Online Appendix: Motivated beliefs and anticipation of uncertainty resolution

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A Robustness checks

Subsequently, I provide robustness checks for the main results in the paper.

A.1 Belief adjustments - excluding wrong belief adjustments

Figure 1 plots subjects' belief adjustments on Bayesian belief adjustments, excluding belief adjustments in the wrong direction.

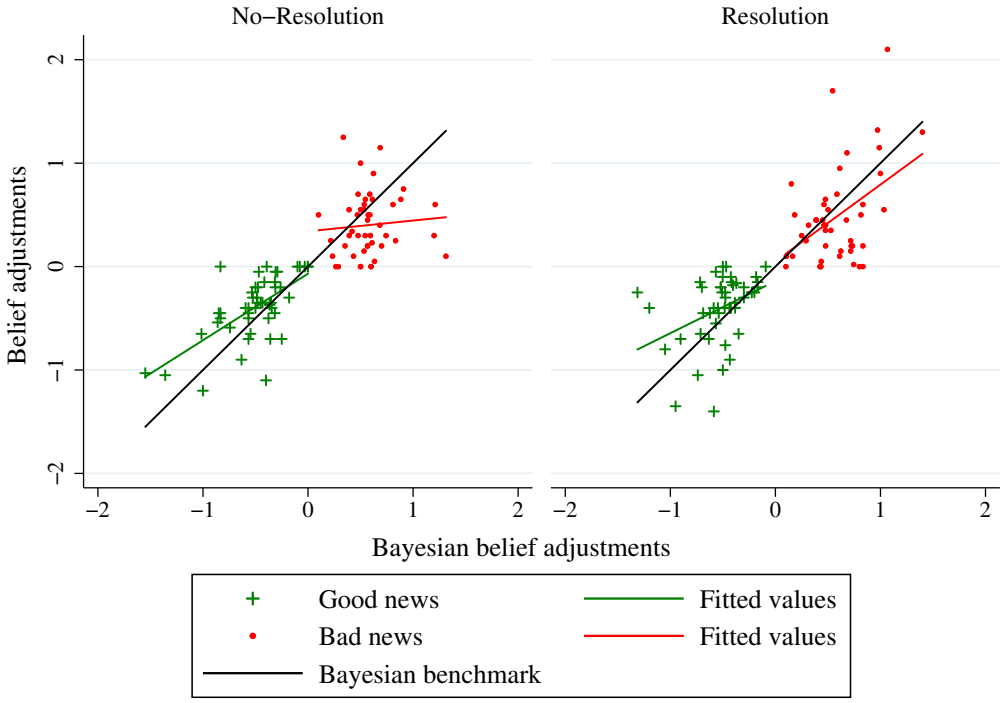


Figure 1: Belief adjustments on Bayesian belief adjustments

In Table 1, I replicate the regression analysis of Table 2 in the paper, excluding belief adjustments in the wrong direction.

Table 1: Belief adjustments - excluding wrong belief adjustments

$$Beliefadjustment_i = \beta_0 + \beta_1 Bayesbeliefadj_i + \beta_2 Good\ news_i + \beta_3 Bayesbeliefadj_i * Good\ news_i + \epsilon_i$$

	No-Resolution			Resolution		
	Good news	Bad news	Diff-in-diff	Good news	Bad news	Diff-in-diff
	(1)	(2)	(3)	(4)	(5)	(6)
β_1	0.644	0.104	0.104	0.504	0.742	0.742
	(0.089)	(0.179)	(0.178)	(0.219)	(0.239)	(0.239)
β_2			-0.410			-0.191
			(0.129)			(0.161)
β_3			0.540			-0.239
			(0.200)			(0.324)
Constant	-0.068	0.341	0.341	-0.140	0.051	0.051
	(0.053)	(0.118)	(0.118)	(0.102)	(0.125)	(0.125)
Observations	48	47	95	48	45	93
R^2	0.426	0.007	0.711	0.146	0.200	0.637

Notes:
(i) Subjects' belief adjustments are defined as subjects' posteriors minus priors. Bayesian belief adjustments are defined as Bayesian posteriors minus subjects' priors.
(ii) Analysis uses OLS regressions with robust standard errors in parentheses.

A.2 Belief adjustments - excluding wrong and zero belief adjustments

In Table 2, I replicate the regression analysis of Table 2 in the paper, excluding belief adjustments in the wrong direction and zero belief adjustments.

Table 2: Belief adjustments - excluding wrong and zero belief adjustments

$$Beliefadjustment_i = \beta_0 + \beta_1 Bayesbeliefadj_i + \beta_2 Good\ news_i + \beta_3 Bayesbeliefadj_i * Good\ news_i + \epsilon_i$$

	No-Resolution			Resolution		
	Good news (1)	Bad news (2)	Diff-in-diff (3)	Good news (4)	Bad news (5)	Diff-in-diff (6)
β_1	0.625	-0.023	-0.023	0.459	0.775	0.775
	(0.095)	(0.176)	(0.176)	(0.226)	(0.240)	(0.240)
β_2			-0.584			-0.271
			(0.137)			(0.168)
β_3			0.648			-0.316
			(0.200)			(0.330)
Constant	-0.110	0.474	0.474	-0.185	0.085	0.085
	(0.067)	(0.120)	(0.120)	(0.107)	(0.129)	(0.129)
Observations	42	41	83	45	40	85
R^2	0.411	0.000	0.780	0.126	0.225	0.686

Notes:
(i) Subjects' belief adjustments are defined as subjects' posteriors minus priors. Bayesian belief adjustments are defined as Bayesian posteriors minus subjects' priors.
(ii) Analysis uses OLS regressions with robust standard errors in parentheses.

A.3 Belief adjustments - controlling for ranks

In Table 3, I replicate the regression analysis of Table 2 in the paper, controlling for subjects' ranks in the group.

Table 3: Belief adjustments - controlling for ranks

$$Beliefadjustment_i = \beta_0 + \beta_1 Bayesbeliefadj_i + \beta_2 Good\ news_i + \beta_3 Bayesbeliefadj_i * Good\ news_i + \epsilon_i$$

	No-Resolution			Resolution		
	Good news	Bad news	Diff-in-diff	Good news	Bad news	Diff-in-diff
	(1)	(2)	(3)	(4)	(5)	(6)
β_1	0.657	0.093	0.082	0.529	0.666	0.654
	(0.098)	(0.182)	(0.181)	(0.224)	(0.242)	(0.245)
β_2			-0.322			-0.038
			(0.171)			(0.190)
β_3			0.593			-0.124
			(0.199)			(0.324)
Rank	✓	✓	✓	✓	✓	✓
Constant	-0.022	0.152	0.259	-0.068	-0.387	-0.147
	(0.065)	(0.267)	(0.195)	(0.176)	(0.316)	(0.234)
Observations	50	50	100	50	50	100
R^2	0.420	0.012	0.647	0.125	0.175	0.536

Notes:
(i) Subjects' belief adjustments are defined as subjects' posteriors minus priors. Bayesian belief adjustments are defined as Bayesian posteriors minus subjects' priors.
(ii) Analysis uses OLS regressions with robust standard errors in parentheses.

A.4 Belief adjustments - controlling for IQ test scores

In Table 4, I replicate the regression analysis of Table 2 in the paper, controlling for subjects' IQ test scores.

Table 4: Belief adjustments - controlling for IQ test scores

$$Beliefadjustment_i = \beta_0 + \beta_1 Bayesbeliefadj_i + \beta_2 Good\ news_i + \beta_3 Bayesbeliefadj_i * Good\ news_i + \epsilon_i$$

	No-Resolution			Resolution		
	Good news	Bad news	Diff-in-diff	Good news	Bad news	Diff-in-diff
	(1)	(2)	(3)	(4)	(5)	(6)
β_1	0.574	0.031	0.040	0.525	0.647	0.638
	(0.123)	(0.191)	(0.185)	(0.225)	(0.269)	(0.264)
β_2			-0.568			-0.153
			(0.171)			(0.197)
β_3			0.470			-0.110
			(0.197)			(0.344)
Quiz score	✓	✓	✓	✓	✓	✓
Constant	-0.320	-0.010	0.055	-0.306	0.052	-0.002
	(0.261)	(0.172)	(0.143)	(0.288)	(0.218)	(0.173)
Observations	50	50	100	50	50	100
R^2	0.435	0.109	0.672	0.134	0.138	0.531

Notes:
(i) Subjects' belief adjustments are defined as subjects' posteriors minus priors. Bayesian belief adjustments are defined as Bayesian posteriors minus subjects' priors.
(ii) Analysis uses OLS regressions with robust standard errors in parentheses.

