

ONLINE APPENDIX

SELECTIVE INFORMATION SHARING
AND GROUP DELUSION

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A. Proofs

Proof of Lemma 1 One can rewrite (2) as

$$(A.1) \quad \Delta(\tau_i) = \frac{N}{N+1} \pi_i [(k-1)\delta_S(\tau_i) + \delta_W(\tau_i)] - \frac{N}{N+1} \delta_W(\tau_i) + \alpha N \tau_i.$$

Since $\delta_\omega(1)$ is positive for each ω , $(k-1)\delta_S(\tau_i) + \delta_W(\tau_i)$ is positive. As π_i is increasing in σ_i (this is obvious, but also see A.5), it follows that $\bar{\sigma}_1$ exists such that the agent shares $\tau_i = 1$ when $\sigma_i \geq \bar{\sigma}_1$. Similarly, since $\delta_\omega(-1)$ is negative, it follows that $\bar{\sigma}_0$ exists such that the agent shares $\tau_i = -1$ when $\sigma_i \leq \bar{\sigma}_0$. $\square$

Proof of Lemma 2 When $\pi_i = 1$,

$$(A.2) \quad \Delta(-1) = \frac{N}{N+1} (k-1)\delta_S(-1) - \alpha N < 0$$

since $\delta_S(-1) < 0$ and when $\pi_i = 0$

$$(A.3) \quad \Delta(-1) = -\frac{N}{N+1} \delta_W(-1) - \alpha N$$

can be positive or negative depending on the strength of reputational concerns α : it is positive if and only if α is small enough. If α is small so that $\Delta(-1)$ is positive, one can find

$$(A.4) \quad \bar{\pi}_0 = \frac{\delta_W(-1) + \alpha(N+1)}{(k-1)\delta_S(-1) + \delta_W(-1)}$$

such that negative signals are shared iff $\pi_i < \bar{\pi}_0$, or, equivalently, $\sigma_i < \bar{\sigma}_0$. Note that if the range of the likelihood ratio $l(\sigma)$ is narrow, it may be that for all σ_i the corresponding π_i is higher than $\bar{\pi}_0$: then, we have a corner solution, $\bar{\sigma}_0 = 1$. Since $\delta_S(-1)$ and $\delta_W(-1)$ are both negative, $\bar{\pi}_0$ (and hence $\bar{\sigma}_0$ when the solution is interior) is decreasing in α . This proves all parts of the Lemma regarding the sharing policy with respect to negative signals. For the positive

signals, the proof is analogous. $\square$

Proof of Proposition 1 We prove the proposition by first establishing some helpful lemmas. Recall that each of the $N + 1$ agents receives a non-verifiable signal $\sigma_j \in [0, 1]$ and a verifiable signal $\tau_j \in \{-1, 1, \emptyset\}$. Let $m_{-j} = \{m_i : i \neq j\}$ the set of messages received by agent j from other agents. As all signals are independent draws (conditional on the state), and agents are assumed to believe that others always share their verifiable signal, the agent's posterior probability π_j that the team is strong is given by:

$$(A.5) \quad \frac{\pi_j}{1 - \pi_j} = \frac{\pi_0}{1 - \pi_0} l(\sigma_j) R(\tau_j, m_{-j}) = l(\sigma_j) R(\tau_j, m_{-j}),$$

where $\pi_0 = \frac{1}{2}$ is the prior belief, $l(\sigma) := f_S(\sigma)/f_W(\sigma)$ and $R(\tau_j, m_{-j}) = \frac{g_S(\tau_j)}{g_W(\tau_j)} \prod_{i \neq j} \frac{g_S(m_i)}{g_W(m_i)}$, and $g_\omega(\tau)$ is the conditional probability of receiving signal τ when the state is ω .

We first show that each agent uses a threshold strategy for their investment decision.

Lemma 3 (Investment decision).

1. *Agents use a threshold strategy. There exists $\hat{\sigma}_j(\tau_j, m_{-j})$ such that agent j 's investment decision is given by:*

$$x_j(\sigma_j, \tau_j, m_{-j}) = \begin{cases} 1 & \text{if } \sigma_j \geq \hat{\sigma}_j(\tau_j, m_{-j}), \\ 0 & \text{otherwise,} \end{cases}$$

2. *The threshold value $\hat{\sigma}_j(\tau_j, m_{-j})$ decreases when agent $i \neq j$ shares signal $m_i = 1$ and increases when $m_i = -1$, compared to sharing $m_i = \emptyset$.*

Proof. Let $x_j \in \{0, 1\}$ denote the investment of agent j , and $X_{-j} = \sum_{i \neq j} x_i$ the sum of investments by others. Holding X_{-j} fixed, the marginal effect of

setting $x_j = 1$ rather than $x_j = 0$ on the payoff is

$$\Delta I(\omega) = I(k, \frac{1+X_{-j}}{N+1}, \omega) - I(k, \frac{X_{-j}}{N+1}, \omega) = \frac{1}{N+1} (k \mathbf{1}_{\{\omega=S\}} - 1).$$

Taking expectations conditional on agent j 's information,

$$\Delta_j^{\text{inv}} := \mathbb{E}[\Delta I(\omega) \mid \sigma_j, \tau_j, m_{-j}] = \frac{1}{N+1} (k\pi_j - 1).$$

