn marbles are **blue**.

You will be playing this game with a partner (another participant on Prolific), who is taking this survey at about the same time as you. You are both using the **same jar which has the same number of red marbles in it**. However, your partner will be doing a different task than you: they will be guessing the number of red marbles in the jar, whereas you will be remembering how many marbles of each color are drawn from it.

Q299

Who are you playing this game with?

- No one—I am playing the game by myself (1)
- An imaginary partner (2)
- A real partner who is taking the survey at around the same time as me (3)

Q302 You and your partner will each get to (virtually) draw marbles out of the jar one at a time.

After each draw, the marble is put back into the jar and the contents are shuffled before the next draw.

You will be asked to remember both your own draws from the jar and your partner's draws. We will randomly decide whether each of you will draw 1, 5, or 9 marbles from the jar, and you may get a different number of draws than your partner.

Q308 You will play this game  $\{e://Field/num\_games\_word\}$  times. Each time, the contents of the jar (that is, how many balls are red vs blue) will be re-randomized.

Q310 Which of these statements is correct?

- I will only play this game once (1)
- I will play this game  $\{e://Field/num\_games\_numeral\}$  times (3)

Q312 Great! Now we will explain how your bonus will be calculated.

At the end of the survey, the computer will randomly choose 1 of the  $\{e://Field/num\_games\_numeral\}$  games you played. Each game is equally likely to be chosen.

To receive the bonus, you must have correctly recalled **all** of the information from that game:

1. The number of red marbles you drew
2. The number of blue marbles you drew
3. The number of red marbles your partner drew
4. The number of blue marbles your partner drew

You will then be rewarded with \$1 if your answer in that game was correct. Otherwise, you will not receive a bonus.

Q314 How can you affect the amount of your bonus payment?

- I can't—my answers do not affect my bonus (1)
- The longer I spend on the survey, the higher my bonus (2)
- For a randomly chosen answer, if I correctly recalled the number of each colored marble for each player, I get a bonus (3)

Q316 Great! We are ready to start.

Please proceed to the next page to start Game 1.

End of Block: Non-guessing subjects - Instructions

---

Start of Block: Draw-sharing others' info

Q203 **Game**  $\{e://Field/game\}$

Your partner got to draw  $\{e://Field/other\_draws\}$  marble $\{e://Field/other\_s\}$  out of  $\{e://Field/jar\_language\}$  jar. They drew  $\{e://Field/total\_other\_red\}$  red marble $\{e://Field/other\_red\_s\}$  and  $\{e://Field/other\_draws - e://Field/total\_other\_red\}$  blue marble $\{e://Field/other\_blue\_s\}$ .

End of Block: Draw-sharing others' info

---

Start of Block: watch\_partner\_draw

Q205 **Game**  $\{e://Field/game\}$

On the next page, you can watch your **partner** draw  $\{e://Field/other\_draws\}$  marble $\{e://Field/other\_s\}$  out of  $\{e://Field/jar\_language\}$  jar.

Q204 **Game**  $\{e://Field/game\}$

**Partner's** marble

End of Block: watch\_partner\_draw

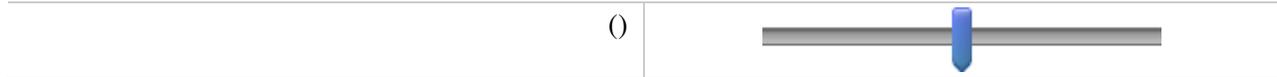
---

Start of Block: Game 1 First Guess

first\_guess1 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 1 First Guess

---

Start of Block: Own draws

Q208 **Game**  $\{e://Field/game\}$

On the next page, **you** will get to draw  $\{e://Field/own_draws\}$  marble $\{e://Field/own_s\}$  out of  $\{e://Field/jar\_language\}$  jar.

Q197 **Game**  $\{e://Field/game\}$

Draw **your** marble Put marble back

End of Block: Own draws

---

Start of Block: watch\_own\_draws

Q212 **Game**  $\{e://Field/game\}$

On the next page, you can watch as **your**  $\{e://Field/own_draws\}$  marble $\{e://Field/own_s\}$  $\{e://Field/own\_to\_be\}$  drawn out of  $\{e://Field/jar\_language\}$  jar.