A.5 Belief adjustments - excluding rank 1 and rank 4

In Table 5, I replicate the regression analysis of Table 2 in the paper, excluding subjects who are ranked first or fourth in their reference group.

Table 5: Belief adjustments - excluding rank 1 and rank 4

$$Beliefadjustment_i = \beta_0 + \beta_1 Bayesbeliefadj_i + \beta_2 Good\ news_i + \beta_3 Bayesbeliefadj_i * Good\ news_i + \epsilon_i$$

	No-Resolution			Resolution		
	Good news	Bad news	Diff-in-diff	Good news	Bad news	Diff-in-diff
	(1)	(2)	(3)	(4)	(5)	(6)
β_1	0.579	0.046	0.046	0.453	0.526	0.526
	(0.145)	(0.198)	(0.198)	(0.431)	(0.244)	(0.244)
β_2			-0.460			-0.166
			(0.186)			(0.246)
β_3			0.533			-0.073
			(0.246)			(0.495)
Constant	-0.125	0.335	0.335	-0.177	-0.011	-0.011
	(0.109)	(0.151)	(0.151)	(0.208)	(0.131)	(0.131)
Observations	25	25	50	25	25	50
R^2	0.316	0.001	0.641	0.070	0.134	0.535

Notes:
(i) Subjects' belief adjustments are defined as subjects' posteriors minus priors. Bayesian belief adjustments are defined as Bayesian posteriors minus subjects' priors.
(ii) Analysis uses OLS regressions with robust standard errors in parentheses.

A.6 Ex-post rationalization - excluding wrong belief adjustments

In Table 6, I replicate the regression analysis of Table 3 in the paper, excluding subjects with belief adjustments in the wrong direction.

Table 6: Ex-post rationalization of information - excluding wrong belief adjustments

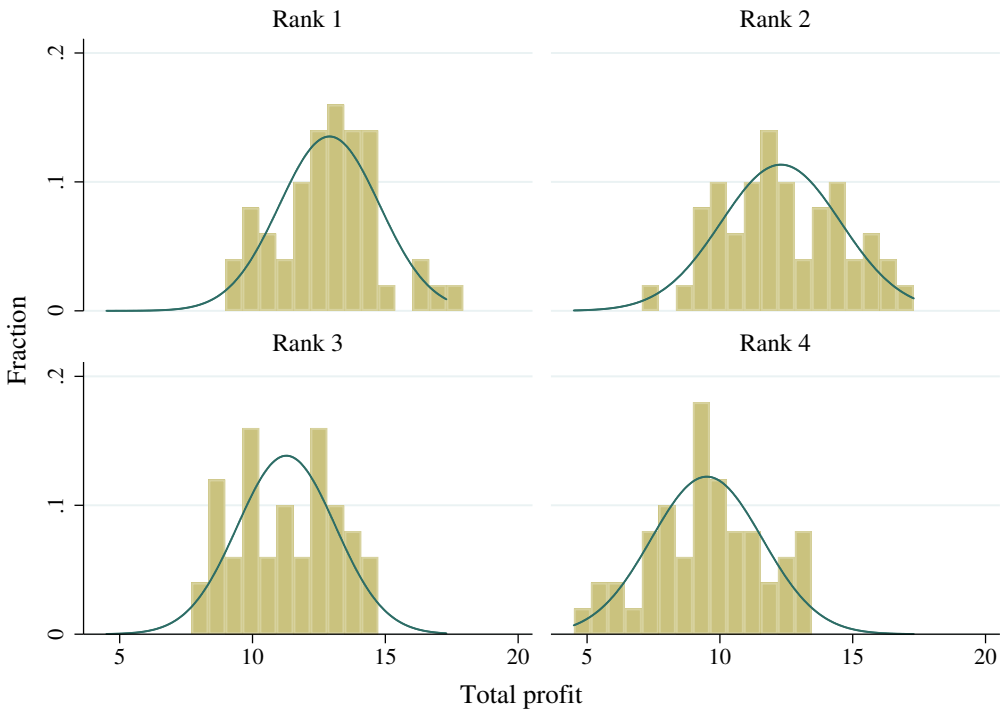
	No-Resolution		Resolution	
Dependent variable	Importance study performance	Importance job performance	Importance study performance	Importance job performance
	(1)	(2)	(3)	(4)
Good news	0.919	1.129	0.152	0.483
	(0.453)	(0.458)	(0.453)	(0.439)
IQ test score	-0.037	-0.114	0.036	-0.070
	(0.085)	(0.087)	(0.085)	(0.087)
Prior belief	-0.712	-1.207	-1.008	-0.939
	(0.424)	(0.430)	(0.363)	(0.355)
Observations	95	95	93	93
Pseudo R^2	0.034	0.054	0.032	0.026

Notes:
(i) Subjects' stated importance of the IQ test for study and job performance is measured on a seven-point Likert scale.
(ii) Analysis uses Ordered Logistic Regressions with standard errors in parentheses.

B Payments by ranks

Figure 2 shows the distribution of payments for each rank in the group.

Figure 2: Payments by ranks



C Experimental instructions

GENERAL INSTRUCTIONS (on paper)

Welcome to this experiment! Please read the instructions carefully.

At the end of the experiment, you will be paid in cash according to your decisions and the decisions of other participants. In addition, you will receive a fixed payment of 4 Euro for your punctual appearance. Please make sure that your mobile phone is switched off. During the experiment, it is not allowed to communicate with other participants, use mobile phones, or start other programs on the computer. If you violate this rule, we regrettably must exclude you from the experiment and all payments.

If you have questions, please raise your hand. A lab manager will then come to your place and answer your question quietly.

Belief elicitation instructions

During the experiment, you will give your estimates for the likelihood of four different scenarios of an event. The likelihood that you will report will influence your earnings. For each estimate, you can receive an additional payoff of 2 euros. The payoff mechanism is designed such that you have the highest chance of receiving an additional payoff of 2 euros when you report your best estimate.

In the following, we will explain the payoff mechanism in detail. We will use the event "average temperature in Germany in 2018" as an example. This example is for **illustrative purposes** only and will be replaced by another event in the experiment.

Assume in the following that there are four possible scenarios for the "average temperature in Germany in 2018", and that exactly one of the scenarios has occurred.

- Scenario A: The average temperature in Germany in 2018 was below 9 degrees Celsius.
- Scenario B: The average temperature in Germany in 2018 was at least 9 degrees Celsius and below 10 degrees Celsius.
- Scenario C: The average temperature in Germany in 2018 was at least 10 degrees Celsius and below 11 degrees Celsius.
- Scenario D: The average temperature in Germany in 2018 was over 11 degrees Celsius.

In the experiment, it would now be the task to give your assessment for the likelihood of the occurrence of each respective scenario. Since only one of these scenarios has occurred, the sum of the probabilities adds up to 100%.

After you have made your assessment for the different scenarios, the computer will randomly select exactly **one scenario** as payoff relevant. This selection is random and does not mean that this scenario occurred.

The computer then randomly selects **a number X between 0 and 100**. The probability to be selected is equal for each number.

Payoff:

- If your specified likelihood for the selected scenario is at least as high as the number X, then you will receive 2 Euros if the scenario has occurred.
- If, on the other hand, your specified likelihood is lower than the number X, then you receive 2 euros with a probability of X%.

