Are Men Less Generous to a Smarter Woman? Evidence from a Dictator Game Experiment
Online Appendix

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A   Deviations from the Pre-Analysis Plan

A.1   Implementation

In the initial design, receivers finished all the tasks except the post-questionnaire and left the laboratory before dictators received their IQ rank so that dictators could play the dictator game without receivers in the same room. The allocation to the receivers was paid electronically as a "participation fee" for the online post-questionnaire, which was sent to receivers via email after the session was over. However, as I ran the 1st session with this initial design with 24 participants, dictators had to wait idly for about 20-30 minutes until receivers left the laboratory, and dictators seemed to have lost concentration during this waiting time: about half of the dictators could not answer the comprehension questions about their IQ rank. Thus, I changed the design and let receivers stay in the laboratory while dictators played the dictator game. I looked at the 1st session data before making this change. I exclude the 1st session data in the analysis, but results are robust to including the 1st session data. The oTree code and instructions used for the 1st session are available upon request.

I also made the following changes after the 1st session:

1. I reduced participation fee from 3€ to 2.5€ because participants earned more than I expected in the IQ test.
2. I added more explanation to the instructions on how the IQ rank was assigned and how to allocate endowment in the dictator game.
3. I asked participants' major by simply choosing among the choices from humanities, social sciences, natural sciences/mathematics, medicine, and engineering and letting them type in their degree program name for a check, instead of letting them access to the University of Bologna's degree program website. This is because the computers in the laboratory sometimes did not accept `iframe` or prevented a pop-up to another website due to the security setting.

A.2 Other Changes

1. I mainly discussed results for question 3.
2. I corrected the definition of $Lower_{ij}$. Consequently, I renamed it as $IQHigher_{ij}$ to make the meaning clearer.
3. I added distributional analysis (in Figure 2) to examine whether the results hold also in distribution.
4. I added round-by-round analysis in Figure 4.
5. I used `lm_robust` instead of `vcovCR` to apply Pustejovsky and Tipton (2018)'s small cluster bias adjustment because `vcovCR` did not make degrees of freedom adjustment.
6. I included in female and male dictator regressions STEM major dummy and Emilia-Romagna dummy because excluding them in regressions where the sample is conditioned by gender made little sense. The results are invariant to the exclusion of these covariates.
7. I divided dictator allocations by dictator endowment to facilitate the interpretation of the regression results (this does not affect my results because of the round fixed effects).

A.3 Follow-Up Experiment

The follow up experiment was not pre-registered. Thus, the robustness check where I control for the receivers' attractiveness was not pre-registered either.

B Data Description

Table B1 describes dictators' own (panel A) and paired receivers' characteristics (panel B) as well as dictators' social distance with paired receivers (panel C) and dictator game allocation (panel D), separately for male and female dictators.

Panel A shows that male dictators solve 0.37 more IQ questions (out of 9) than female dictators, but the difference is quantitatively insignificant. Also, male dictators are less likely to major in humanities and more likely to major in science, technology, engineering, and mathematics (STEM), consistent with the pattern observed in most OECD countries (see, for example, Carrell, Page, and West 2010). In addition, male dictators are more overconfident than female dictators, consistent with other studies (Bertrand 2011; Croson and Gneezy 2009; Niederle and Vesterlund 2011). Further, male dictators are less likely to have completed undergraduate studies than female dictators, consistent with that women are more educated than men in OECD countries (see, for example, Almås et al. 2016; Autor and Wasserman 2013).

Panel B shows that paired receivers' characteristics are roughly balanced, except that male dictators are 10% less likely to be paired with receivers from the Emilia-Romagna region where the experiment was conducted. I control this imbalance in the analysis. The attractiveness/kindness is a median of the attractiveness/kindness ratings by male participants in the followup experiment for male dictators and by female participants for female dictators (the median ratings per receiver is 9, the minimum is 4, the maximum is 14, the mean is 8.66, and the standard deviation is 1.84). There

are some differences in men's and women's perception of attractiveness and kind-lookingness of the receivers, although the differences are not quantitatively significant.

Panel C shows that dictators do not know 95-98% of the paired receivers at all, addressing the concern that dictator game allocation is driven by relationships outside the laboratory. Panel D shows that male dictators allocate six percentage points less than female dictators.

Finally, the standard deviation of the residualized allocation in Panel D shows that there is enough variation in the dictator game allocation after adding dictator-IQ fixed effects, which I exploit in the analysis.[1]

Figures B1 and B2 elaborate Panel D of Table B1. Panel A of Figure B1 plots empirical cumulative distribution functions (CDFs) of dictator allocations separately for male (blue, solid line) and female (green, dashed line) dictators. Consistent with the literature, male dictators allocate less than female dictators up to the 50% split, but after that, there is no noticeable differences between them, consistent with Bilén, Dreber, and Johannesson (2021). Also, the mean effect size is moderate, about 6.3 percentage points, again consistent with Bilén, Dreber, and Johannesson. The overall pattern is similar to that of Bohnet and Frey (1999)'s one-way identification with information treatment where the social distance between dictators and receivers is the closest to my setting.