Q214 **Game**  $\{e://Field/game\}$

**Your** marble

End of Block: watch\_own\_draws

---

Start of Block: Individual round—draw other's draws

Q228 **Game**  $\{e://Field/game\}$

On the next page, **you** will get to draw  $\{e://Field/other_draws\}$  more marble $\{e://Field/other_s\}$  out of  $\{e://Field/jar\_language\}$  jar.

Q230 **Game**  $\{e://Field/game\}$

Draw **your** marble Put marble back

End of Block: Individual round—draw other's draws

---

Start of Block: Game 1 Final Guess

final\_guess1 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 1 Final Guess

---

Start of Block: Non-guessing subject Game 1

Q318 How many red and blue marbles did you and your partner draw from this jar (i.e., during game  $\{e://Field/game\}$ )?

	Number (1)
Red marbles <b>that I</b> drew (1)	
Blue marbles <b>that I</b> drew (2)	
Red marbles <b>that my partner</b> drew (3)	
Blue marbles <b>that my partner</b> drew (4)	

End of Block: Non-guessing subject Game 1

---

Start of Block: Game Intro

Q201 Please proceed to the next page to start playing **Game**  $\{e://Field/game\}$ .

**Remember, the computer has chosen a new jar for this game and has re-randomized the color of the marbles inside.** The number of red marbles is equally likely to be any number between 4 and 16, with the rest of the marbles being blue.

End of Block: Game Intro

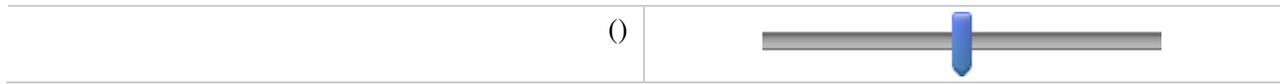
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Start of Block: Game 2 First Guess

first\_guess2 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



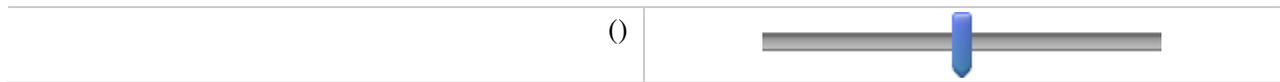
End of Block: Game 2 First Guess

Start of Block: Game 2 Final Guess

final\_guess2 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 2 Final Guess

Start of Block: Non-guessing subject Game 2

Q320 How many red and blue marbles did you and your partner draw from this jar (i.e., during game  $\{e://Field/game\}$ )?

	Number (1)

Red marbles <b>that I</b> drew (1)	
Blue marbles <b>that I</b> drew (2)	
Red marbles <b>that my partner</b> drew (3)	
Blue marbles <b>that my partner</b> drew (4)	

End of Block: Non-guessing subject Game 2

Start of Block: Game 3 First Guess

first\_guess3 Game  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 3 First Guess

Start of Block: Game 3 Final Guess

final\_guess3 Game  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 3 Final Guess

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Start of Block: Non-guessing subject Game 3

Q322 How many red and blue marbles did you and your partner draw from this jar (i.e., during game  $\{e://Field/game\}$ )?

	Number (1)
Red marbles <b>that I</b> drew (1)	
Blue marbles <b>that I</b> drew (2)	
Red marbles <b>that my partner</b> drew (3)	
Blue marbles <b>that my partner</b> drew (4)	

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End of Block: Non-guessing subject Game 3

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Start of Block: Game 4 First Guess

first\_guess4 Game  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16

0	
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End of Block: Game 4 First Guess

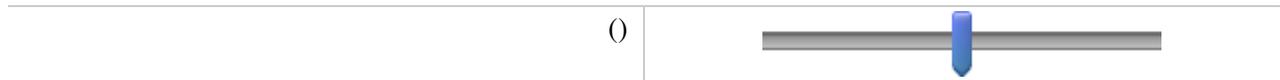
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Start of Block: Game 4 Final Guess

final\_guess4 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 4 Final Guess

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Start of Block: Non-guessing subject Game 4

Q324 How many red and blue marbles did you and your partner draw from this jar (i.e., during game  $\{e://Field/game\}$ )?