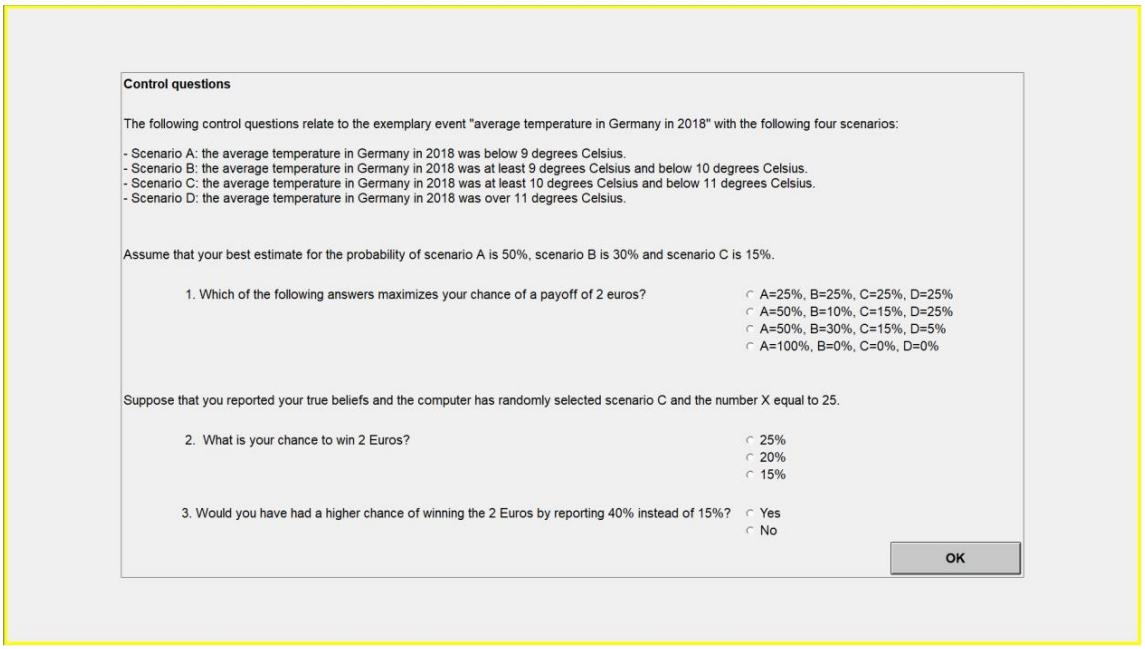
According to these rules, it is always beneficial for you to report the likelihood that you truly believe.

For example, assume that your true estimate for the probability of scenario A is 50% and you specify a probability of 30%. Then it can happen that the computer selects scenario A for the payout and the number 40 is taken for X. In this case, your probability of winning 2 Euros is 40%. If you had entered 50%, you would, according to your true estimate, win the 2 euros with a probability of 50% - exactly when scenario A occurred.

Control questions:

In order to increase your understanding of the payoff mechanism, we now ask you to answer some control questions on screen. Therefore, we will use the example above, "Average temperature in Germany in 2018". Your answers to these questions will not affect your payouts in the experiment. However, we will not proceed to the next phase of the experiment until all participants have answered the questions correctly. You may keep this leaflet during the experiment.

INSTRUCTIONS (on screen)



Control questions

The following control questions relate to the exemplary event "average temperature in Germany in 2018" with the following four scenarios:

- Scenario A: the average temperature in Germany in 2018 was below 9 degrees Celsius.
- Scenario B: the average temperature in Germany in 2018 was at least 9 degrees Celsius and below 10 degrees Celsius.
- Scenario C: the average temperature in Germany in 2018 was at least 10 degrees Celsius and below 11 degrees Celsius.
- Scenario D: the average temperature in Germany in 2018 was over 11 degrees Celsius.

Assume that your best estimate for the probability of scenario A is 50%, scenario B is 30% and scenario C is 15%.

1. Which of the following answers maximizes your chance of a payoff of 2 euros?
   - A=25%, B=25%, C=25%, D=25%
   - A=50%, B=10%, C=15%, D=25%
   - A=50%, B=30%, C=15%, D=5%
   - A=100%, B=0%, C=0%, D=0%

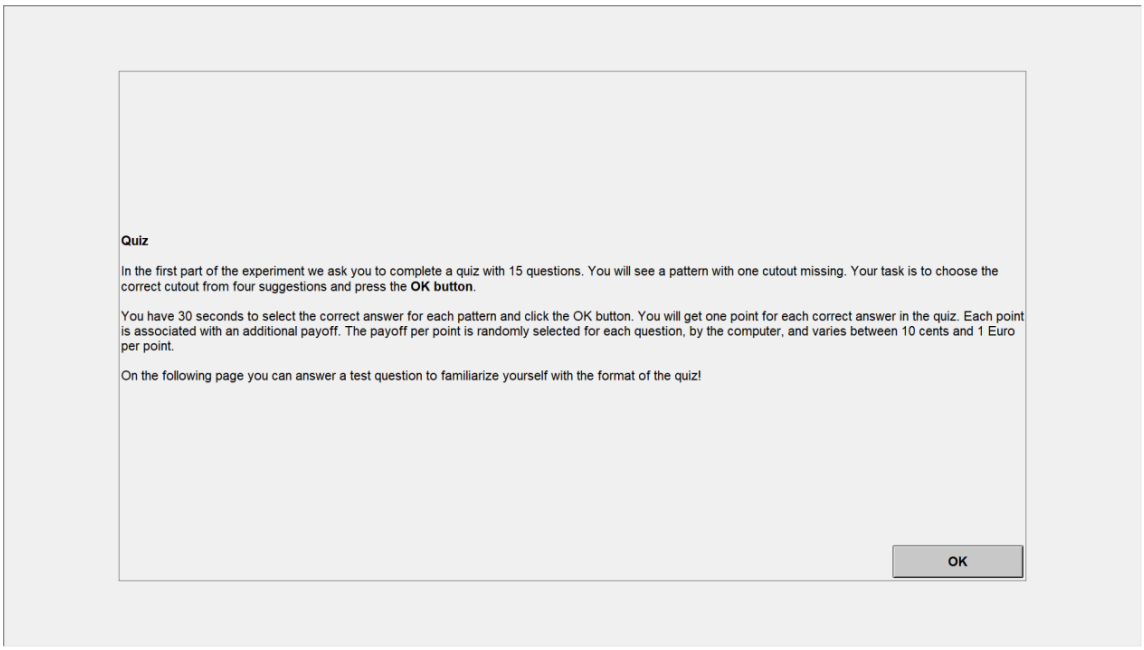
Suppose that you reported your true beliefs and the computer has randomly selected scenario C and the number X equal to 25.

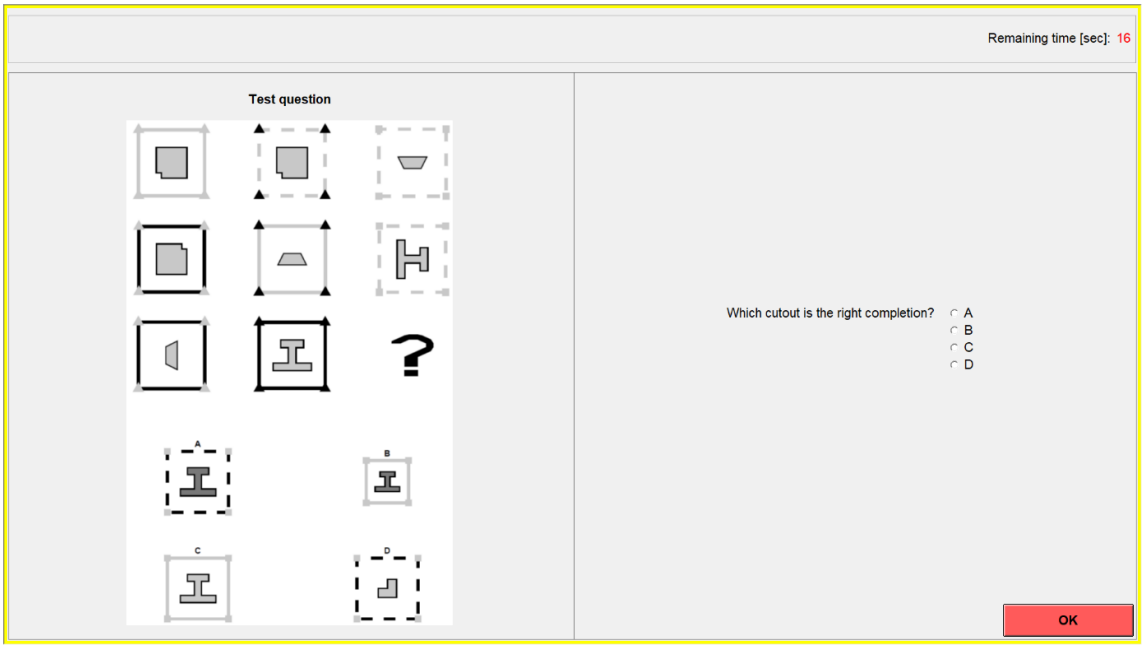
2. What is your chance to win 2 Euros?
   - 25%
   - 20%
   - 15%

