

# Supplemental Materials for Online Publication

## A Proofs

**Proof of Proposition 1** Assume the DM observes an  $r$  signal from **Blue**. The posterior belief  $Pr(R|r, \mathbf{Blue})$  is computed via Bayes Rule:

$$Pr(R|r, \mathbf{Blue}) = \frac{Pr(R) \cdot Pr(r, \mathbf{Blue}|R)}{Pr(R) \cdot Pr(r, \mathbf{Blue}|R) + Pr(B) \cdot Pr(r, \mathbf{Blue}|B)} = \frac{(1-\pi)(1-\lambda_B)}{(1-\pi)(1-\lambda_B)} = 1$$

Thus, the signal is fully revealing and implies the highest possible expected payoff. It follows  $a^*(r, \mathbf{Blue}) = R$ . On the other hand, after observing  $b$  from **Blue**, action  $B$  yields a higher payoff than  $R$  provided that  $Pr(B|b, \mathbf{Blue}) > Pr(R|b, \mathbf{Blue})$ , that is provided

$$\frac{\pi}{\lambda_B + \pi(1-\lambda_B)} > \frac{\lambda_B(1-\pi)}{\lambda_B + \pi(1-\lambda_B)}$$

which can be restated as  $\lambda_B < \frac{\pi}{1-\pi}$  and the inequality always holds for  $\pi > 0.5$ .

**Proof of Proposition 2** When the DM observes a  $b$  signal from **Red**, it updates  $Pr(B|b, \mathbf{Red}) = \frac{(1-\lambda_R)\pi}{(1-\lambda_R)\pi} = 1$ . It immediately follows  $a^*(b, \mathbf{Red}) = B$ . When the DM observes  $r$  from **Red**, it is optimal to guess  $R$  whenever

$$Pr(R|r, \mathbf{Red}) > Pr(B|r, \mathbf{Red}) \iff \frac{1-\pi}{1-(1-\lambda_R)\pi} > \frac{\pi\lambda_R}{1-(1-\lambda_R)\pi}$$

which can be re-arranged as  $\lambda_R < \frac{1-\pi}{\pi}$ , as we wanted to show.

**Lemma 1 (Expected Utility from Blue Source)**  $\mathbb{E}[\mathbf{Blue}] = 1 - (1-\pi)\lambda_B \in [\pi, 1]$  is increasing in  $\pi$  and decreasing in

### Proof of Lemma 1

The DM's posterior belief that she is making the correct guess is  $Pr(\theta = R|r, \mathbf{Blue}) = 1$  following a contradictory signal; and  $Pr(\theta = B|b, \mathbf{Blue}) = \frac{\pi}{\pi+(1-\pi)\lambda_B}$  following a confirma-

tory signal. Weighing these posterior beliefs with the unconditional distribution of signals by this source, we get the following expected payoff:

$$\begin{aligned}
\mathbb{E}[\mathbf{Blue}] &= [\pi + (1 - \pi)\lambda_B] \frac{\pi}{\lambda_B + \pi(1 - \lambda_B)} + (1 - \pi)(1 - \lambda_B) \\
&= \frac{\pi^2 + (1 - \pi)\pi\lambda_B + (1 - \pi)(1 - \lambda_B)[\lambda_B + \pi(1 - \lambda_B)]}{\lambda_B + \pi(1 - \lambda_B)} \\
&= \frac{\pi^2 + (1 - \pi)[\pi\lambda_B + (1 - \lambda_B)\lambda_B + \pi(1 - \lambda_B)^2]}{\lambda_B + \pi(1 - \lambda_B)} \\
&= \frac{\pi^2 + (1 - \pi)\pi\lambda_B + (1 - \pi)(1 - \lambda_B)[\lambda_B + \pi(1 - \lambda_B)]}{\lambda_B + \pi(1 - \lambda_B)} \\
&= \frac{\pi[\lambda_B + \pi(1 - \lambda_B)] + (1 - \pi)(1 - \lambda_B)[\lambda_B + \pi(1 - \lambda_B)]}{\lambda_B + \pi(1 - \lambda_B)} \\
&= \pi + (1 - \pi)(1 - \lambda_B) \\
&= 1 - (1 - \pi)\lambda_B \in [\pi, 1]
\end{aligned}$$

$\mathbb{E}[\mathbf{Blue}]$  is clearly increasing in  $\pi$  and decreasing in  $\lambda_B$ .