	Number (1)
Red marbles <b>that I</b> drew (1)	
Blue marbles <b>that I</b> drew (2)	
Red marbles <b>that my partner</b> drew (3)	
Blue marbles <b>that my partner</b> drew (4)	

End of Block: Non-guessing subject Game 4

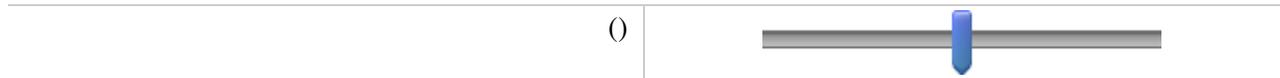
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Start of Block: Game 5 First Guess

first\_guess5 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 5 First Guess

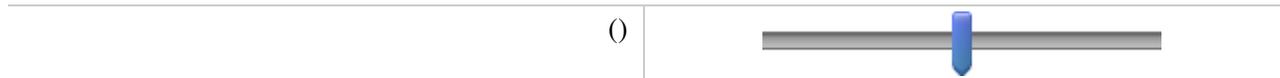
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Start of Block: Game 5 Final Guess

final\_guess5 **Game**  $\{e://Field/game\}$

How many red marbles do you think are in the jar? Remember there are 20 marbles total.

4 5 6 7 8 9 10 11 12 13 14 15 16



End of Block: Game 5 Final Guess

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Start of Block: Non-guessing subject Game 5

Q326 How many red and blue marbles did you and your partner draw from this jar (i.e., during game  $\{e://Field/game\}$ )?

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	Number (1)

Red marbles <b>that I</b> drew (1)	
Blue marbles <b>that I</b> drew (2)	
Red marbles <b>that my partner</b> drew (3)	
Blue marbles <b>that my partner</b> drew (4)	

End of Block: Non-guessing subject Game 5

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Start of Block: Memory Check

Q224 Think back to the final game you just played (Game 5). Do you remember how many red and blue marbles you and your partner drew from the jar?

		On a scale from 1 to 5, how sure are you about this?				
Number (1)	1: Very uncertain (1)	2 (2)	3 (3)	4 (4)	5: Very certain (5)	

Red marbles <b>that I</b> drew (1)		<input type="radio"/>				
Blue marbles <b>that I</b> drew (2)		<input type="radio"/>				
Red marbles <b>that my partner</b> drew (3)		<input type="radio"/>				
Blue marbles <b>that my partner</b> drew (4)		<input type="radio"/>				

End of Block: Memory Check

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Start of Block: Final Questions

Q29 Thanks for taking our survey! We have a few final questions for you before we calculate your bonus.

Q217 Did you feel like you were competing with your partner, like you were cooperating with them, or neither?

- Competing with them (1)
- Cooperating with them (2)
- Neither competing not cooperating (3)



*Display This Question:*

*If round\_type != 5*

Q219 Did you feel like you used the marbles you drew from the jar more than your partner's draws, to come up with your guesses about the contents of the jar?

- I used my own draws more (1)
- I treated my draws and my partner's draws the same (2)
- I used my partner's draws more (3)

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*Display This Question:*

*If round\_type != 5*

Q173 Tell us more about your answer to the previous question. Could you elaborate on how you thought about your partner's draws relative to your own?

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Page Break

Q151 Did you feel as though you were playing with a partner, or more like you were playing by yourself?

Though there is an actual partner who got the draws you saw, we wonder whether it feels this way to participants.

- I completely felt I was playing by myself (1)
- I mostly felt I was playing by myself (4)
- I somewhat felt I was playing with a partner (5)
- I mostly felt I was playing with a partner (6)
- I completely felt I was playing with a partner (7)

*Display This Question:*

*If Did you feel as though you were playing with a partner, or more like you were playing by yourself... = I completely felt I was playing by myself*

*Or Did you feel as though you were playing with a partner, or more like you were playing by yourself... = I mostly felt I was playing by myself*

JS

Q153 Could you describe more in your own words why you did not feel like you were playing with a partner?

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Q232 Were you writing down or recording the color of the marbles you or your partner drew?

- No, never (1)
- Yes, but only sometimes (2)
- Yes, mostly during the earlier games (4)
- Yes, mostly during the later games (5)
- Yes, every time (3)

Q149 Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

- Most people can be trusted (1)
- You need to be very careful in dealing with people (2)

Q31 Did you have any technical difficulties with the survey? Or any feedback you'd like to leave?

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Q33 How confusing did you find the instructions in the survey?