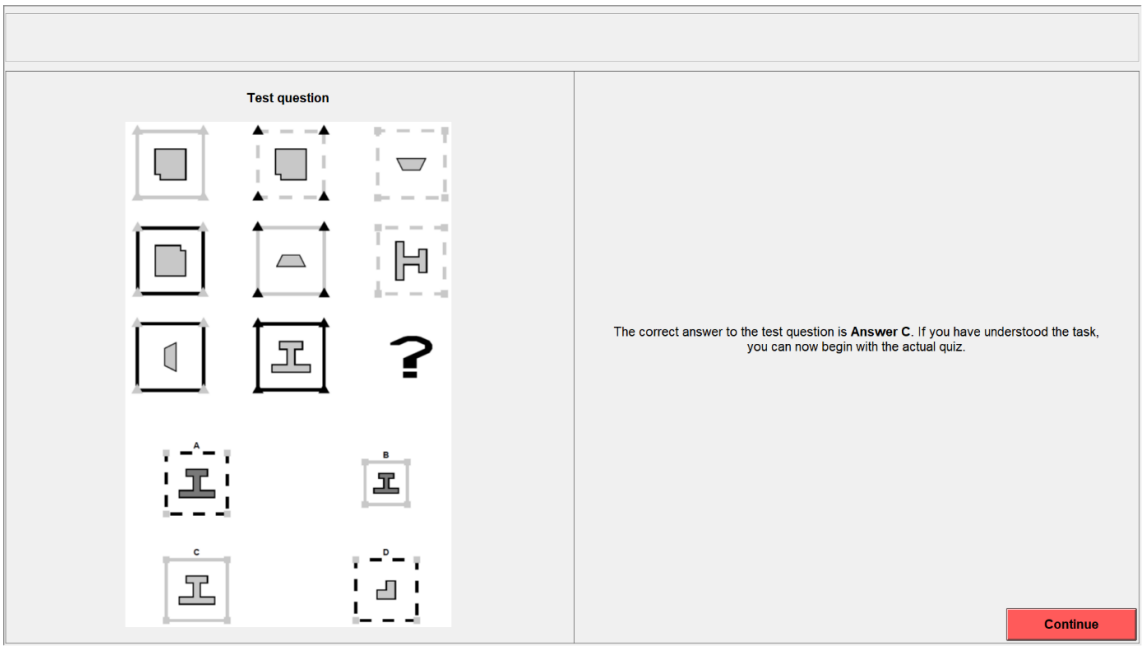
3. Would you have had a higher chance of winning the 2 Euros by reporting 40% instead of 15%?
   - Yes
   - No

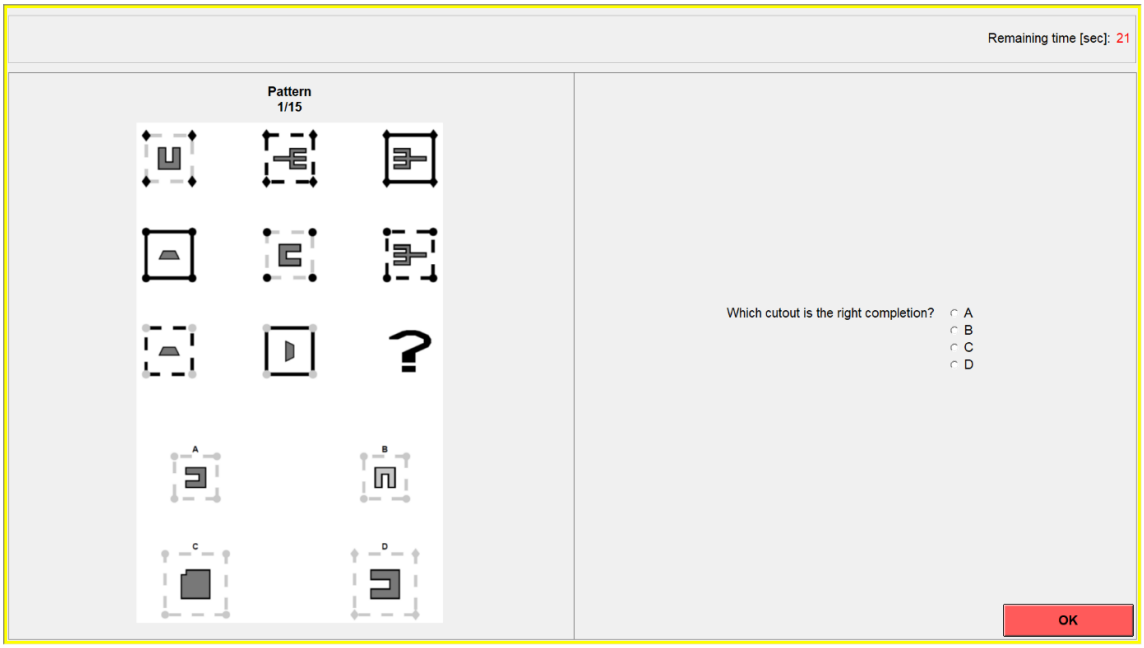
OK

QUIZ STAGE

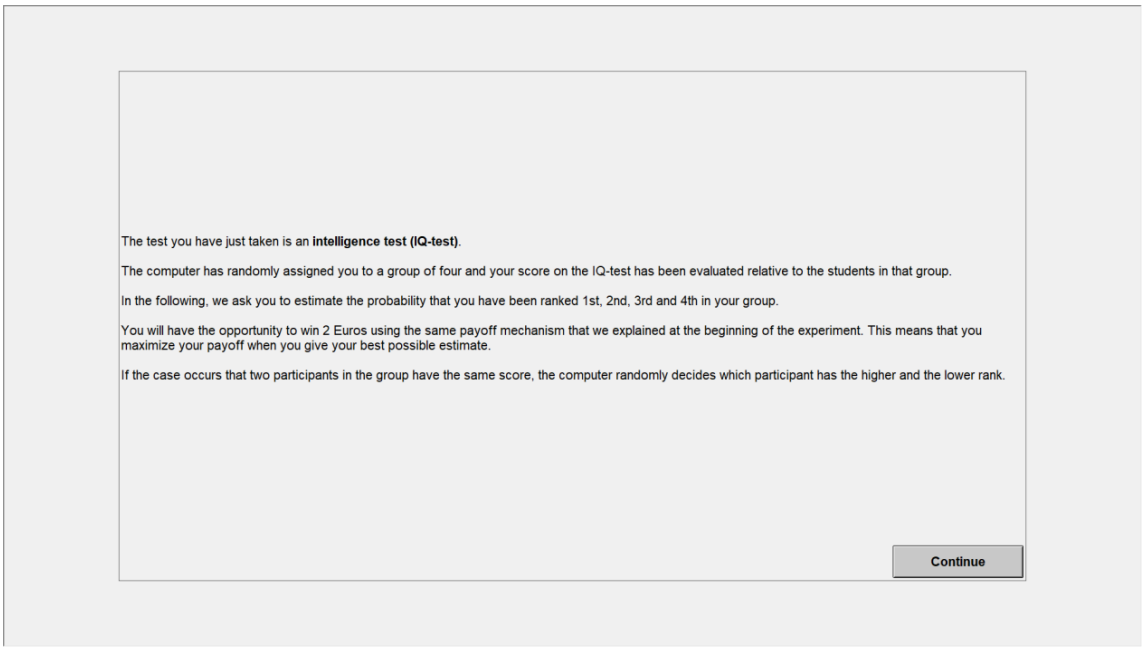

Quiz
In the first part of the experiment we ask you to complete a quiz with 15 questions. You will see a pattern with one cutout missing. Your task is to choose the correct cutout from four suggestions and press the OK button.
You have 30 seconds to select the correct answer for each pattern and click the OK button. You will get one point for each correct answer in the quiz. Each point is associated with an additional payoff. The payoff per point is randomly selected for each question, by the computer, and varies between 10 cents and 1 Euro per point.
On the following page you can answer a test question to familiarize yourself with the format of the quiz!
OK