Thus $x_j = 1$ is optimal if and only if $\Delta_j^{\text{inv}} \geq 0$, which is equivalent to:

$$l(\sigma_j) \geq \frac{1}{k-1} \frac{1}{R(\tau_j, m_{-j})}.$$

By our assumptions on $l(\sigma)$, there exists a unique threshold $\hat{\sigma}_j(\tau_j, m_{-j})$ such that $\Delta_j^{\text{inv}} \geq 0$ iff $\sigma_j \geq \hat{\sigma}_j(\tau_j, m_{-j})$ where

$$l(\hat{\sigma}_j) := \frac{1}{k-1} \frac{1}{R(\tau_j, m_{-j})}.$$

This proves the first part of the Lemma. The second part of the Lemma follows in a straightforward manner from the definition of $R(\tau_j, m_{-j})$ and the fact that the signal τ_i has reliability $r > \frac{1}{2}$. $\square$

Now consider an agent i with verifiable signal $\tau_i \in \{-1, 1\}$. Let x_j denote the investment decision of another agent $j \neq i$. Following the main text, define

$$(A.6) \quad \delta_\omega(\tau_i, N) := P(x_j = 1 \mid m_i = \tau_i, \omega) - P(x_j = 1 \mid m_i = \emptyset, \omega),$$

where probabilities are taken over all signals and messages, conditional on team strength ω and given the behavioral rule in Lemma 3. Note that $\delta_\omega(\tau_i, N) \in [-1, 1]$.

We now formalize the idea that as teams become large, the perceived informational impact of a single signal on another agent's decision (hence on $\delta_\omega(\tau_i, N)$) vanishes. Let $g_\omega(\tau_m)$ be the conditional probability of signal τ_m

and let $\gamma_m = \log \frac{g_S(\tau_m)}{g_W(\tau_m)}$ and $Y_N = \sum_{m=1}^N \gamma_m$ for all $m \neq i$. Define $a := \log \frac{r}{1-r}$, and note that $\log \frac{g_S(1)}{g_W(1)} = -\log \frac{g_S(-1)}{g_W(-1)} = a$ and $\log \frac{g_S(\emptyset)}{g_W(\emptyset)} = 0$ hence $\gamma_m \in \{-a, 0, a\}$.

Consider

$$\tilde{\pi}_N := \log \frac{\pi_j}{1 - \pi_j} = \log l(\sigma_j) + Y_N.$$

This is the log odds of agent j 's posterior, which depends on the agent's own signal (σ_j) and the N verifiable signals of all team members (including agent j but excluding agent i). Without the signal of agent i , agent j will invest if

$$\tilde{\pi}_N \geq t^* := -\log(k-1).$$

If in addition agent i shares signal τ_i , then agent j will invest if

$$\tilde{\pi}_N + \gamma_i \geq t^*.$$

Consider $\tau_i = 1$, so that $\gamma_i = a$. Agent i 's signal is pivotal if:

$$\tilde{\pi}_N \in [t^* - a, t^*),$$

or equivalently if

$$Y_N \in I = [t^* - \log l(\sigma_j) - a, t^* - \log l(\sigma_j)).$$

For any given σ_j , the probability that agent i is pivotal is the probability that $Y_N \in I$. Since $l(\sigma)$ is assumed to be bounded, there is some $M > 0$ such that I is contained in the interval $[-M, M]$ for any possible σ_j . We thus have,

$$P(Y_N \in I \mid \omega) \leq P(Y_N \in [-M, M] \mid \omega).$$

Consider $\omega = S$. Under our assumption that agents expect others to always share their verifiable signal, agent i expects that $\mu_S = E[\gamma_m | S] = (2r - 1)qa$, and expects that Y_N will center at $E[Y_N | S] = \mu_S N$. Note that

$$P(Y_N \in [-M, M] | S) \leq P(Y_N \leq M | S) = P(Y_N - \mu_S N \leq -(\mu_S N - M) | S).$$

Conditional on the state, the signals are independent. By Hoeffding's inequality³⁸ (in the conditional form), for $\mu_S N > M$

$$P(Y_N - \mu_S N \leq -(\mu_S N - M) | S) \leq \exp\left(-\frac{(\mu_S N - M)^2}{2Na^2}\right)$$

Hence, agent i expects to be pivotal with probability

$$P(Y_N \in I | S) \leq \exp\left(-\frac{(\mu_S N - M)^2}{2Na^2}\right).$$

The RHS of the last inequality goes to zero as $N \rightarrow \infty$. Hence, for large N , we have that the expected probability of being pivotal conditional on the team being strong, $P(Y_N \in I | S)$, vanishes.