Panel B of Figure B1 plots empirical CDFs of dictator allocations separately for male (blue, solid line) and female (green, dashed line) receivers. Dictators allocate more to female receivers than to male receivers, consistent with the literature, but the difference is modest (2.4 percentage points). Figure B2 plots the same empirical CDFs separately for male (Panel A) and female (Panel B) dictators and shows that male dictators allocate more to female receivers than to male receivers than female dictators do, consistent with the literature.

Figure B3 elaborate Panel B of Table B1. Panel A plots median attractiveness ratings by male participants by receivers' gender and IQ and Panel B plots the same but by female participants. Panels A and B show that both men and women consider that women look more attractive than men, regardless of their IQ level. On the other hand, Panels C and D show that whether a given person look more kind than other people does not depend on their gender or IQ level.

C Description of Covariates

X_{ij} in equation 1 includes the following variables:

Dictator characteristics

- $Age_i \in \mathbb{N}$: dictator i's age.
- $FromEmiliaRomagna_i \in \{0,1\}$: an indicator variable equals 1 if dictator i is from the Emilia-Romagna region where the experiment was conducted, 0 otherwise.
- $SocialSciences_i \in \{0,1\}$: an indicator variable equals 1 if dictator i majors in social sciences, 0 otherwise.
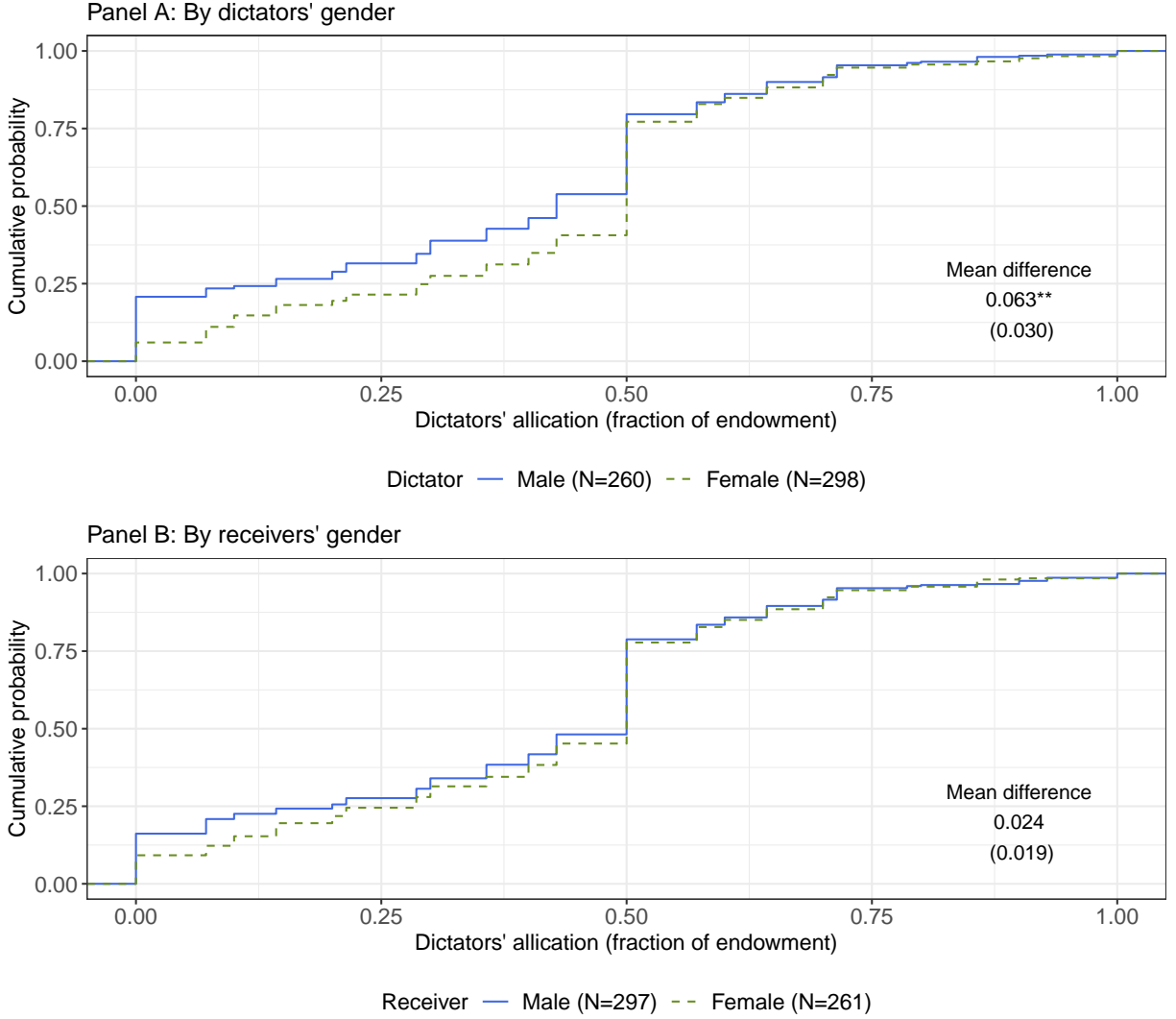
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1. The residualized allocation is the residual from regressing the dictator game allocation on dictator-IQ fixed effects.