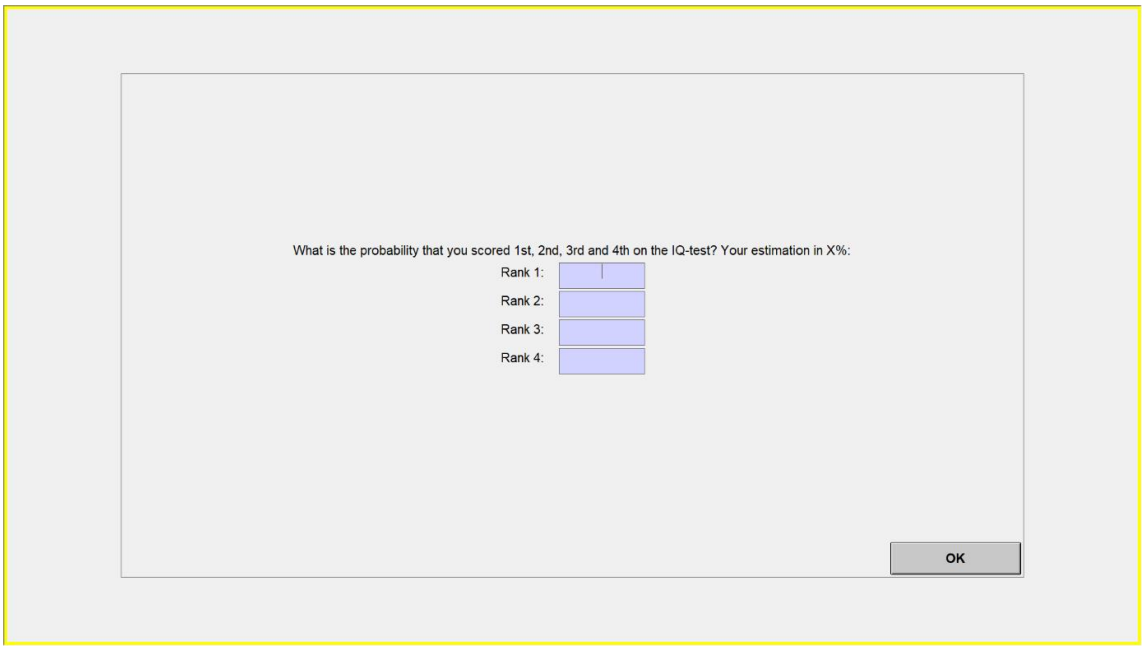

Remaining time [sec]: 16
Test question
Which cutout is the right completion?
A
B
C
D
OK


Test question
A
B
C
D
The correct answer to the test question is **Answer C**. If you have understood the task, you can now begin with the actual quiz.
Continue

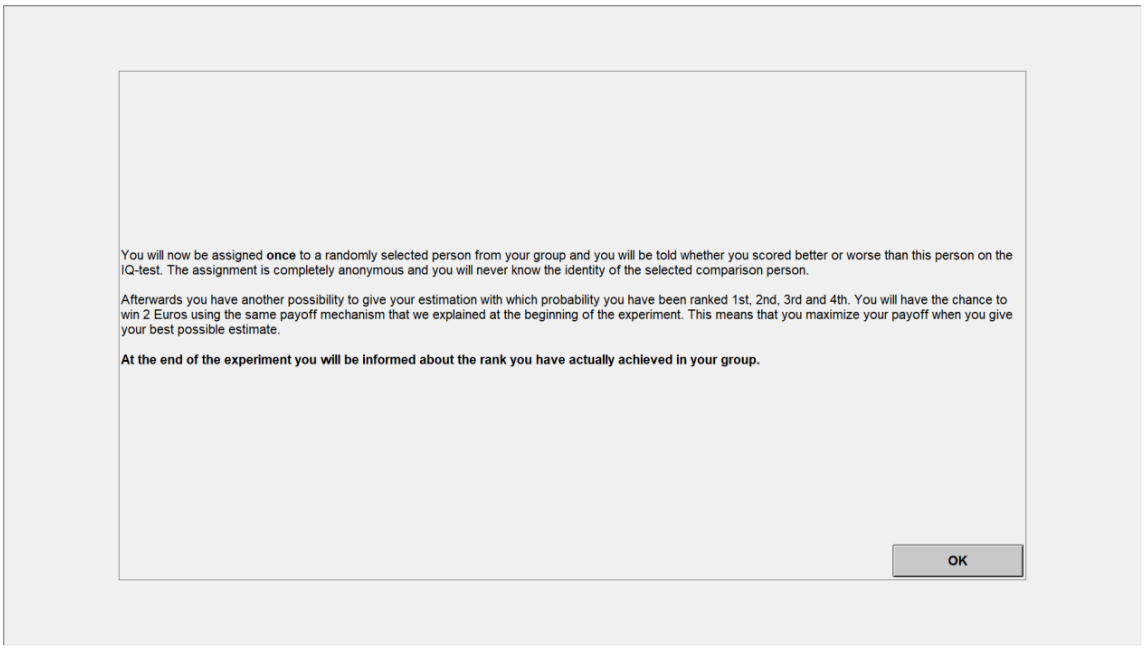

Remaining time [sec]: 21
Pattern
1/15
A
B
C
D
Which cutout is the right completion?
A
B
C
D
OK