A similar bound can be obtained for $\omega = W$. In that case, $\mu_W = E[\gamma_M | W] = -(2r - 1)qa$ and we get the following chain:

$$P(Y_N \in [-M, M] | W) \leq P(Y_N \geq -M | W) = P(Y_N - \mu_W N \geq -\mu_W N - M | W),$$

and again by applying Hoeffding's inequality, for $-\mu_W N > M$ (where $\mu_W < 0$)

$$P(Y_N - \mu_W N \geq -\mu_W N - M | W) \leq \exp\left(-\frac{(-\mu_W N - M)^2}{2Na^2}\right)$$

The case for $\tau_i = -1$ is analogous with the appropriate sign changes, and

³⁸See, e.g., [Petrov \(2012, p.58\)](#).

noting that the interval where i is pivotal becomes $[t^*, t^* + a)$.

We have therefore established:

Lemma 4. $\delta_\omega(\tau_i, N) \rightarrow 0$ as $N \rightarrow \infty$.

Recall from the main text that, conditional on the agent's information, the perceived payoff differential for agent i from sharing versus hiding τ_i is

$$(A.7) \quad \Delta_N(\tau_i; \pi_i) = \frac{N}{N+1} \underbrace{[(k-1)\pi_i\delta_S(\tau_i, N) - (1-\pi_i)\delta_W(\tau_i, N)]}_{\varphi(\tau_i, \pi_i, N)} + \alpha N \tau_i,$$

where π_i is agent i 's posterior on $\omega = S$ and $\alpha \geq 0$ is the weight on reputational concerns. We next show that the informational term $\varphi(\cdot)$ is bounded and vanishes as the team grows sufficiently large.

Lemma 5. *For each $\tau_i \in \{-1, 1\}$:*

1. *There exists a constant $C_1 > 0$ such that for all $N \geq 1$,*

$$|\varphi(\tau_i, \pi_i, N)| \leq C_1,$$

2. $\lim_{N \rightarrow \infty} \varphi(\tau_i, \pi_i, N) = 0$.

Proof. To prove this Lemma, note that, as $|\delta_\omega(\tau_i, N)| \leq 1$, we have:

$$|\varphi(\tau_i, \pi_i, N)| \leq \frac{N}{N+1} [(k-1)\pi_i|\delta_S(\tau_i, N)| + (1-\pi_i)|\delta_W(\tau_i, N)|] \leq (k-1)+1,$$

so we can take $C_1 = k$, showing the first part. The second part follows from the fact that $\delta_\omega(\tau_i, N) \rightarrow 0$ as $N \rightarrow \infty$ for each ω (see Lemma 4). $\square$

We now study comparative statics of the sharing thresholds in team size N and reputational weight α . Let $\bar{\pi}_1(N)$ denote the lowest value of $\pi_i \in [0, 1]$ such that $\Delta_N(1, \pi) \geq 0$ and $\bar{\pi}_0(N)$ denote the lowest value of $\pi_i \in [0, 1]$ such that $\Delta_N(-1, \pi) \geq 0$. $\Delta_N(1; \pi_i)$ is strictly increasing in π_i , and $\Delta_N(-1; \pi_i)$

is strictly decreasing in π_i (see the proof of Lemma 1), so these thresholds are well defined and unique. Denote the corresponding threshold signals by $\bar{\sigma}_1(N)$ and $\bar{\sigma}_0(N)$.

We are interested in the behavior of these thresholds as N increases, under two regimes: (i) large α for fixed N , and (ii) large N for fixed $\alpha > 0$. Consider

$$(A.8) \quad \Delta_{N+1}(\tau_i; \pi_i) - \Delta_N(\tau_i; \pi_i) = \varphi(\tau_i, \pi_i, N+1) - \varphi(\tau_i, \pi_i, N) + \alpha\tau_i.$$

By Lemma 5, $\varphi(\tau_i, \pi_i, N+1)$ and $\varphi(\tau_i, \pi_i, N)$ are bounded, hence so is $\varphi(\tau_i, \pi_i, N+1) - \varphi(\tau_i, \pi_i, N)$: there exists $C_2 > 0$ such that

$$|\varphi(\tau_i, \pi_i, N+1) - \varphi(\tau_i, \pi_i, N)| \leq C_2 \quad \text{for all } N \geq 1, \pi_i \in [0, 1], \tau_i \in \{-1, 1\}.$$

To show the first part of the proposition, fix N and let $\alpha > C_2$. From (A.8), it then follows that:

$$\Delta_{N+1}(1; \pi_i) - \Delta_N(1; \pi_i) \geq -C_2 + \alpha > 0,$$

and

$$\Delta_{N+1}(-1; \pi_i) - \Delta_N(-1; \pi_i) \leq C_2 - \alpha < 0.$$

Since $\Delta_N(1; \pi_i)$ is strictly increasing in π_i (see the proof of Lemma 1), it follows that $\bar{\pi}_1(N+1) \leq \bar{\pi}_1(N)$ and thus $\bar{\sigma}_1(N+1) \leq \bar{\sigma}_1(N)$. Similarly, as $\Delta_N(-1; \pi_i)$ is strictly decreasing in π_i , it follows that $\bar{\pi}_0(N+1) \leq \bar{\pi}_0(N)$ and thus $\bar{\sigma}_0(N+1) \leq \bar{\sigma}_0(N)$.