Table B1: Dictators' and paired receivers' characteristics, proximity between dictators and paired receivers, and dictator game allocation

	Male dictators		Female dictators		Difference (Male – Female)		
	Mean	SD	Mean	SD	Mean	SE	P-value
Panel A: Own characteristics							
IQ level	6.89	1.24	6.52	1.20	0.37	0.18	0.04
IQ rank	3.31	1.73	3.83	1.59	-0.52	0.24	0.03
Age	23.23	2.81	23.68	2.62	-0.45	0.39	0.25
From Emilia-Romagna	0.19	0.39	0.18	0.39	0.00	0.06	0.94
Humanities	0.32	0.47	0.58	0.50	-0.26	0.07	0.00
Social sciences	0.24	0.43	0.15	0.36	0.09	0.06	0.13
STEM	0.44	0.50	0.27	0.45	0.17	0.07	0.01
Post bachelor	0.37	0.49	0.53	0.50	-0.16	0.07	0.03
Overconfidence	0.56	0.72	0.31	0.78	0.25	0.11	0.02
Time on feedback (sec.)	107.52	102.26	107.67	89.88	-0.16	13.88	0.99
Observations	91		104				
Panel B: Paired receivers' characteristics							
IQ level	6.91	1.12	6.77	1.19	0.14	0.09	0.11
IQ rank	3.45	1.74	3.39	1.75	0.05	0.10	0.61
Higher IQ	0.48	0.50	0.57	0.50	-0.09	0.05	0.08
Age	23.55	2.98	23.17	2.57	0.37	0.24	0.12
Female	0.43	0.50	0.50	0.50	-0.07	0.04	0.06
From Emilia-Romagna	0.25	0.43	0.15	0.36	0.09	0.04	0.01
Attractiveness (1-5)	2.62	0.73	2.37	0.74	0.25	0.07	0.00
Kind-lookingness (1-5)	3.14	0.57	3.27	0.50	-0.13	0.05	0.01
Observations	260		298				
Panel C: Social distance with paired receivers							
Did not know at all	0.95	0.23	0.98	0.15	-0.03	0.02	0.14
Saw before	0.03	0.18	0.02	0.15	0.01	0.02	0.48
Knew but not well	0.02	0.14	0.00	0.00	0.02	0.01	0.06
Observations	260		298				
Panel D: Dictator game allocation (fraction of endowment)							
Allocation	0.37	0.25	0.43	0.22	-0.06	0.03	0.04
Allocation (residualized)	-0.03	0.25	0.03	0.22	-0.06	0.03	0.06
Observations	260		298				