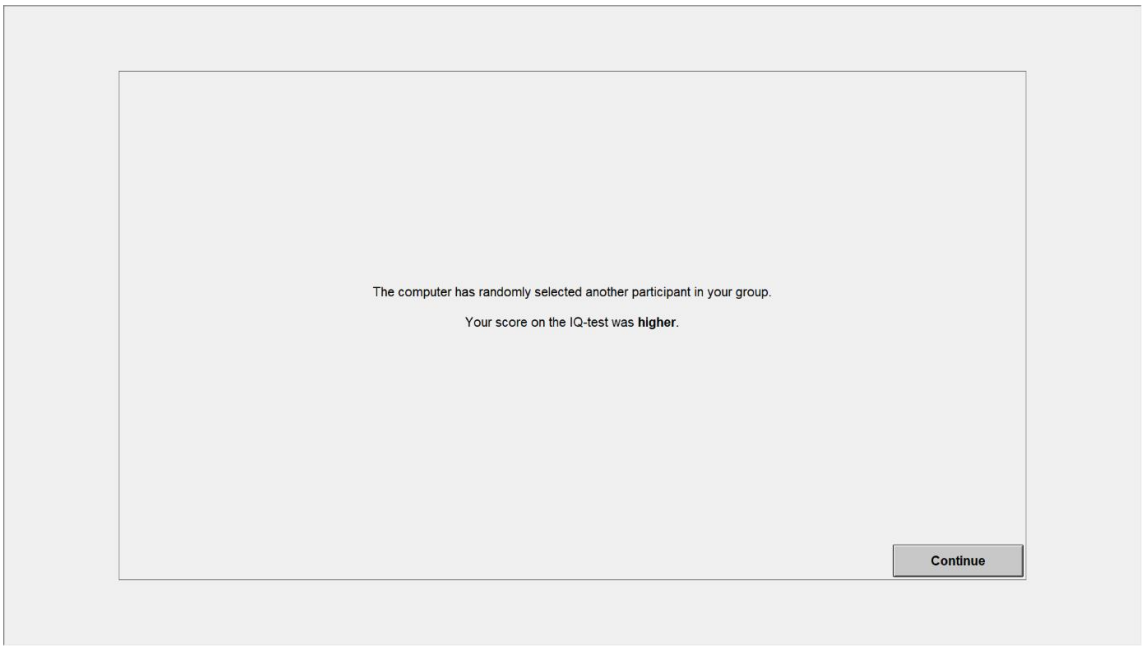
PRIOR BELIEF ELICITATION

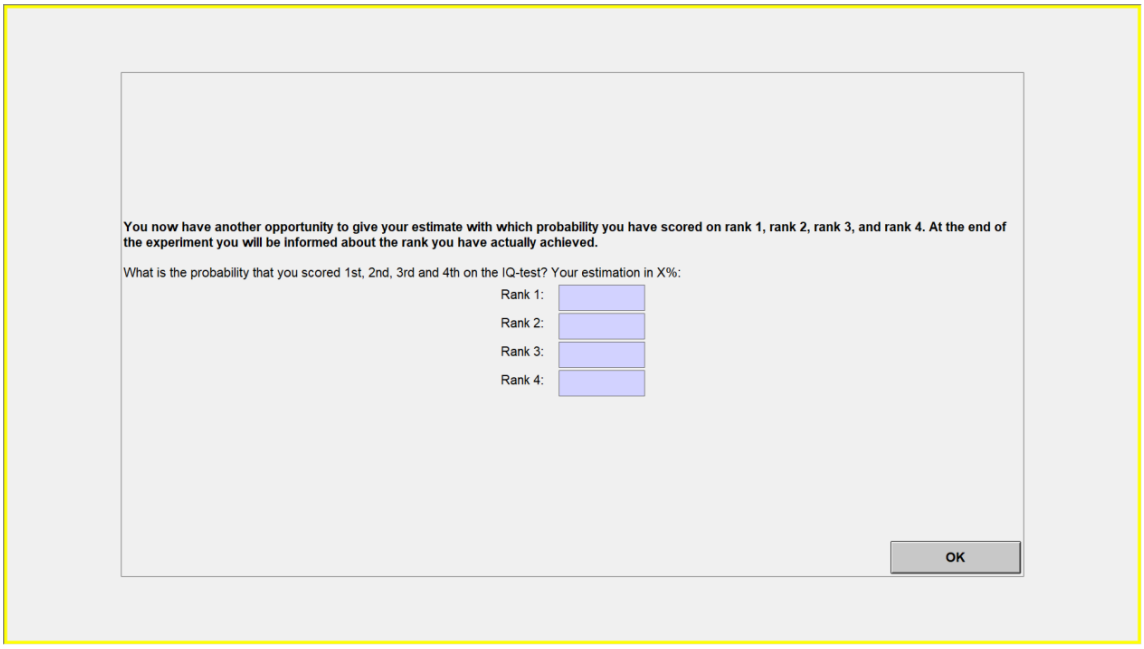




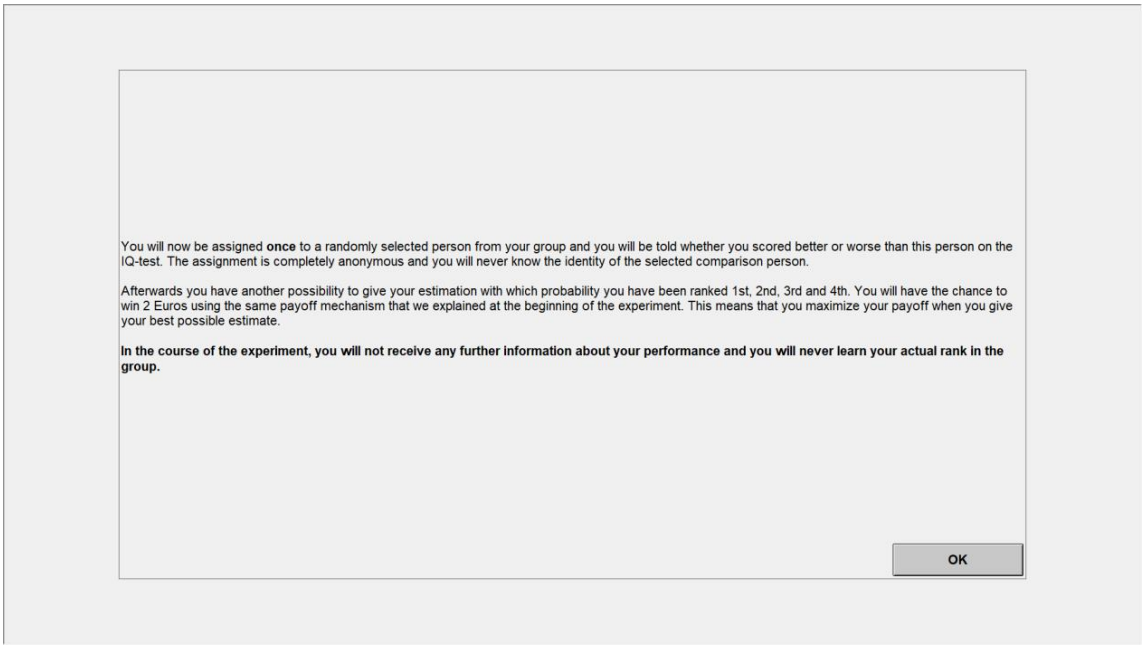
FEEDBACK STAGE AND POSTERIOR BELIEF ELICITATION (RESOLUTION-TREATMENT)