To show the second part of the proposition, fix $\alpha > 0$. By Lemma 5, $\varphi(\cdot) \rightarrow 0$ as $N \rightarrow \infty$. Hence, for any $\varepsilon > 0$, there exists $\bar{N}(\varepsilon)$ such that for all $N \geq \bar{N}(\varepsilon)$ and all π_i ,

$$|\varphi(\tau_i, \pi_i, N+1) - \varphi(\tau_i, \pi_i, N)| \leq \varepsilon.$$

Take $\varepsilon = \alpha/2$. Then, for all $N \geq \bar{N}(\alpha)$,

$$\Delta_{N+1}(1; \pi_i) - \Delta_N(1; \pi_i) \geq -\alpha/2 + \alpha = \alpha/2 > 0,$$

and

$$\Delta_{N+1}(-1; \pi_i) - \Delta_N(-1; \pi_i) \leq \alpha/2 - \alpha = -\alpha/2 < 0.$$

Thus, for all sufficiently large N , the same shifts occur as in part (1) of the proposition, and the same arguments imply that $\bar{\pi}_1(N)$ and $\bar{\pi}_0(N)$ are weakly decreasing in N for all $N \geq \bar{N}(\alpha)$, and therefore, so are $\bar{\sigma}_1(N)$ and $\bar{\sigma}_0(N)$. $\square$

B. Experimental Instructions

Below are the instructions used for sessions with a groupsize of 4. Treatment specific instructions are indicated with [Treatment ENDO] or [Treatment EXO]. Appendix C contains some screenshots. Correct answers to quiz questions are underlined here but not in the actual experiment.

Instructions.

Thank you for participating in this study. Please read all the instructions carefully. If you have any questions during the experiment, please raise your hand and an experimenter will come to you to answer your question in private.

You will receive a guaranteed payment of €8 for completing the study. On top of this, you can earn a substantial bonus.

The study consists of 6 parts, followed by a short survey. At the start of each part, we explain how you can earn money. At the end of the study, one part will be randomly selected for actual payment (rounded to 10 cents).

On the next pages, you will see the description of your task for the first part.

Instructions for Part 1

Your task. Part 1 consists of 15 questions. **These questions measure your ability to reason in a logical way and such questions are often used as a measure of intelligence.**

Later on, you will get some feedback on your performance. This feedback is sometimes also shared with other participants, but you will remain anony-

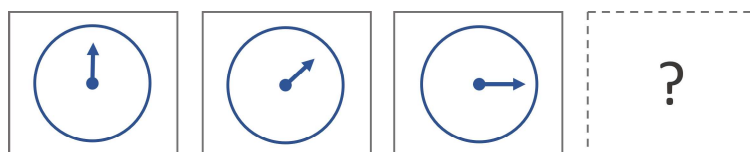
mous (your cubicle number remains hidden to other participants). There will also be a part in which there is an investment opportunity that pays more when your performance on the test is better.

Your payment. If this part is randomly selected for payment, then you get a **bonus payment of €1.00 for each correct answer.**

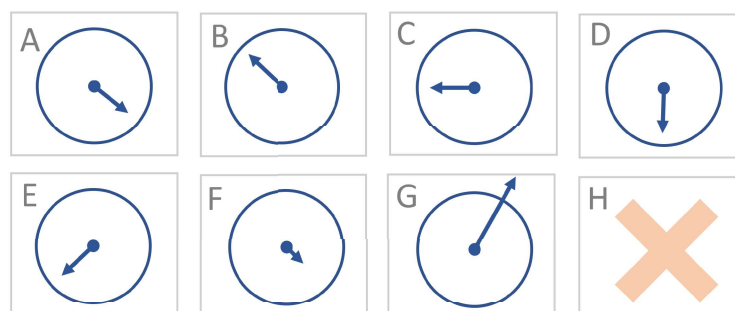
On the next page you will see an example question.

Below is an example of the type of questions that you will get.

You will see a series of figures that follow a logical pattern. One figure still has a question mark. Your task is to select the figure that logically fits at the position of the figure with the question mark.



You can select your answer from the answer options that are provided below the question. The correct answer in this example would be answer A. The logical pattern is that the arrow rotates by 45 degrees clockwise in each next figure.

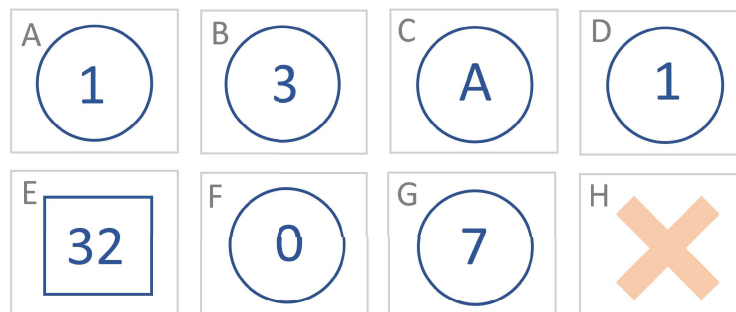


Sometimes none of the provided answers completes the pattern in a logical manner. In that case, you should select the answer that has a cross.

For instance, in the example below, the logical pattern is that there is a number in a circle, and the number doubles in each step. The missing figure should also have a circle, with the number 32.



None of the figures in the answer options fits the pattern. Answer E has the right number, but the shape around it is not a circle. The correct answer is therefore answer H.