**Lemma 2 (Expected Utility from Red Source)** *If  $\lambda_R \geq \frac{1-\pi}{\pi}$ ,  $\mathbb{E}[\mathbf{Red}] = \pi$ . If, instead,  $\lambda_R < \frac{1-\pi}{\pi}$ ,  $\mathbb{E}[\mathbf{Red}] = 1 - \pi\lambda_R \in [\pi, 1]$ , decreasing in  $\pi$  and in  $\lambda_R$ .*

**Proof of Lemma 2** When  $\lambda_R \geq \frac{1-\pi}{\pi}$ , signals from **Red** do not affect the optimal action and are, therefore, ignored. It follows that, in this case, the expected payoff is equal to

$$\begin{aligned}
\mathbb{E}[\mathbf{Red}] &= \pi(1 - \lambda_R) + [(1 - \pi) + \pi\lambda_R] \left[ \frac{\pi\lambda_R}{1 - (1 - \lambda_R)\pi} \right] \\
&= \mathbb{E}_{Pr(\theta|b, \mathbf{Red})}[u(\theta|b)] + \mathbb{E}_{Pr(\theta|r, \mathbf{Red})}[u(\theta|b)] \\
&= \mathbb{E}_{Pr(\theta|s, \mathbf{Red})}[\mathbb{E}[u(\theta|b)|s, \mathbf{Red}]] \\
&= \mathbb{E}_\pi[u(\theta|b)] \\
&= \pi
\end{aligned}$$

(Note that, when going from the third to the fourth line above, we applied the Law of Iterated Expectation.) On the other hand, when  $\lambda_R < \frac{1-\pi}{\pi}$ , the DM follows any signal

received from **Red**. In this case, her posterior belief that she is making the correct guess is  $Pr(\theta = R|r, \mathbf{Red}) = \frac{1-\pi}{\pi\lambda_R+(1-\pi)}$  following a contradictory signal; and  $Pr(\theta = B|b, \mathbf{Red}) = 1$  following a confirmatory signal. Weighing these posterior beliefs with the unconditional distribution of signals by this source, we get the following expected payoff:

$$\begin{aligned}
\mathbb{E}[\mathbf{Red}] &= \pi(1 - \lambda_R) + [(1 - \pi) + \pi\lambda_R] \left( \frac{1 - \pi}{1 - (1 - \lambda_R)\pi} \right) \\
&= \frac{\pi(1 - \lambda_R) - \pi^2(1 - \lambda_R)^2 + (1 - \pi)^2 + \pi(1 - \pi)\lambda_R}{1 - (1 - \lambda_R)\pi} \\
&= \frac{\pi(1 - \lambda_R)[1 - \pi(1 - \lambda_R)] + (1 - \pi)[1 - \pi + \pi\lambda_R]}{1 - (1 - \lambda_R)\pi} \\
&= \pi(1 - \lambda_R) + (1 - \pi) \\
&= 1 - \pi\lambda_R \in [1 - \pi, 1]
\end{aligned}$$

$\mathbb{E}[\mathbf{Red}]$  is clearly decreasing in  $\pi$  and in  $\lambda_R$ .

**Proof of Proposition 3** We distinguish two cases, namely  $\lambda_R < \frac{1-\pi}{\pi}$  and  $\lambda_R \geq \frac{1-\pi}{\pi}$ .

First consider the case where  $\lambda_R \geq \frac{1-\pi}{\pi}$ , i.e. signals from **Red** do not affect the optimal action. Using the previous results, the DM prefers **Blue** over **Red** as long as

$$\mathbb{E}[\mathbf{Blue}] \geq \mathbb{E}[\mathbf{Red}] \iff 1 - (1 - \pi)\lambda_B \geq \pi \iff 1 - \pi \geq (1 - \pi)\lambda_B \iff 1 \geq \lambda_B$$

which always holds by construction. Hence if  $\lambda_R \geq \frac{1-\pi}{\pi}$ , the DM chooses to access source **Blue**. Consider next the case  $\lambda_R < \frac{1-\pi}{\pi}$ . In this range signals from **Red** are informative and always followed. The DM prefers **Blue** over **Red** whenever

$$\mathbb{E}[\mathbf{Blue}] \geq \mathbb{E}[\mathbf{Red}] \iff 1 - (1 - \pi)\lambda_B \geq 1 - \pi\lambda_R \iff \lambda_R \geq \frac{1 - \pi}{\pi}\lambda_B$$

In particular, the DM accesses source **Red** when  $\lambda_R < \frac{1-\pi}{\pi}\lambda_B$  and **Blue** otherwise.

Putting together the two cases, the result in the proposition follows.

## B Information Processing

To shed light on subjects’ choice of information source and understand why they are prone to mistakes, we analyze the use subjects make of the information they obtain from experts. The model from Section 2 delivers these testable hypotheses:

H3 *It is always optimal to follow information from the source biased towards the prior.*

H4 *It is always optimal to follow confirming information from the source biased against the prior. Contradictory information from the source biased against the prior should be followed if the prior is mildly unbalanced and ignored if the prior is strongly unbalanced.*

Figure 3 shows the percentage of decisions which follow the advice from the chosen information source, disaggregated by treatment, information source and advice. We define confirmatory advice as a signal which aligns with the prior belief. Pooling together all treatments, subjects follow confirmatory advice 97.5% of the time when it comes from the Blue Expert and 96.8% of the time when it comes from the Red Expert. This is in line with our theoretical model: since both information sources are somehow informative, confirmatory advice increases the confidence in the state being the blue one, regardless of the information source it comes from.