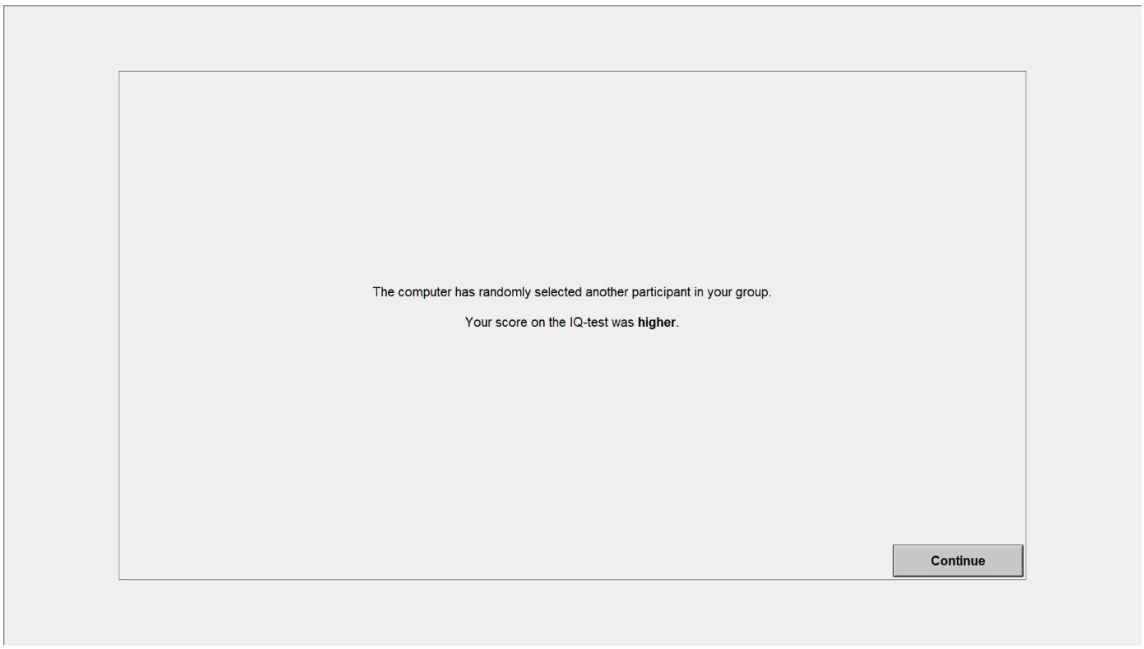


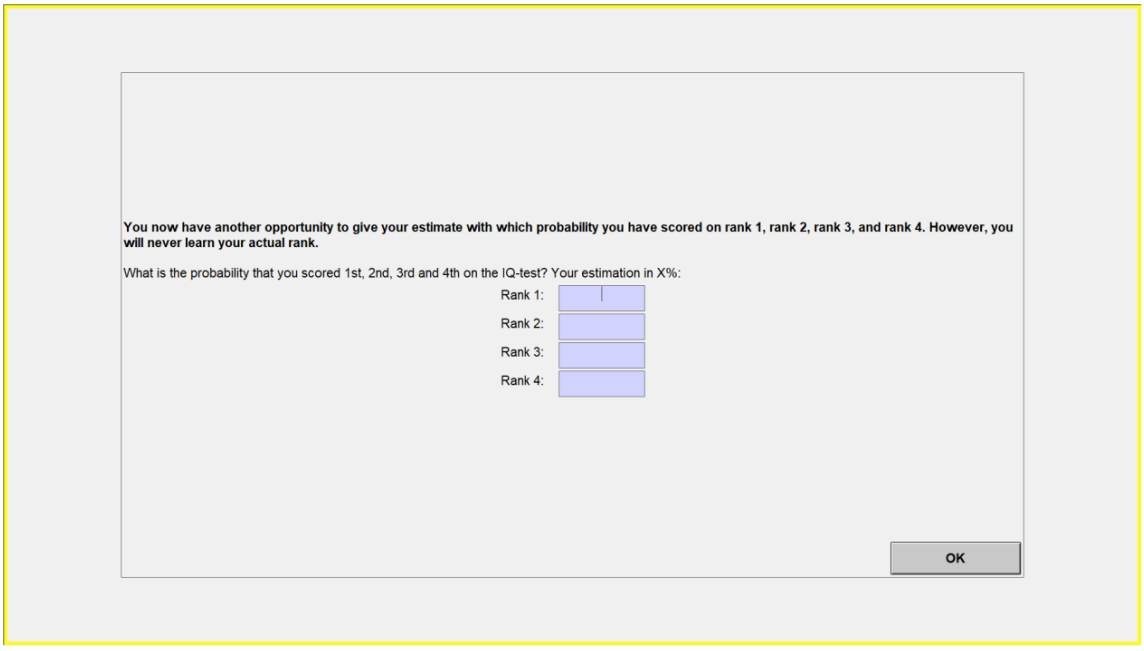




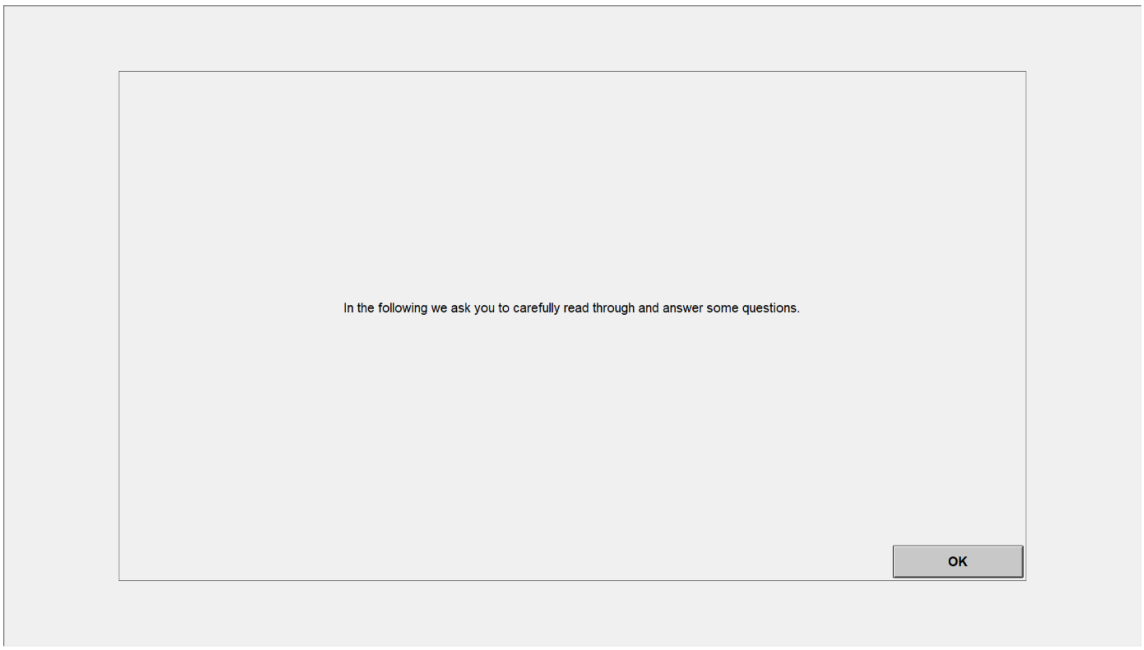
FEEDBACK STAGE AND POSTERIOR BELIEF ELICITATION (NO-RESOLUTION-TREATMENT)

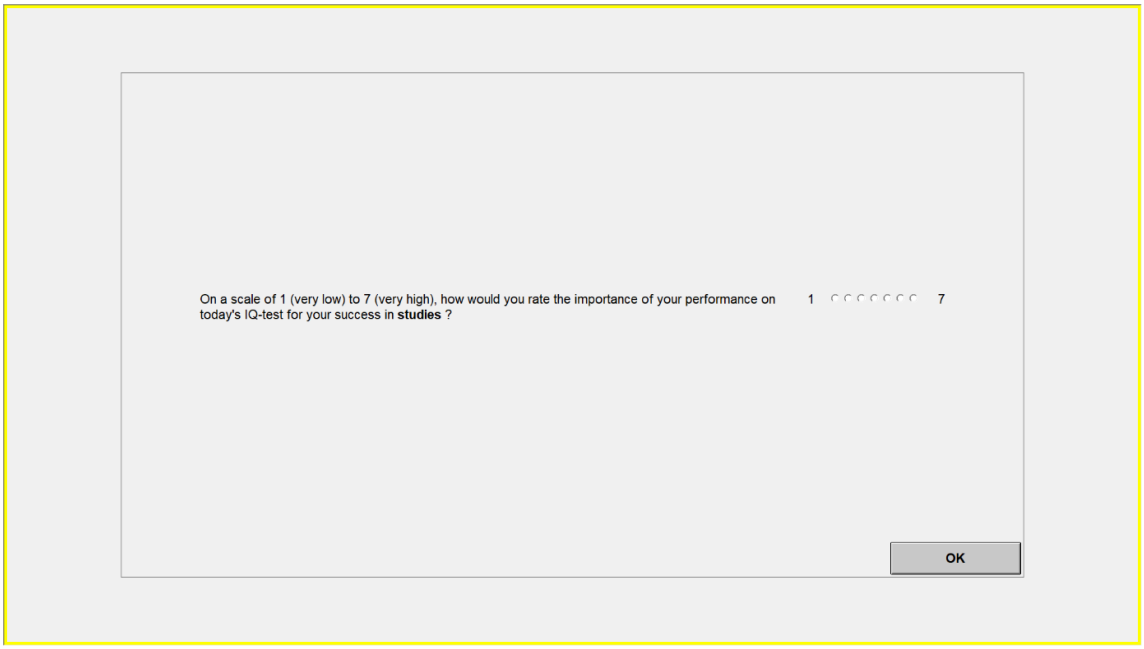


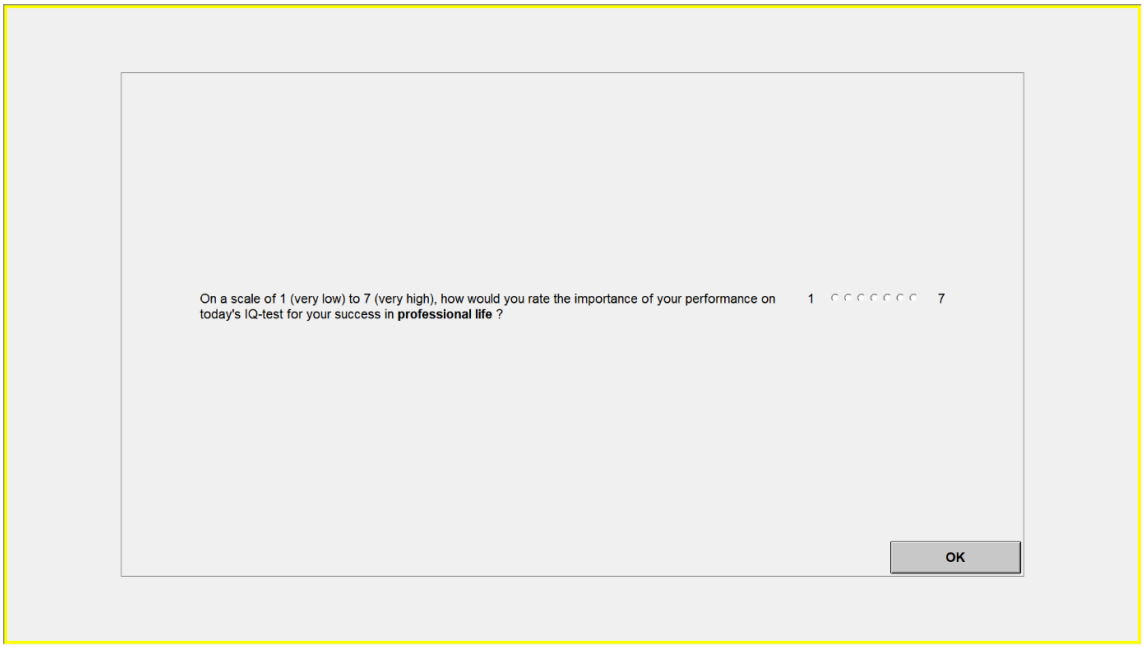

The computer has randomly selected another participant in your group.
Your score on the IQ-test was **higher**.
Continue