There is a time limit of 8 minutes and there are 15 questions.

You can skip a question, but you cannot go back to a previous question.

Remember, you will get €1.00 for each correct answer. There is no penalty for incorrect answers.

Each participant will get the same 15 questions.

Instructions for Part 2

For this and the following parts, we have randomly formed groups of 4 people.

Based on the performance on the IQ test, we have ranked the 4 people in your group from best (rank 1, most correct answers) to worst (rank 4, fewest correct answers). Ties are resolved randomly.

Within your group of 4 people, we then formed two teams: the **strong team** and the **weak team**. Higher ranked people are more likely to be in the strong team but not always. The strong team always consists of the person ranked 1 (the best performer) and either the person ranked 2 or ranked 3 (determined randomly). The person with the worst performance (rank 4) is never in the strong team.

We will call your team "Team Orange" and the other team "Team Blue". We will not tell you if your team is the strong or the weak team.

You will stay in the same group (of 4 people) and the same team (of 2 people) for the remainder of this study.

Your task. We will ask you to estimate the chance that Team Orange (your team) is the strong team.

You can indicate your estimate on a scale from 0 to 100. An estimate of 0 means that you are certain that your team IS NOT the strong team. An estimate of 100 means that you are certain that your team IS the strong team. An estimate of 50 means that you think it is equally likely that your team is the strong team or the weak team. You can also indicate any other number

between 0 and 100.

Your payment. If this part is selected for payment, **you can earn a bonus of €10.** The rule that determines your bonus payment is set up in such a way that **you maximize the chance to get the bonus if the estimate that you report is what you truly believe.** If you wish to know more about the rule, you can [click here](#).

On the next page, there will be some quiz questions to test your understanding of the instructions. If you answer them correctly on your first attempt, you will earn an additional bonus of €1.

Quiz questions were: 1) Will your group and team stay the same throughout the study? (Yes/No), 2) Which statement is correct? (Any participant can be in the strong team/The lowest ranked participant can never be in the strong team/The strong team always consists of the 2 highest ranked participants), 3) What will you be asked to estimate? (The chance that you are in the strong team/The chance that you are in the weak team/The chance of being the highest ranked member of your team).

Instructions for Part 3

In this part, there will be two investment opportunities. The investments are bets that will either pay 2.5 times the amount invested (minus the investment) or nothing.

Bet 1: The Team Performance bet. This bet is related to your team performance on the IQ test. This bet pays 2.5 times the amount invested if **Team Orange is the strong team.** You will lose the investment if Team

Orange is the weak team.

Bet 2: The Number bet. This bet is related to a random number. The computer randomly assigned a number to your team. The team number can be high (100) or low (0). A high or low number are equally likely and independent on your performance on the IQ test. This bet pays 2.5 times the amount invested **if the number is high**. You will lose your investment if the number is low.

The two bets are unrelated to each other. Only the Team Performance bet will depend on your performance on the IQ test.

Your task. You will receive a separate budget of 600 cents for each of the bets. For each bet, we ask you to indicate how much of the endowment you want to invest in that bet. You get to keep the amount that is not invested.

Your payment. If this part is selected for payment, one of the bets will be implemented. With 80 percent chance the Team Performance bet will be implemented, and with 20 percent chance the Number bet will be implemented.

The investment will be a joint decision by all team members. Each of you individually decides how much you want to invest. The actual amount invested will be the average investment chosen by all team members.

On the next page, there will be some quiz questions to test your understanding of the instructions. If you answer them correctly on your first attempt, you will earn an additional bonus of €1.

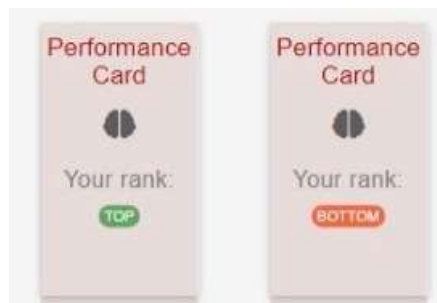
Quiz questions were: 1) An investment in the Team Performance Bet pays money if: (Your team is the weak team/Your team is the strong team, 2) An investment in the Number Bet pays money if: (Your team got a low number/Your team got a high number), 3) Which statement is true about the team number? (A high number is more likely if your team is the strong team/It is random and equally likely to be high or low).

Instructions for Part 4

This part has 6 rounds. You will stay in the same team (Team Orange) in all rounds and the team number (high or low) always stays the same.

In each round, you will receive two "**feedback cards**": One performance feedback card and one number feedback card.

The performance feedback card gives you information about your relative performance on the IQ test. It shows whether you are personally in the top half (rank 1 or 2) or bottom half (rank 3 or 4) of your group. Performance cards are indicated with the brain symbol () and, depending on the feedback, can look like this:



The number feedback card gives you information about the team num-

ber. It shows whether your Team Orange got a high or low number. Number cards are indicated with the chance symbol (🎲) and, depending on the feedback, can look like this:



The information on the feedback cards is not always correct. The reliability of the information on any card is 2/3rds. This means that the information is correct with 67% chance, and incorrect with 33% chance.