Notes: This table shows dictators' own (panel A) and paired receivers' characteristics (panel B) as well as dictators' social distance with paired receivers (panel C) and dictator game allocation (panel D), separately for male and female dictators. Residualized allocation is residual from the regression of the dictator game allocation as a fraction of endowment on IQ fixed effects and shows within dictator IQ variation. P-values for the difference between male and female dictators are calculated with heteroskedasticity-robust standard errors with Bell and McCaffrey (2002)'s small sample bias adjustment for Panel A and with Pustejovsky and Tipton (2018)'s small cluster bias adjustment for Panels B-D. Attractiveness and kindness are the medians of the attractiveness/kindness ratings by male participants in the followup experiment for male dictators and by female participants for female dictators.
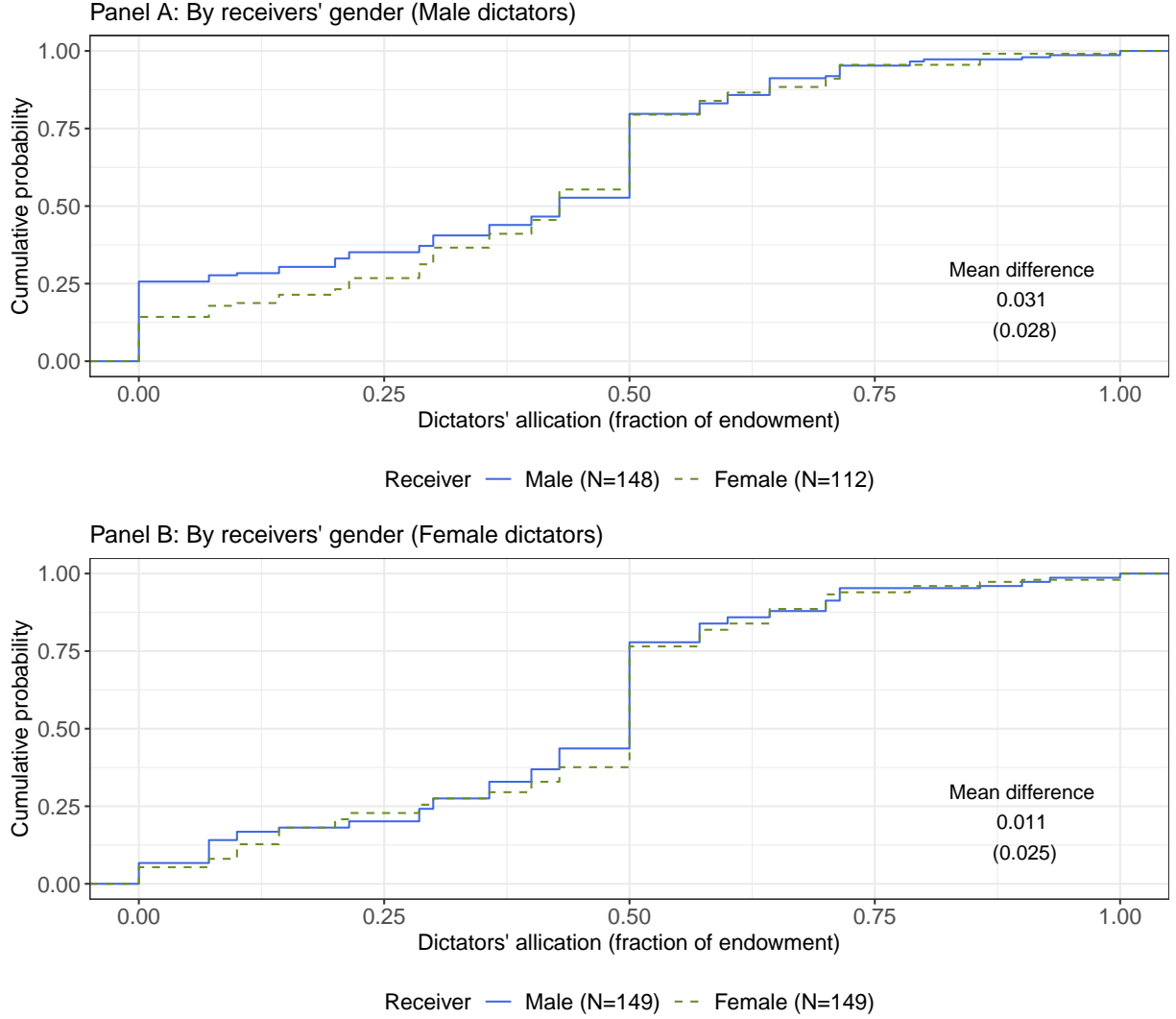
Figure B1: Distribution of the dictator allocations by dictators' and receivers' gender

Panel A: By dictators' gender

Dictator — Male (N=260) ‑ ‑ Female (N=298)

Panel B: By receivers' gender

Receiver — Male (N=297) ‑ ‑ Female (N=261)

Notes: Panel A plots empirical cumulative distribution functions (CDFs) of dictator allocations separately for male (blue, solid line) and female (green, dashed line) dictators. Panel B plots empirical CDFs of dictator allocations separately for male (blue, solid line) and female (green, dashed line) receivers. Significance levels: * 10%, ** 5%, and *** 1%. The significance level of the mean difference is calculated with standard errors with with Pustejovsky and Tipton (2018)'s small cluster bias adjustment.

- $STEM_i \in \{0, 1\}$: an indicator variable equals 1 if dictator i majors in natural sciences/mathematics, engineering, or medicine; 0 otherwise.
- $PostBachelor_i \in \{0, 1\}$: an indicator variable equals 1 if dictator i is either a master or post-bachelor student, a student in the 4th year or beyond in a bachelor-master combined program (bachelor is a 3 year program in Italy), or PhD student, 0 otherwise.
- $OverConfidence_i \in \{-1, 0, 1\}$: degree of dictator i's overconfidence. It is equal to -1 if dictator i's guess about the number of IQ test questions they have solved correctly is lower than the actual number, 0 if equal to the actual number, and 1 if higher than the actual

Figure B2: Distribution of the dictator allocations by dictators' and receivers' gender

Panel A: By receivers' gender (Male dictators)

Receiver —— Male (N=148) - - Female (N=112)

Panel B: By receivers' gender (Female dictators)

Receiver —— Male (N=149) - - Female (N=149)

Notes: Panel A plots empirical CDFs of male-dictator allocations separately for male (blue, solid line) and female (green, dashed line) receivers. Panel B plots empirical CDFs of female-dictator allocations separately for male (blue, solid line) and female (green, dashed line) receivers. Significance levels: * 10%, ** 5%, and *** 1%. The significance level of the mean difference is calculated with standard errors with with Pustejovsky and Tipton (2018)'s small cluster bias adjustment.

number.

receiver characteristics

- $Age_j \in \mathbb{N}$: receiver j's age.
- $FromEmiliaRomagna_j \in \{0,1\}$: an indicator variable equals 1 if receiver j is from the Emilia-Romagna region where the experiment was conducted, 0 otherwise.