You now have another opportunity to give your estimate with which probability you have scored on rank 1, rank 2, rank 3, and rank 4. However, you will never learn your actual rank.
What is the probability that you scored 1st, 2nd, 3rd and 4th on the IQ-test? Your estimation in X%:
Rank 1:
Rank 2:
Rank 3:
Rank 4:
OK

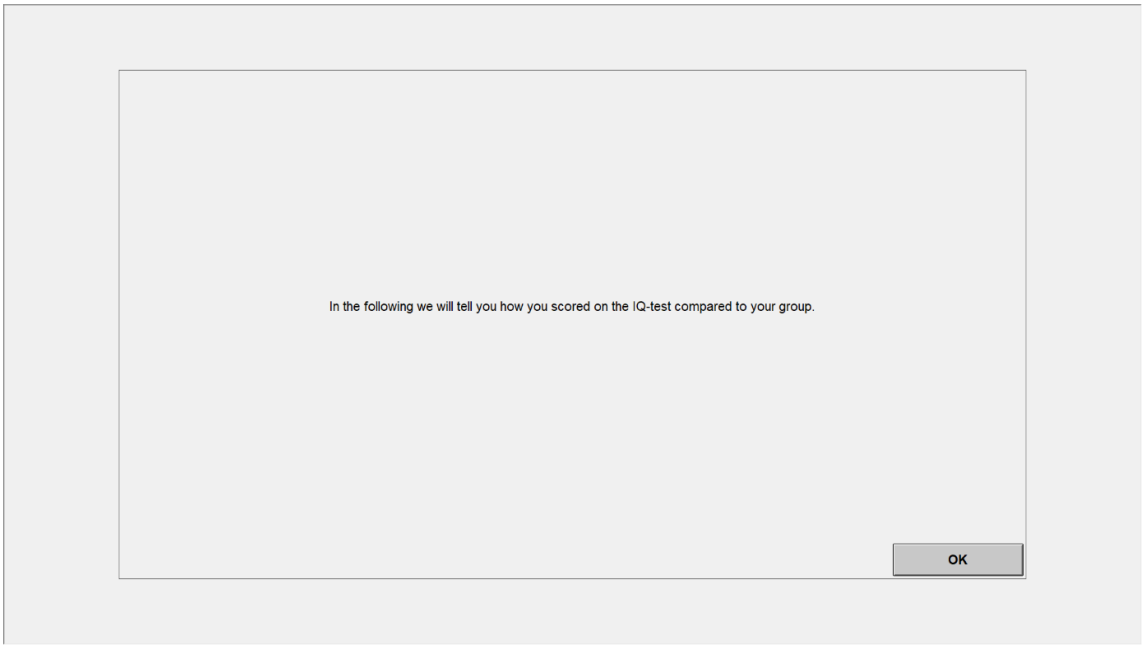
QUESTIONNAIRE

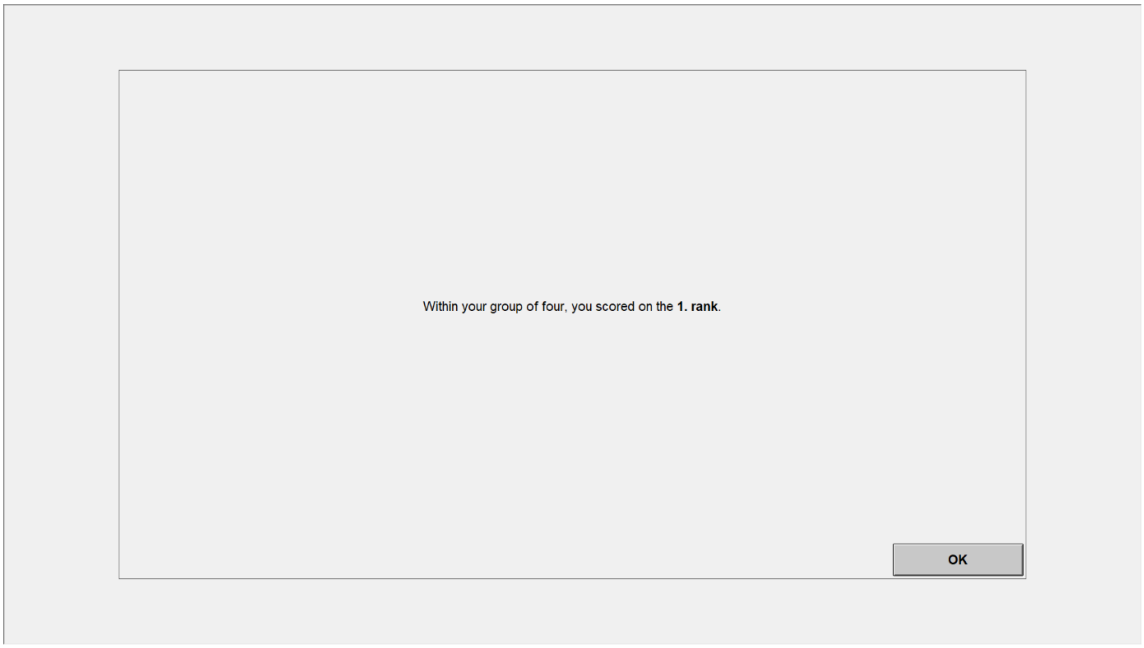




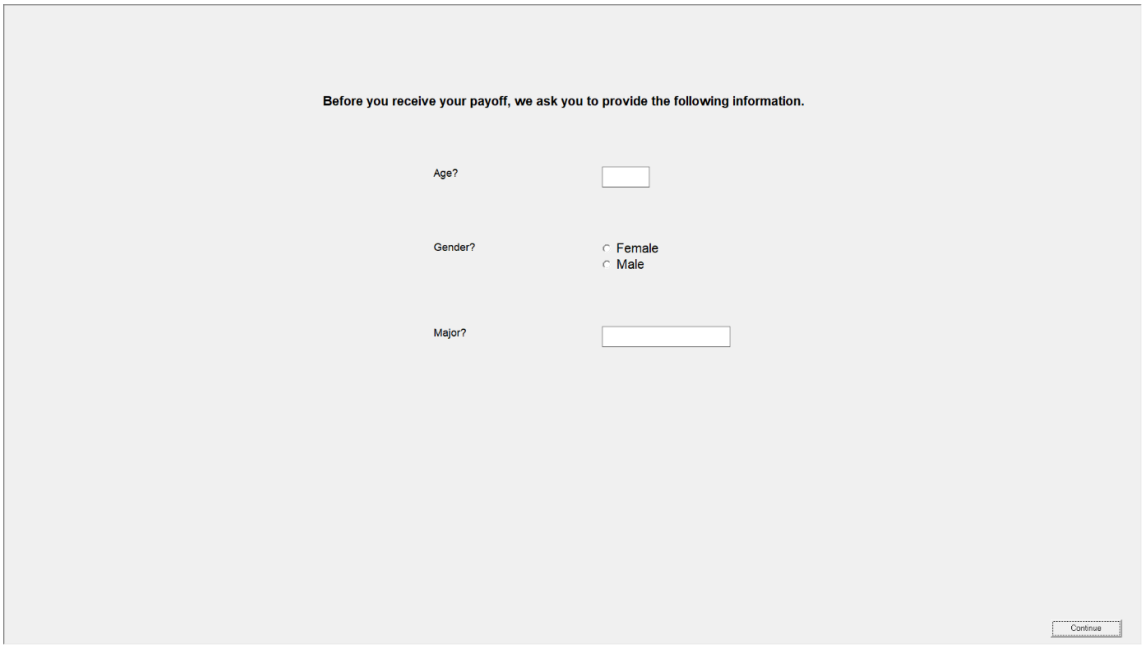


RESOLUTION OF TRUE RANK (RESOLUTION-TREATMENT)





DEMOGRAPHICS AND PAYOFF



Thank you very much for your participation in the experiment!

Your payoff in the experiment is 11.60 Euro.

Please fill out the receipt. As soon as your PC number is called up by the laboratory manager, you can collect your payoff by handing in the receipt, the instructions and the PC number.