For each feedback card, the computer rolls a virtual die. The outcome remains hidden to you. If the outcome is 1, 2, 3, or 4, then the information on the feedback card is correct. If the outcome is 5 or 6, then the information on the feedback card is false.

There will be separate die rolls for each card and for each round, and there will be separate die rolls for you and your team member. Thus, it is possible that you get different feedback in different rounds. And even though the actual team number is the same for all team members, and stays the same in all rounds, it is possible that team members get different feedback about the number.

[Treatment ENDO] **Your task.** In each round, you will select exactly one of the two feedback cards to share with your team member. Your team member

will also be asked which feedback card he or she wants to share with you.

[Treatment EXO] **Your task.** In each round, one of the cards will be randomly selected and shown to your team member. The performance card and number card are equally likely to be selected. You will also see a randomly selected feedback card of your team member.

After rounds 3 and 6, we will ask you again to estimate the chance that your team is the strong team.

Your payment. If this part is selected for payment, you can earn a bonus of €10. We will pay you for one randomly selected estimate, using the same rule as described in part 2. To maximize the chance to earn a bonus, it is in your own best interest to tell us what you truly believe.

After this part, there will be two more parts.

In Part 5, you will again be asked to make two investment decisions. You will again have the option to invest in the Team Performance bet and the Number bet. Only one of the bets counts for payment if that part is selected for payment. With 80 percent chance it is the performance bet and with 20 percent chance it is the number bet. The actual amount invested will be the average investment chosen by you and your team member.

In the final part (Part 6), we will rank all 4 participants of this session in terms of their performance on the IQ test, from 1 (best performance) to 4 (worst performance). We will ask you to guess the rank of your team member. You can earn a small bonus if your guess is accurate. Your team member will be asked the same. **At the end of the experiment, you will find out**

how high your team member ranked you.

For a summary of the instructions, [click here](#).

On the next page, there will be some quiz questions to test your understanding of the instructions. If you answer them correctly on your first attempt, you will earn an additional bonus of €1.

Quiz questions were: 1) How reliable is each feedback card? (The information is completely random/The information is 100% reliable (always correct)/The information is 67% reliable (correct with 67% percent chance)), 2) In the last part we will ask you to guess the overall rank of your team member. Will you find out how high your team member ranked you? (Yes/No), 3) Regarding the team number, which statement is true? (The team number is a new random draw in each round/The team number stays fixed for all rounds).

Instructions for Part 5

In this part, there will again be two investment opportunities. The investments are bets that will either pay 2.5 times the amount invested (minus the investment) or nothing.

Bet 1: The Team Performance bet. This bet pays 2.5 times the amount invested **if Team Orange is the strong team**. You will lose the investment if Team Orange is the weak team.

Bet 2: The Number bet. This bet pays 2.5 times the amount invested **if the number is high**. You will lose your investment if the number is low.

The two bets are unrelated to each other. Only the team performance bet will depend on your performance on the IQ test.

Your task You will receive a separate budget of 600 cents for each of the bets. For each bet, we ask you to indicate how much of the endowment you want to invest in that bet. You get to keep the amount that is not invested.

Your payment If this part is selected for payment, one of the bets will be implemented. With 80 percent chance the Team Performance bet will be implemented, and with 20 percent chance the Number bet will be implemented.

The actual amount invested will be based on the average investment chosen by you and your team member.

Instructions for Part 6

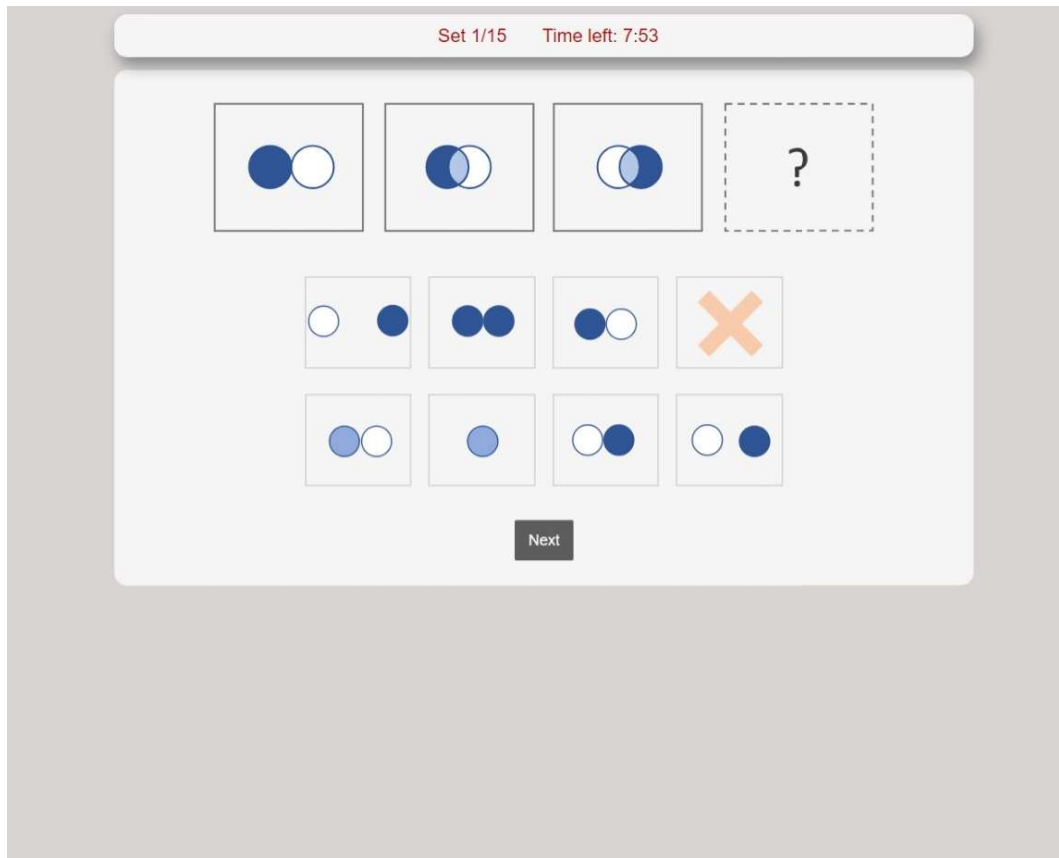
This is the final part. In this part, we will ask you to rank your team member among the entire group of participants of this session.