**Finding 4.** *Subjects follow confirmatory advice optimally.*

On the other hand, subjects suffer from biases in interpreting contradictory advice. A Bayesian learner always follows contradictory advice from the Blue Expert (as this message perfectly reveals the state). Pooling together all treatments, subjects follow a red message by the Blue Expert 82.8% of the time. Moreover, a Bayesian learner follows contradictory advice from the Red Expert only when messages from this expert are sufficiently informative. Given our experimental parameters, this is the case only with mildly unbalanced priors. Subjects follow a red message by the Red Expert 69.9% of the time when the prior is mildly unbalanced (treatments E6 and S6), and 61.5% of the time when the prior is strongly

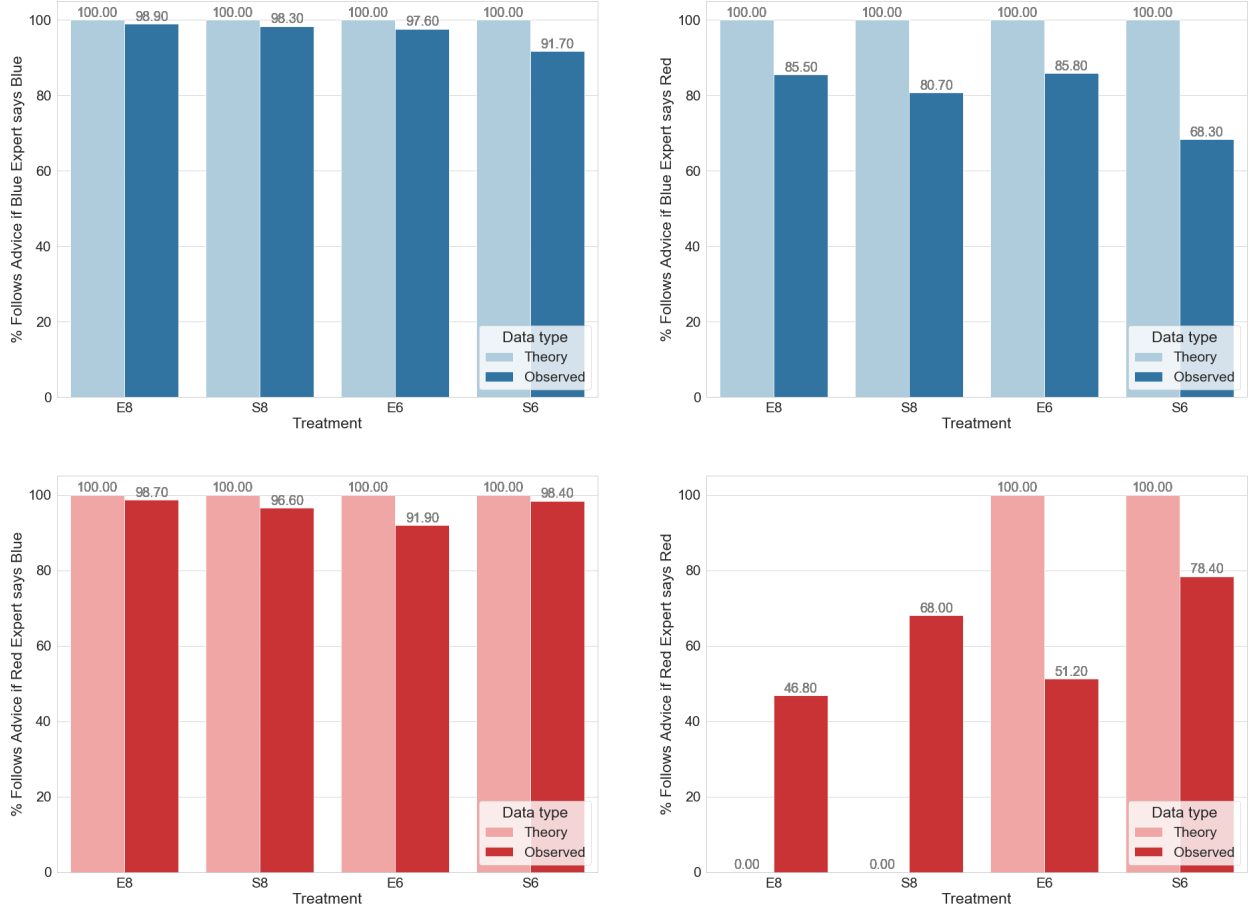


Figure 3: % Following Advice by Treatment and Information Set: Theory vs. Observed

unbalanced (treatments E8 and S8). The difference between the two pairs of treatments is not statistically significant ( $p\text{-value} = 0.378$ ). Keeping the prior belief constant, subjects are more likely to follow contradictory advice by the Red Expert when this information source is more reliable: this happens 51.1% of the time in treatment E6 against 78.4% of the time in treatment S6 ( $p\text{-value} = 0.019$ ); and 46.8% of the time in treatment E8 against 68% of the time in treatment S8 ( $p\text{-value} = 0.327$ ). Theoretically, contradictory advice by the Red Expert should affect the optimal guess only when the initial belief is not too strong (and for both levels of reliability).