- Extremely confusing (1)
- Moderately confusing (2)
- Moderately clear (3)
- Extremely clear (4)

---

*Display This Question:*

*If How confusing did you find the instructions in the survey? = Extremely confusing*

*Or How confusing did you find the instructions in the survey? = Moderately confusing*

Q34 What did you find confusing? Your feedback is extremely helpful for us to improve the survey in the future.

---

Q38 What is your gender?

- Male (1)
- Female (2)
- Other (3)
- Prefer not to answer (4)

Q40 What is your highest level of education?

- Less than high school degree (1)
- High school degree or GED (2)
- Some college, but no degree (3)
- 2-year college degree (4)
- 4-year college degree (5)
- Any post-graduate degree (6)

Q217 How old are you?

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Q42 What is your native (first) language?

- English (1)
- Other (Please specify) (3) \_\_\_\_\_

Q46 Great, that's all the questions! Please click the arrow below to see your payment and end the survey.

**End of Block: Final Questions**

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**Start of Block: Reveal Payoffs**

*Display This Question:*

*If bonus  $\geq 0$*

*And round\_type  $\neq 5$*

Q47

The computer randomly chose  $\{e://Field/guess\_to\_score\_language\}$  to calculate your bonus.

You guessed that there were  $\{e://Field/answer\}$  red marbles in the jar that game. In fact, there were  $\{e://Field/truth\}$  red marbles, meaning that your guess was off by  $\{ \text{abs}( e://Field/answer - e://Field/truth ) \}$  marbles.

Your bonus payment is therefore  $\{\{e://Field/max\_bonus\} - \{e://Field/increment\} * \{ \text{abs}( e://Field/answer - e://Field/truth ) \} = \{e://Field/bonus\}$ . You should receive this bonus within the next few days.

---

*Display This Question:*

*If bonus  $< 0$*

*And round\_type  $\neq 5$*

Q196

The computer randomly chose  $\{e://Field/guess\_to\_score\_language\}$  to calculate your bonus.

Yyou guessed that there were  $\{e://Field/answer\}$  red marbles in the jar that game. In fact, there were  $\{e://Field/truth\}$  red marbles, meaning that your guess was off by  $\{ \text{abs}( e://Field/answer - e://Field/truth ) \}$  marbles.

Your bonus payment would therefore be  $\{\{e://Field/max\_bonus\} - \{e://Field/increment\} * \{ \text{abs}( e://Field/answer - e://Field/truth ) \} = \{e://Field/bonus\}$ . Since this is negative, you will just not receive a bonus.

**End of Block: Reveal Payoffs**

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**Start of Block: Non-guessing subject - Reveal Payoffs**

*Display This Question:*

*If bonus  $> 0$*

*And round\_type  $= 5$*

Q327

The computer randomly chose  $\{e://Field/guess\_to\_score\_language\}$  to calculate your bonus.

You answered that:

You drew  $\{e://Field/answer\_red\_own\}$  red marbles

You drew  $\{e://Field/answer\_blue\_own\}$  blue marbles

Your partner drew  $\{e://Field/answer\_red\_partner\}$  red marbles

Your partner drew  $\{e://Field/answer\_blue\_partner\}$  blue marbles

This was **correct!**

Your bonus payment is therefore \$1. You should receive this bonus within the next few days.

---

*Display This Question:*

*If  $bonus \leq 0$*

*And  $round\_type = 5$*

Q328 The computer randomly chose  $\{e://Field/guess\_to\_score\_language\}$  to calculate your bonus.

You answered that there were:

$\{e://Field/answer\_red\_own\}$  red marbles drawn from your jar

$\{e://Field/answer\_blue\_own\}$  blue marbles drawn from your jar

$\{e://Field/answer\_red\_partner\}$  red marbles drawn from your partner's jar

$\{e://Field/answer\_blue\_partner\}$  blue marbles drawn from your partner's jar

The actual answers were:

$\{e://Field/total\_own\_red\}$  red marbles drawn from your jar

$\{e://Field/own\_draws - e://Field/total\_own\_red\}$  blue marbles drawn from your jar

$\{e://Field/total\_other\_red\}$  red marbles drawn from your partner's jar

$\{e://Field/other\_draws - e://Field/total\_other\_red\}$  blue marbles drawn from your partner's jar

Since this was not correct, you will not receive a bonus.

**End of Block: Non-guessing subject - Reveal Payoffs**