Fixed effects

- $\sum_{k=2}^{3} \theta_k^{round} \mathbb{1}[\text{round}_{ij} = k]$: fixed effects for dictator game or belief elicitation round. $\mathbb{1}$ is the indicator variable.

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Figure B3: Attractiveness and Kind-lookingness rating by receivers' gender and IQ
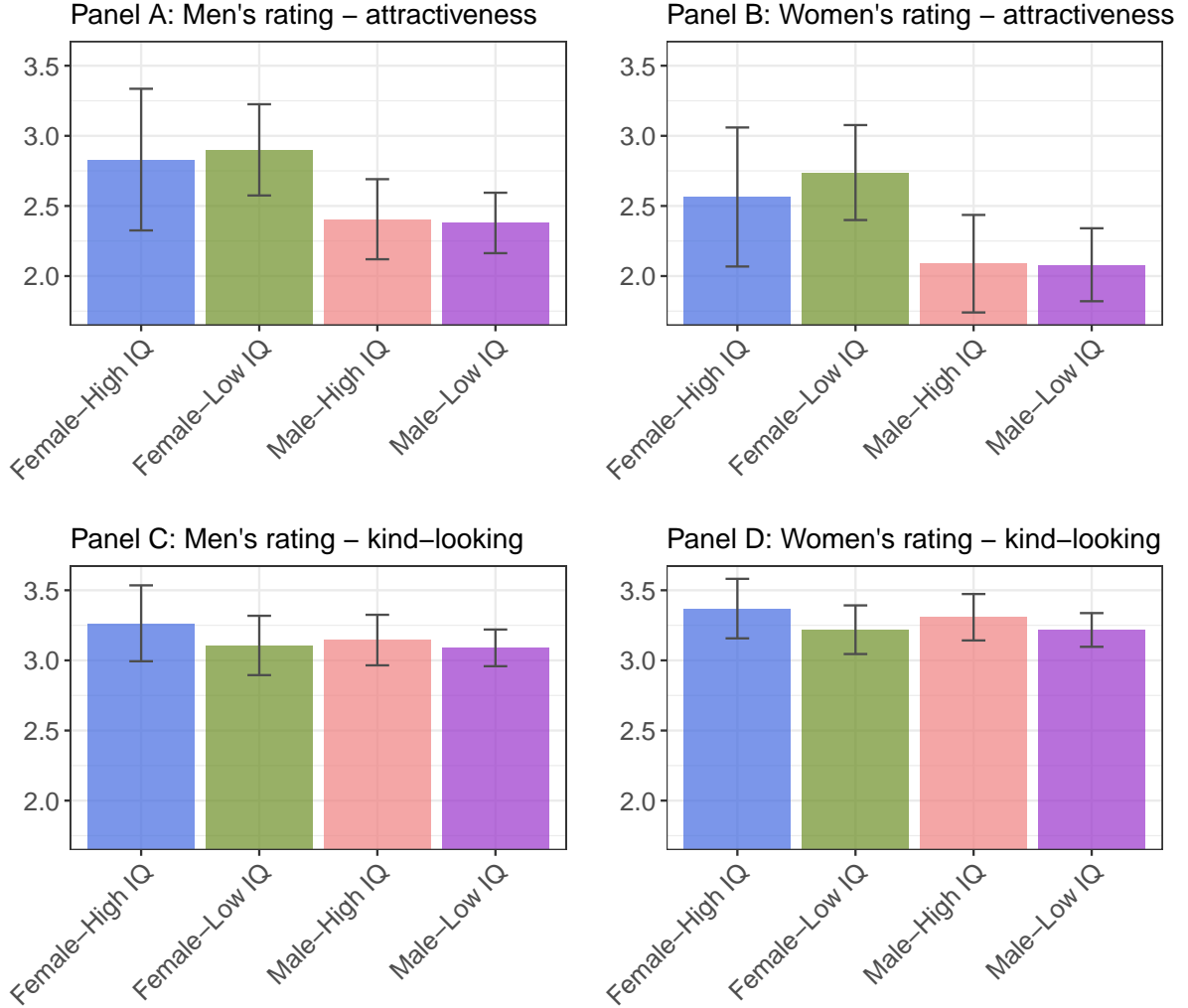
Notes: Panel A plots attractiveness ratings by male participants by receivers' gender and IQ and Panel B plots the same but by female participants, along with the 95% confidence intervals. Panel A plots kind-lookingness ratings by male participants by receivers' gender and IQ and Panel B plots the same but by female participants, along with the 95% confidence intervals. Confidence intervals are calculated with standard errors with with Bell and McCaffrey (2002)'s small sample bias adjustment. Receivers are high IQ if their IQ level is above median in the sample, and are low IQ otherwise.