**Finding 5.** *Subjects follow contradictory advice sub-optimally: they are excessively skeptic of contradictory advice by the expert biased towards the prior and excessively trusting of contradictory advice by the expert biased against the prior.*

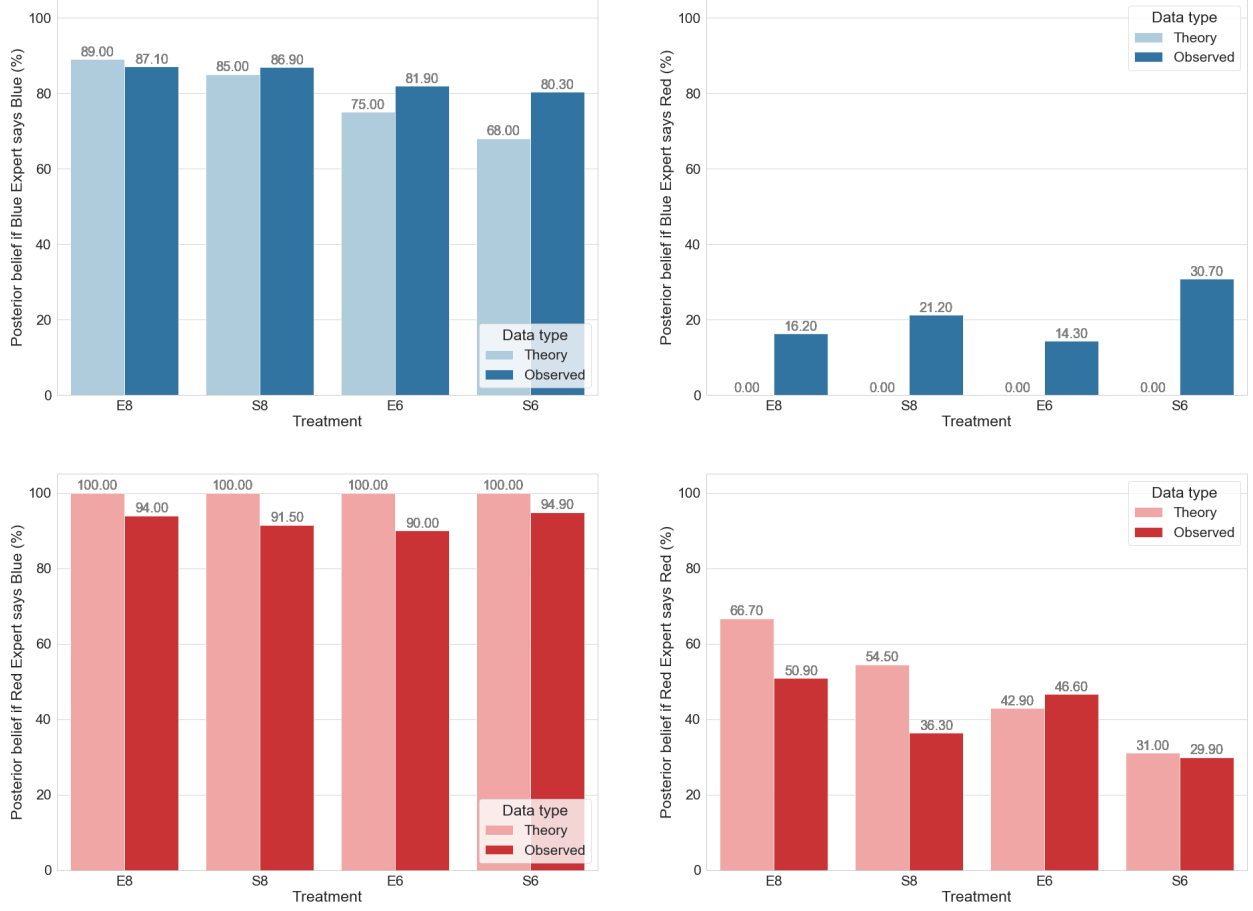


Figure 4: Posterior Beliefs by Treatment and Information Set: Theory vs. Observed Averages

To understand why subjects' decision-making after receiving a contradictory signal is different from the Bayesian benchmark, we analyze posterior beliefs about the state of the world. We follow Charness et al. (2021) and define *responsiveness to information* as follows:

$$\alpha_s = \frac{p_s - p_0}{p_s^{Bay} - p_0}$$

where  $p_s$  is the observed posterior belief,  $p_0$  is the prior beliefs, and  $p^{Bay}$  is the posterior belief held by a Bayesian learner with the same information. Note that  $\alpha_s = 1$  corresponds to Bayesian updating,  $\alpha_s < 1$  corresponds to under-responsiveness and  $\alpha_s > 1$  corresponds to over-responsiveness.