There are 4 participants. The participant who gave the most correct answers on the IQ test will get rank 1. The participant who gave the fewest correct answers on the IQ test will get rank 4.

If this part is selected for payment, you will receive an additional amount of €7 on top of the show up fee, and a bonus of €3 if your guess about your team member's rank is correct.

C. Screenshots

These are screenshots of some of the main experimental pages (treatment ENDO).



Part 2

Please estimate the chance that **your team** (Team Orange) is the **strong team**.

You can indicate your guess on a scale from 0 to 100. A guess of 0 means that you are certain Team Orange IS NOT the strong team. A guess of 100 means that you are certain Team Orange IS the strong team. A guess of 50 means that you think it is equally likely that Team Orange is the strong team or that Team Orange is not the strong team. You can also indicate any other number between 0 and 100.

Enter your estimate (on a scale from 0 to 100):

Submit

Performance bet

How much of your endowment of 600 cents do you want to invest in a bet that pays 2.5 times the investment if **your team (Team Orange) is the strong team**?

Investment (between 0 to 600):

Submit

Below are the two feedback cards for this round. The performance card reports whether you are in the top or bottom half. The number card reports whether your team has a high or low number. Each card has a reliability of 67 percent.

Please indicate which feedback card you want to share with your team member:

Performance Card	Number Card
	
Rank:	Number:
BOTTOM	LOW
Reliability: 67 %	Reliability: 67 %
Share	Share

[Submit choice](#)

Your team member received two feedback cards, and shared the following feedback card with you:

Performance card



Rank:

TOP

Reliability: 67 %

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D. Tables

Table D1: Background characteristics of participants

	EXO2	ENDO2	EXO4	ENDO4	<i>p-value</i>
Mean age (years)	21.7	21.1	21.1	21.5	0.514
Female (%)	56	46	60	48	0.236
Risk attitude (% invested) ^a	47	46	44	52	0.396
Observations	52	48	96	96	

Notes: ^a Risk attitude is measured as the percentage of endowment invested in the initial neutral bet. The reported *p-values* are from Kruskal-Wallis tests of equality of distributions.

Table D2: Sharing decision in treatment ENDO

	(1)	(2)	(3)	(4)
DV: Shares performance signal				
Performance signal TOP	0.283 (0.030)	0.291 (0.035)	0.290 (0.036)	0.297 (0.044)
Neutral signal HIGH	0.006 (0.041)	0.004 (0.042)	0.008 (0.041)	0.008 (0.041)
Score	-	-0.007 (0.011)	-0.009 (0.010)	-0.009 (0.010)
Round	-	-	-0.022 (0.010)	-0.022 (0.010)
Female	-	-	-0.082 (0.037)	-0.075 (0.052)
Performance signal TOP X Female	-	-	-	-0.015 (0.081)
Age	-	-	0.000 (0.006)	0.000 (0.006)
Risk attitude ^a	-	-	-0.000 (0.000)	-0.000 (0.000)
Constant	0.393 (0.037)	0.451 (0.109)	0.635 (0.158)	0.631 (0.159)
Observations	864	864	864	864
R-squared	0.081	0.081	0.098	0.098

Notes: This table reports the estimates from a linear probability model. The dependent variable is the decision to share a performance signal. ^a Risk attitude is measured by the initial investment in the neutral bet. Robust standard errors are in parentheses, clustered at the matching group level.

Table D3: Team Confidence and Team Size

DV: Belief to be in a strong team	(1) Final beliefs	(2) Δ belief
Treatment ENDO (a)	7.232 (5.955)	7.822 (5.701)
Large team	-3.122 (6.465)	2.937 (6.224)
ENDO x Large team (b)	4.799 (7.791)	2.886 (7.726)
Constant	56.038 (5.119)	-13.635 (4.474)
p -value (a)+(b)=0	0.021	0.046
Observations	292	292
R-squared	0.036	0.039

Notes: This table reports the estimates from a linear probability model. The dependent variable is the belief to be in the strong team (0-100), as elicited in round 6 in model (1), or the variation in beliefs over time in model (2) (Δ belief = final belief - initial belief). Robust standard errors in parentheses are clustered at the matching group level.