- $\sum_{k=2}^{3} \theta_k^{social\ distance} \mathbb{1}[\text{social distance}_{ij} = k]$: fixed effects for social distance between dictator i and receiver j. social distance$_{ij} = 1$ means dictator i did not know receiver j at all, $= 2$ saw before, and $= 3$ knew but not well. $\mathbb{1}$ is the indicator variable.

D Additional Figures and Tables

Figure D1: IQ rank comprehension questions screen

Feedback

Among your 6 group members including you, you received **Rank 4**.

Among your 6 group members, how many people performed better than you in the IQ test?

Among your 6 group members, how many people performed worse than you in the IQ test?

Next

Notes: This figure shows an example of an IQ rank comprehension questions screen participants solve at the end of Part 1. In this example, the participant's IQ rank is 4.

Table D1: Dictator allocations to higher-IQ female receivers – OLS, male dictators (robustness)

Outcome:	Dictator's allocation (fraction of endowment)				Belief on IQ level
Sample:	Male dictators				Male receivers
	(1)	(2)	(3)	(4)	(5)
Higher IQ receiver x Female receiver (β_1)	0.008	0.035	0.044	0.035	0.818
	(0.062)	(0.060)	(0.075)	(0.077)	(0.522)
	[-0.113, 0.130]	[-0.083, 0.154]	[-0.103, 0.191]	[-0.117, 0.187]	[-0.212, 1.847]
Higher IQ receiver (β_2)	0.056	0.042	0.019	0.010	0.291
	(0.053)	(0.054)	(0.059)	(0.056)	(0.426)
	[-0.049, 0.161]	[-0.064, 0.147]	[-0.097, 0.135]	[-0.101, 0.121]	[-0.549, 1.132]
Female receiver (β_3)	0.031	0.014	-0.011	-0.009	-0.253
	(0.035)	(0.034)	(0.043)	(0.046)	(0.362)
	[-0.037, 0.100]	[-0.052, 0.081]	[-0.095, 0.073]	[-0.099, 0.082]	[-0.968, 0.463]
Dictator IQ FE	✓	✓	✓	✓	✓
Round FE	✓	✓	✓	✓	✓
Social distance FE	✓	✓	✓	✓	✓
Dictator demographics	-	✓	✓	✓	✓
Receiver demographics	-	-	✓	✓	✓
Receiver attractiveness FE	-	-	-	✓	-
Receiver kind-lookingness FE	-	-	✓	✓	-
Higher IQ receiver x Female receiver +Higher IQ receiver ($\beta_1 + \beta_2$)	0.064	0.077	0.063	0.045	1.109***
	(0.050)	(0.052)	(0.072)	(0.075)	(0.403)
	[-0.034, 0.163]	[-0.025, 0.179]	[-0.079, 0.204]	[-0.102, 0.193]	[0.314, 1.904]
Higher IQ receiver x Female receiver +Female receiver ($\beta_1 + \beta_3$)	0.040	0.050	0.033	0.027	0.565
	(0.048)	(0.047)	(0.060)	(0.063)	(0.354)
	[-0.056, 0.135]	[-0.042, 0.142]	[-0.085, 0.150]	[-0.097, 0.151]	[-0.134, 1.264]
Baseline Mean	0.305	0.305	0.327	0.327	6.489
Baseline SD	0.269	0.269	0.270	0.270	1.842
Adj. R-squared	0.051	0.083	0.079	0.103	0.047
Observations	260	260	211	211	197
Clusters	91	91	91	91	104

Notes: This table presents the same regression results as Table 1 but with different controls. The standard error (in parenthesis) and the 95% confidence interval (in bracket) are reported below each coefficient estimate. The standard errors are clustered at the dictator level with Pustejovsky and Tipton (2018)'s small cluster bias adjustment. Baseline mean and standard deviation are that of lower-IQ male receivers. Significance levels: * 10%, ** 5%, and *** 1%.

Table D2: Dictator allocations to higher-IQ female receivers – OLS, male dictators, No standard error clustering