Figure 4 and Table 4 present descriptive statistics on participants' posterior beliefs about

Panel A: Treatment E8 (Equal Reliability, Strongly Unbalanced Prior)										
	N	Mean	Posterior Belief					Responsiveness ( $\alpha_s$ )		
			Q1	Q2	Q3	SD	Theory	Mean	Theory	p-value
B Says $b$	186	87.1	85	90	95	12.6	88.9	0.8	1	0.252
B Says $r$	186	16.2	0	0	25	29.3	0	0.8	1	0.000
R Says $b$	79	94.0	95	100	100	13.2	100	0.7	1	0.006
R Says $r$	79	50.9	25	62.5	75	29.7	66.7	2.2	1	0.011

Panel B: Treatment S8 (Skewed Reliability, Strongly Unbalanced Prior)										
	N	Mean	Posterior Belief					Responsiveness ( $\alpha_s$ )		
			Q1	Q2	Q3	SD	Theory	Mean	Theory	p-value
B Says $b$	57	86.9	85	90	90	14.1	85.1	1.3	1	0.408
B Says $r$	57	21.2	0	0	15	34.3	0	0.7	1	0.012
R Says $b$	178	91.5	90	100	100	19.3	100	0.6	1	0.000
R Says $r$	178	36.3	12.5	25	75	31.8	54.5	1.7	1	0.000

Panel C: Treatment E6 (Equal Reliability, Midly Unbalanced Prior)										
	N	Mean	Posterior Belief					Responsiveness ( $\alpha_s$ )		
			Q1	Q2	Q3	SD	Theory	Mean	Theory	p-value
B Says $b$	169	81.9	75	85	90	13.9	75.0	1.5	1	0.001
B Says $r$	169	14.3	0	0	10	28.1	0	0.8	1	0.001
R Says $b$	86	90.0	100	100	100	22.7	100	0.8	1	0.006
R Says $r$	86	46.6	25	40	75	28.7	42.9	0.8	1	0.409

Panel D: Treatment S6 (Skewed Reliability, Mildly Unbalanced Prior)										
	N	Mean	Posterior Belief					Responsiveness ( $\alpha_s$ )		
			Q1	Q2	Q3	SD	Theory	Mean	Theory	p-value
B Says $b$	60	80.3	75	85	97.5	21.3	68.2	2.5	1	0.002
B Says $r$	60	30.7	0	22.5	68.75	35.3	0	0.5	1	0.001
R Says $b$	190	94.9	100	100	100	12.0	100	0.9	1	0.001
R Says $r$	190	29.9	15	20	50	22.7	31.0	1.0	1	0.712

Table 4: Posterior Beliefs and Responsiveness to Information ( $\alpha_s$ ) by Treatment and Information Set. Notes: the unit of observation is a decision made by a subject in a round;  $\alpha_s < (>)1$  means under- (over-) responsiveness to information; p-values for comparison with theory are based on one-sample t-tests with standard errors clustered at the subject level.

the state of the world by treatment and information set. Table 4 shows also the average  $\alpha_s$  by treatment and information set. Subjects' posterior beliefs are statistically indistinguishable from those of Bayesian learners when advice is in line with the source bias and the prior is more favorable to this bias:  $\alpha_s$  is not statistically different from 1 when the prior is strongly unbalanced and the Blue Expert suggests blue; and when the prior is mildly unbalanced and the Red Expert suggests red. At the same time, subjects are too trusting of advice in line with an expert's bias when the prior is less favorable to this bias:  $\alpha_s > 1$  for blue messages by the Blue Expert when the prior is mildly unbalanced as well as for red messages by the Red Expert when the prior is strongly unbalanced. Finally, subjects are always too skeptic of advice in conflict with an expert's bias (which, in fact, perfectly reveals the state of the world):  $\alpha_s$  in these cases ranges from 0.5 to 0.9 and is statistically different from 1 for all treatments and information sets.

**Finding 6.** *Subjects are insufficiently responsive to information misaligned with a source bias and excessively responsive to information aligned with a source bias.*