Table D4: Team Investments and Team Size

	(1)	(2)	(3)
DV:	Δ invest	Δ invest	Δ invest
Sample:	All	Weak teams	Strong teams
Treatment ENDO	76.832 (35.030)	101.202 (53.415)	52.462 (47.961)
Large team	17.436 (39.157)	-34.798 (48.907)	69.670 (51.324)
ENDO x Large team	-8.873 (48.722)	15.402 (69.368)	-33.149 (67.753)
Constant	-57.769 (22.114)	-63.077 (35.949)	-52.462 (29.205)
Observations	98	49	49
R-squared	0.089	0.187	0.081

Notes: OLS estimates. Dependent variable is the change in investment in the performance bet (final investment minus initial investment, averaged over all team members). Robust standard errors in parentheses are clustered at the group level (column 1) or team level (columns 2 and 3).

Table D5: Confidence and feedback

DV: Logit confidence	(1) EXO2	(2) ENDO2	(3) EXO4	(4) ENDO4
# positive performance signals (own)	0.591 (0.159)	0.483 (0.090)	0.480 (0.132)	0.549 (0.054)
# positive performance signals (team members)	0.684 (0.159)	0.205 (0.169)	0.477 (0.089)	0.581 (0.075)
# neutral signals (team members)	0.443 (0.186)	-0.069 (0.180)	0.195 (0.101)	0.295 (0.044)
logit prior belief	0.963 (0.051)	0.573 (0.074)	0.703 (0.104)	0.660 (0.062)
Constant	-2.202 (0.311)	-0.556 (0.522)	-2.789 (0.417)	-3.391 (0.413)
Observations	104	96	192	192
R-squared	0.677	0.381	0.485	0.552

Notes: OLS estimates, pooled over rounds 3 and 6. Robust standard errors clustered at the matching group level. The dependent variable is the belief about being in the strong team in terms of log odds, *i.e.*, $\ln(\text{belief}/(100-\text{belief}))$. Beliefs of 0 and 100 are recoded as 1 and 99, respectively.

Table D6: Confidence and feedback

DV: Logit confidence Sample:	(1) ENDO2 All	(2) ENDO2 bias is positive	(3) ENDO2 bias is above median	(4) ENDO4 all	(5) ENDO4 bias is positive	(6) ENDO4 bias is above median
PANEL A: Feedback own						
# positive performance signals	0.341 (0.058)	0.362 (0.079)	0.229 (0.127)	0.408 (0.057)	0.338 (0.052)	0.341 (0.057)
# negative performance signals	-0.139 (0.054)	-0.129 (0.067)	-0.042 (0.076)	-0.095 (0.057)	-0.070 (0.051)	-0.088 (0.045)
logit prior belief	0.574 (0.070)	0.585 (0.120)	0.604 (0.103)	0.641 (0.057)	0.713 (0.063)	0.687 (0.065)
PANEL B: Feedback team members						
# positive performance signals	0.239 (0.059)	0.379 (0.114)	0.328 (0.164)	0.248 (0.040)	0.194 (0.045)	0.186 (0.035)
# neutral signals	-0.041 (0.061)	-0.080 (0.103)	-0.129 (0.119)	0.039 (0.033)	0.050 (0.041)	0.039 (0.040)
# negative performance signal	0.157 (0.126)	0.087 (0.255)	0.178 (0.234)	-0.291 (0.032)	-0.258 (0.032)	-0.246 (0.050)
logit prior belief	0.617 (0.075)	0.641 (0.155)	0.595 (0.138)	0.688 (0.071)	0.736 (0.075)	0.715 (0.081)
Observations	96	54	44	192	140	120

Notes: OLS estimates, pooled over rounds 3 and 6. Panels A and B are separate regressions. Robust standard errors clustered at the matching group level. The dependent variable is the belief about being in the strong team in terms of log odds, *i.e.*, $\ln(\text{belief}/(100-\text{belief}))$. Beliefs of 0 and 100 are recoded as 1 and 99, respectively.

Table D7: Gender and beliefs and investments in the performance bet

	(1)	(2)	(3)	(4)
	final beliefs		Δ investments	
Treatment ENDO	11.765 (6.521)	11.689 (6.537)	106.403 (44.508)	108.293 (43.895)
Female	-4.160 (6.034)	-4.040 (6.063)	66.539 (39.758)	63.521 (39.144)
Treatment ENDO x Female	-3.961 (7.635)	-3.975 (7.640)	-58.192 (47.385)	-57.830 (46.792)
Risk attitude ^a	-	0.004 (0.009)	-	-0.089 (0.057)
Constant	56.459 (5.405)	55.424 (6.099)	-85.574 (39.182)	-59.646 (44.136)
Observations	292	292	292	292
R-squared	0.047	0.047	0.048	0.054

Notes: OLS estimates. ^a) Risk attitude is measured by the initial investment in the neutral bet. Robust Standard errors in parentheses, clustered at the matching group level. Δ investment in column (2) is the increase in investments in the performance bet (final minus initial investment).