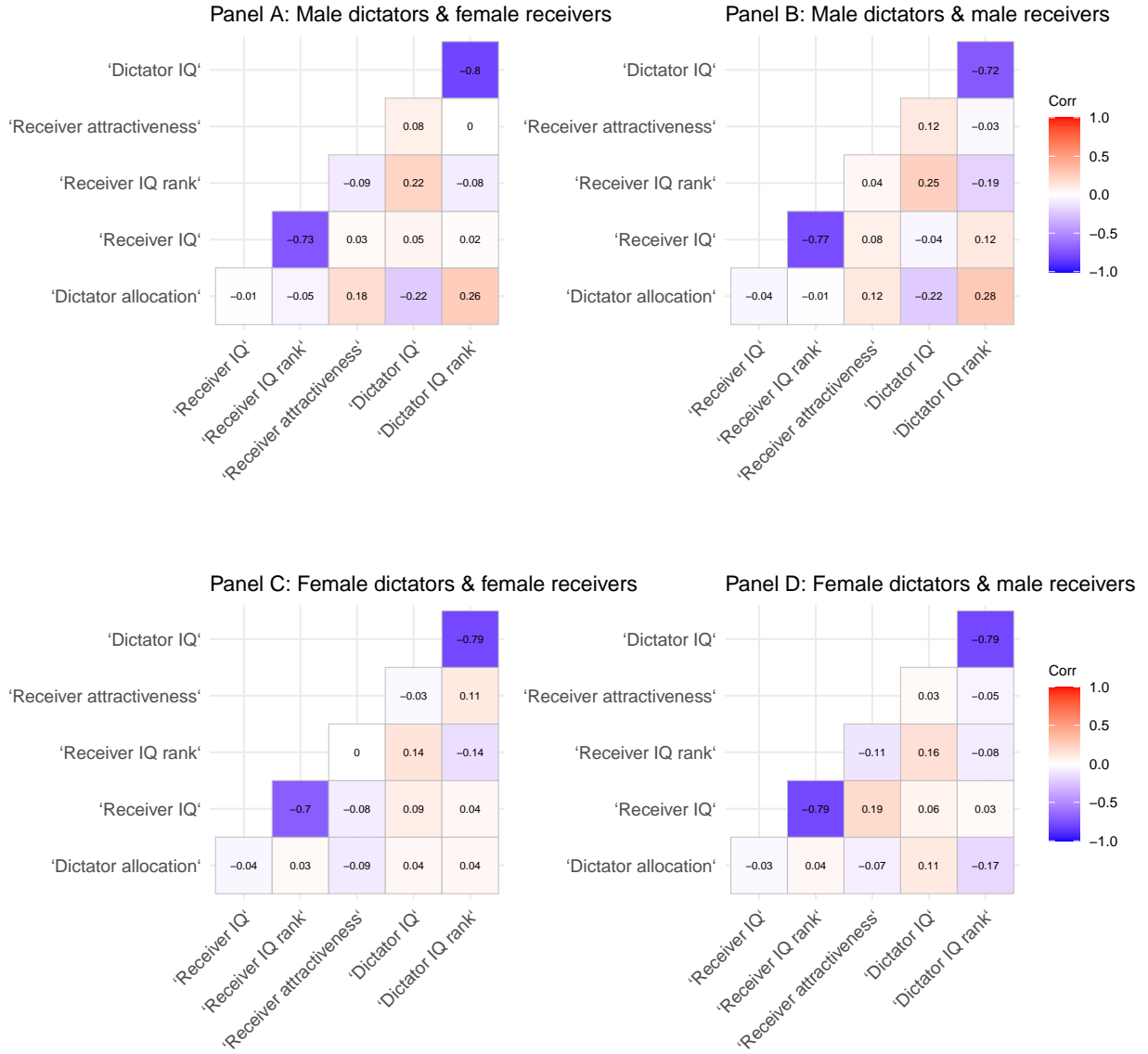| Outcome:	Dictator's allocation (fraction of endowment)			
Sample:	Male dictators			
	(1)	(2)	(3)	(4)
Higher IQ receiver x Female receiver (β_1)	0.018	0.017	0.031	0.047
	(0.063)	(0.063)	(0.064)	(0.074)
	[-0.107, 0.142]	[-0.107, 0.140]	[-0.096, 0.158]	[-0.098, 0.192]
Higher IQ receiver (β_2)	0.093**	0.054	0.048	0.007
	(0.041)	(0.045)	(0.046)	(0.053)
	[0.013, 0.174]	[-0.034, 0.143]	[-0.043, 0.139]	[-0.098, 0.113]
Female receiver (β_3)	0.038	0.031	0.014	-0.021
	(0.043)	(0.042)	(0.043)	(0.052)
	[-0.046, 0.122]	[-0.052, 0.115]	[-0.070, 0.098]	[-0.124, 0.081]
Dictator IQ FE	-	✓	✓	✓
Round FE	-	-	✓	✓
Social distance FE	-	-	✓	✓
Dictator demographics	-	-	✓	✓
Receiver demographics	-	-	✓	✓
Receiver attractiveness FE	-	-	-	✓
Higher IQ receiver x Female receiver +Higher IQ receiver ($\beta_1 + \beta_2$)	0.111**	0.071	0.079	0.054
	(0.048)	(0.052)	(0.053)	(0.063)
	[0.017, 0.206]	[-0.032, 0.174]	[-0.025, 0.182]	[-0.069, 0.178]
Higher IQ receiver x Female receiver +Female receiver ($\beta_1 + \beta_3$)	0.056	0.048	0.045	0.026
	(0.047)	(0.047)	(0.048)	(0.058)
	[-0.036, 0.148]	[-0.044, 0.140]	[-0.048, 0.139]	[-0.088, 0.139]
Baseline Mean	0.305	0.305	0.305	0.327
Baseline SD	0.269	0.269	0.269	0.270
Adj. R-squared	0.032	0.052	0.080	0.088
Observations	260	260	260	211
Clusters	91	91	91	91

Notes: This table presents the regression results of equation 1. The standard error (in parenthesis) and the 95% confidence interval (in bracket) are reported below each coefficient estimate. The standard errors are neither cluster-robust nor heteroskedasticity-robust. Baseline mean and standard deviation are that of lower-IQ male receivers. Significance levels: * 10%, ** 5%, and *** 1%.