## C Additional Tables

E8	Round 1	Round 2	Round 3	Round 4	Round 5
% Chooses Blue Expert	69.8	66.0	66.0	73.6	75.5
% Guesses Blue Ball if B Says $b$	97.3	100.0	97.1	100.0	100.0
% Guesses Blue Ball if B Says $r$	10.8	8.6	20.0	17.9	15.0
% Guesses Blue Ball if R Says $b$	100.0	94.4	100.0	100.0	100.0
% Guesses Blue Ball if R Says $r$	43.8	44.4	50.0	57.1	76.9
Mean Posterior if B Says $b$	87.1	88.7	85.5	87.4	86.5
Mean Posterior if B Says $r$	12.4	11.6	18.5	19.1	18.9
Mean Posterior if R Says $b$	92.3	90.7	97.2	96.8	93.1
Mean Posterior if R Says $r$	43.2	48.1	49.3	53.9	63.5
S8	Round 1	Round 2	Round 3	Round 4	Round 5
% Chooses Blue Expert	25.5	25.5	17.0	25.5	27.7
% Guesses Blue Ball if B Says $b$	100.0	100.0	100.0	100.0	92.3
% Guesses Blue Ball if B Says $r$	8.3	25.0	12.5	16.7	30.8
% Guesses Blue Ball if R Says $b$	94.3	100.0	97.4	97.1	94.1
% Guesses Blue Ball if R Says $r$	25.7	31.4	33.3	31.4	38.2
Mean Posterior if B Says $b$	90.0	84.0	89.7	88.8	83.1
Mean Posterior if B Says $r$	16.9	24.2	9.4	20.4	30.5
Mean Posterior if R Says $b$	90.3	94.2	92.2	92.0	88.5
Mean Posterior if R Says $r$	31.7	34.0	36.1	37.5	42.5
E6	Round 1	Round 2	Round 3	Round 4	Round 5
% Chooses Blue Expert	72.5	58.8	62.7	66.7	70.6
% Guesses Blue Ball if B Says $b$	100.0	100.0	96.9	94.1	97.2
% Guesses Blue Ball if B Says $r$	13.5	16.7	9.4	14.7	16.7
% Guesses Blue Ball if R Says $b$	100.0	90.5	84.2	88.2	100.0
% Guesses Blue Ball if R Says $r$	50.0	47.6	42.1	47.1	60.0
Mean Posterior if B Says $b$	84.4	83.5	81.6	79.3	80.6
Mean Posterior if B Says $r$	14.1	15.5	10.2	13.8	17.9
Mean Posterior if R Says $b$	98.2	89.4	81.3	86.8	98.0
Mean Posterior if R Says $r$	48.2	46.8	41.9	46.3	51.5
S6	Round 1	Round 2	Round 3	Round 4	Round 5
% Chooses Blue Expert	30.0	16.0	30.0	22.0	22.0
% Guesses Blue Ball if B Says $b$	86.7	100.0	86.7	90.9	100.0
% Guesses Blue Ball if B Says $r$	33.3	25.0	13.3	45.5	45.5
% Guesses Blue Ball if R Says $b$	100.0	92.9	100.0	100.0	100.0
% Guesses Blue Ball if R Says $r$	17.1	28.6	22.9	23.1	15.4
Mean Posterior if B Says $b$	76.9	91.6	78.8	75.1	83.8
Mean Posterior if B Says $r$	30.7	27.5	18.7	41.4	38.9
Mean Posterior if R Says $b$	96.0	90.8	95.4	96.4	96.2
Mean Posterior if R Says $r$	29.1	32.0	28.9	29.7	29.2

Table 5: Observed Outcomes by Treatment and Round, All Subjects

## D Experimental Instructions

Experimental instructions were delivered in the initial screens of the experiment. We report here the complete text and figures of these screens, including the comprehension quiz and the practice round. Page titles, as they appeared on the participants' screen, are in bold.

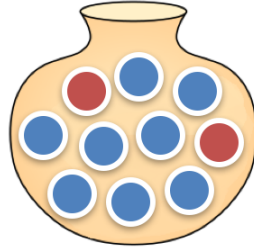
### **WELCOME**

Welcome! Thank you for agreeing to participate in this experiment! This is an experiment designed to study how people make decisions. The whole experiment will last around 10 minutes. In addition to your participation fee, you will be able to earn a **bonus payment**. Your bonus payment will depend on your choices so, please, **read the instructions carefully**. We will use only one decision to determine your bonus payment but all decisions are equally likely to be selected so **all choices matter**. The instructions describe how your choices affects your earnings. They are composed of three pages and include a comprehension question at the end of each page. Please, devote **at least 5 minutes** to the instructions and the comprehension questions. Once you start the experiment, we require your **complete and undistracted attention**. When you are ready to start, please click the button below.

### **INSTRUCTIONS/1: YOUR TASK**

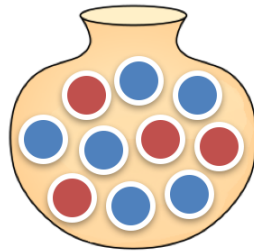
TREATMENT E8 AND S8 ONLY

In each round, there will be a jar, like the one you see below, containing 8 **BLUE** balls and 2 **RED** balls.



#### TREATMENT E6 AND S6 ONLY

In each round, there will be a jar, like the one you see below, containing 6 **BLUE** balls and 4 **RED** balls.



The computer will randomly draw ONE ball out of this jar. All balls are equally likely to be drawn. In each round, your task will be to guess whether the ball drawn by the computer is **BLUE** or **RED**. Before proceeding to the next page, please answer the comprehension question below: Without any additional information, what do you know about the ball drawn by the computer?

- It is more likely that it is **BLUE**
- It is more likely that it is **RED**
- It is just as likely that it is **BLUE** as that it is **RED**

Please spend at least 30 seconds on this page. Read the instructions carefully! :-)

**FEEDBACK/1**

**Correct!**

TREATMENT E8 AND S8 ONLY

The urn contains 10 balls in total: 8 **BLUE** balls and 2 **RED** balls. The computer draws one ball completely at random: each of the 10 balls is equally likely to be drawn. This means that there are 8 chances out of 10 that the computer draws a **BLUE** ball and 2 chances out of 10 that the computer draws a **RED** ball.

TREATMENT E6 AND S6 ONLY

The urn contains 10 balls in total: 6 **BLUE** balls and 4 **RED** balls. The computer draws one ball completely at random: each of the 10 balls is equally likely to be drawn. This means that there are 6 chances out of 10 that the computer draws a **BLUE** ball and 4 chances out of 10 that the computer draws a **RED** ball.

Thus, without any additional information, you know that the ball is more likely to be **BLUE**.

## INSTRUCTIONS/2: GETTING ADVICE

Before you make your assessment, you can consult an expert. The expert you consult might be informed about the ball drawn by the computer. If he knows the color, he will report it to you. If he does not know the color, he will simply report to you his preferred color. There are 10 **BLUE** experts and 10 **RED** experts. You choose whether you want to hear from a **BLUE** expert or a **RED** expert. If you choose a **BLUE** expert, the computer randomly picks one **BLUE** expert to advise you. If you choose to hear from a **RED** expert, the computer randomly picks one **RED** expert.

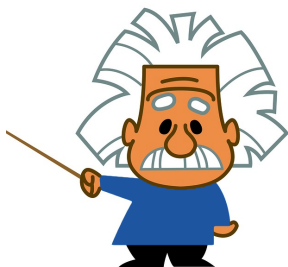
If you get advice from a **BLUE** expert:

## TREATMENT E6 AND E8 ONLY



- 5 out of 10 **BLUE** experts are informed about the ball
- If the ball is BLUE:
  - An informed BLUE expert says “The ball is BLUE”
  - An uninformed BLUE expert says “The ball is BLUE”
- If the ball is RED:
  - An informed BLUE expert says “The ball is RED”
  - An uninformed BLUE expert says “The ball is BLUE”

## TREATMENT S6 AND S8 ONLY



- 3 out of 10 **BLUE** experts are informed about the ball
- If the ball is BLUE:
  - An informed BLUE expert says “The ball is BLUE”
  - An uninformed BLUE expert says “The ball is BLUE”
- If the ball is RED:
  - An informed BLUE expert says “The ball is RED”
  - An uninformed BLUE expert says “The ball is BLUE”

If you get advice from a **RED** expert:

## TREATMENT E6 AND E8 ONLY



- 5 out of 10 **RED** experts are informed about the ball
- If the ball is BLUE:
  - An informed RED expert says “The ball is BLUE”
  - An uninformed RED expert says “The ball is RED”

If the ball is RED:

- An informed RED expert says “The ball is RED”
- An uninformed RED expert says “The ball is RED”

## TREATMENT S6 AND S8 ONLY



- 7 out of 10 **RED** experts are informed about the ball
- If the ball is BLUE:
  - An informed RED expert says “The ball is BLUE”
  - An uninformed RED expert says “The ball is RED”

If the ball is RED:

- An informed RED expert says “The ball is RED”
- An uninformed RED expert says “The ball is RED”

Before proceeding to the next page, please answer the comprehension question below:

If a **BLUE** expert says “The ball is **RED**”, which of the following is true?

- You know for sure that the ball is **BLUE**
- You know for sure that the ball is **RED**
- The ball is more likely to be **RED** but you do not know this for sure.
- The ball is more likely to be **BLUE** but you do not know this for sure.

**FEEDBACK/2**

**Correct!**

A BLUE expert says “The ball is RED” only if he is informed and the ball is, in fact, RED. In all other cases, he says “The ball is BLUE”. This means that, if you get advice from a BLUE expert, and he says “The ball is RED”, then you know for sure that the ball is RED.

TREATMENT E6 AND E8 ONLY

Remember that not all BLUE experts are informed (only 5 out of 10).

TREATMENT S6 AND S8 ONLY

Remember that not all BLUE experts are informed (only 3 out of 10).

Similarly, a RED expert says “The ball is BLUE” only if he is informed and the ball is, in fact, BLUE. In all other cases, he says “The ball is RED”. This means that, if you get advice from a RED expert, and he says “The ball is BLUE”, then you know for sure that the ball is BLUE.

TREATMENT E6 AND E8 ONLY

Remember that not all RED experts are informed (only 5 out of 10).

TREATMENT S6 AND S8 ONLY

Remember that not all RED experts are informed (only 7 out of 10).

### INSTRUCTIONS / 3: GUESS THE COLOR AND EARN MONEY!

After you choose what expert to consult, but before you are revealed his message, you will be asked to make your best guess about the color of the ball, depending on what you will hear from the expert. Since you can receive two different messages, you will be asked two questions:

- What is your guess about the color of the ball, if the expert says “The ball is **BLUE**”?
- What is your guess about the color of the ball, if the expert says “The ball is **RED**”?

After you submit your answers, the computer will report you the expert’s message and will use as your guess for this round the answer to the corresponding question. For example, if the expert you consulted says “The ball is **BLUE**”, the computer will use as your guess the answer you gave to the first question above. If, instead, the expert says “The ball is **RED**”, the computer will use as your guess the answer you gave to the second question above.

Your guess will determine your bonus payment in the following way:

- You will earn \$1 if your guess matches the true color of the ball.
- You will earn \$0 if your guess does not match the true color of the ball.

In addition, you will be asked how confident you are of each of your guesses, on a scale between 0 and 100. For example, 0 indicates that you think it is just as likely that you are



right or wrong (that is, you think that it is just as likely that the ball is **BLUE** or **RED**), while 100 indicates that you are sure you picked the right color (that is, you think you know for sure whether the ball is **BLUE** or **RED**). These assessments do not affect your bonus payment but it is very important to us that you make your choice carefully and that you report to us what you really believe.

Before proceeding to the next page, please answer the comprehension question below:

Consider this example. Your guesses are that the ball is BLUE if the expert says BLUE; and that the ball is RED if the expert says RED. The expert says “The ball is BLUE”? and the true color of the ball is BLUE. What is your bonus payment in this round?

- \$1 because you guessed BLUE and it coincides with the actual color of the ball.
- \$0.50 because only one of your two guesses coincides with the actual color of the ball.
- \$0 because you guessed RED and it doesn’t coincides with the actual color of the ball.

Please spend at least 60 seconds on this page. Read the instructions carefully! :-)

## **FEEDBACK/3**

**Correct!**

Only one guess matters for your bonus payment. The guess that matters depends on the message you receive from the expert. Since you do not know what message you will receive, make both guesses carefully.

If the expert says “The ball is **BLUE**”, the guess that matters for your bonus payment is the answer to the question: What is your guess about the color of the ball, if the expert

says “The ball is **BLUE**”? If the expert says “The ball is **RED**”, the guess that matters for your bonus payment is the answer to the question: What is your guess about the color of the ball, if the expert says “The ball is **RED**”?

In this example, the expert said BLUE; your guess, conditional on the expert saying BLUE, was BLUE and, thus, your guess for this round was: BLUE. The ball randomly drawn by the computer was BLUE too. This means that your guess coincided with the ball drawn by the computer and, thus, you earned \$1. You earn \$0 if your guess does not match the color of the ball.

## GET READY FOR THE GAME!

You will play **5** rounds of this game. The computer will randomly pick one round to determine your bonus payment but all rounds are equally likely to be selected so **all choices matter**. In each round, there are a new jar with 10 balls, 10 new BLUE Experts, and 10 new RED Experts. The chance the computer draws a RED ball or a BLUE ball from the jar, as well as the chance that the expert you consult is informed or uninformed **are not affected in any way by what happened in the previous rounds**. When you are ready to start with Round 1, please click the button below.

Please spend at least 30 seconds on this page. Read the instructions carefully! :-)

## PRACTICE ROUND - WHOSE ADVICE DO YOU WANT?

TREATMENT E8 AND S8 ONLY

There is a jar containing 8 **BLUE** balls and 2 **RED** balls.

TREATMENT E6 AND S6 ONLY

There is a jar containing 6 **BLUE** balls and 4 **RED** balls.

The computer has randomly drawn **ONE** ball out of this jar.

**Your task is to guess whether the ball drawn by the computer is **BLUE** or **RED**.**

Before you make your guess, you can get advice from a **BLUE** or a **RED** expert.

If you get advice from a **BLUE** expert:

- If the ball is BLUE:
  - An informed BLUE expert says “The ball is BLUE”
  - An uninformed BLUE expert says “The ball is BLUE”
- If the ball is RED:
  - An informed BLUE expert says “The ball is RED”
  - An uninformed BLUE expert says “The ball is BLUE”

If you get advice from a **RED** expert:

- If the ball is BLUE:
  - An informed RED expert says “The ball is BLUE”
  - An uninformed RED expert says “The ball is RED”

If the ball is RED:

- An informed RED expert says “The ball is RED”?
- An uninformed RED expert says “The ball is RED”?

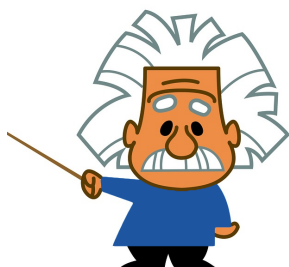
TREATMENT E6 AND E8 ONLY

Remember that 5 out of 10 BLUE experts are informed and 5 out of 10 RED experts are informed.

TREATMENT S6 AND S8 ONLY

Remember that 3 out of 10 BLUE experts are informed and 7 out of 10 RED experts are informed.

Which expert do you want to hear from?



(a) Blue Expert



(b) Red Expert

### PRACTICE ROUND - GUESS THE COLOR! (EXAMPLE)

You decided to consult a BLUE Expert.

What is your guess about the color of the ball, if the expert says “The ball is BLUE”?

On a scale from 0 to 100, how confident are you about this guess? For example, 0 means that you think it is just as likely that you are right or wrong and 100 means you are sure your guess is correct.

What is your guess about the color of the ball, if the expert says “The ball is RED”?

On a scale from 0 to 100, how confident are you about this guess? For example, 0 means that you think it is just as likely that you are right or wrong and 100 means you are sure your guess is correct.

### **PRACTICE ROUND - RESULTS (EXAMPLE)**

You decided to consult a **BLUE** Expert.

This expert reported “The ball is **BLUE**”.

Your guess, given the expert’s report, was: **BLUE**.

The ball randomly drawn by the computer in this round was **BLUE**.

Your earnings in this round are \$1.00.

When you are ready to start with the first of the paid rounds, please click the button below.