Table D3: Dictator allocations to higher-IQ female receivers – OLS, female dictators

| Outcome:	Dictator's allocation (fraction of endowment)			
Sample:	Female dictators			
	(1)	(2)	(3)	(4)
Higher IQ receiver x Female receiver (β_1)	0.057	0.060	0.057	0.035
	(0.045)	(0.047)	(0.046)	(0.063)
	[-0.033, 0.146]	[-0.032, 0.152]	[-0.034, 0.147]	[-0.089, 0.160]
Higher IQ receiver (β_2)	-0.049	-0.051	-0.049	-0.020
	(0.035)	(0.037)	(0.042)	(0.063)
	[-0.119, 0.021]	[-0.123, 0.021]	[-0.131, 0.033]	[-0.144, 0.105]
Female receiver (β_3)	-0.024	-0.027	-0.014	-0.009
	(0.037)	(0.038)	(0.037)	(0.043)
	[-0.098, 0.049]	[-0.101, 0.048]	[-0.088, 0.059]	[-0.094, 0.077]
Dictator IQ FE	-	✓	✓	✓
Round FE	-	-	✓	✓
Social distance FE	-	-	✓	✓
Dictator demographics	-	-	✓	✓
Receiver demographics	-	-	✓	✓
Receiver attractiveness FE	-	-	-	✓
Higher IQ receiver x Female receiver	0.008	0.009	0.007	0.016
+Higher IQ receiver ($\beta_1 + \beta_2$)	(0.036)	(0.036)	(0.037)	(0.057)
	[-0.064, 0.079]	[-0.061, 0.080]	[-0.065, 0.080]	[-0.097, 0.128]
Higher IQ receiver x Female receiver	0.032	0.033	0.042	0.026
+Female receiver ($\beta_1 + \beta_3$)	(0.030)	(0.031)	(0.029)	(0.045)
	[-0.027, 0.092]	[-0.027, 0.094]	[-0.015, 0.100]	[-0.062, 0.115]
Baseline Mean	0.458	0.458	0.458	0.466
Baseline SD	0.225	0.225	0.225	0.222
Adj. R-squared	-0.004	-0.008	0.021	-0.014
Observations	298	298	298	223
Clusters	104	104	104	103

Notes: This table presents the regression results of equation 1. The standard error (in parenthesis) and the 95% confidence interval (in bracket) are reported below each coefficient estimate. The standard errors are clustered at the dictator level with Pustejovsky and Tipton (2018)'s small cluster bias adjustment. Baseline mean and standard deviation are that of lower-IQ male receivers. Significance levels: * 10%, ** 5%, and *** 1%.

Figure D2: Correlation between dictator allocation and key variables

Panel A: Male dictators & female receivers

	'Receiver IQ'	'Receiver IQ rank'	'Receiver attractiveness'	'Dictator IQ'	'Dictator IQ rank'
'Dictator IQ'					−0.8
'Receiver attractiveness'				0.08	0
'Receiver IQ rank'			−0.09	0.22	−0.08
'Receiver IQ'		−0.73	0.03	0.05	0.02
'Dictator allocation'	−0.01	−0.05	0.18	−0.22	0.26

Panel B: Male dictators & male receivers

	'Receiver IQ'	'Receiver IQ rank'	'Receiver attractiveness'	'Dictator IQ'	'Dictator IQ rank'
'Dictator IQ'					−0.72
'Receiver attractiveness'				0.12	−0.03
'Receiver IQ rank'			0.04	0.25	−0.19
'Receiver IQ'		−0.77	0.08	−0.04	0.12
'Dictator allocation'	−0.04	−0.01	0.12	−0.22	0.28

Panel C: Female dictators & female receivers

	'Receiver IQ'	'Receiver IQ rank'	'Receiver attractiveness'	'Dictator IQ'	'Dictator IQ rank'
'Dictator IQ'					−0.79
'Receiver attractiveness'				−0.03	0.11
'Receiver IQ rank'			0	0.14	−0.14
'Receiver IQ'		−0.7	−0.08	0.09	0.04
'Dictator allocation'	−0.04	0.03	−0.09	0.04	0.04

Panel D: Female dictators & male receivers

	'Receiver IQ'	'Receiver IQ rank'	'Receiver attractiveness'	'Dictator IQ'	'Dictator IQ rank'
'Dictator IQ'					−0.79
'Receiver attractiveness'				0.03	−0.05
'Receiver IQ rank'			−0.11	0.16	−0.08
'Receiver IQ'		−0.79	0.19	0.06	0.03
'Dictator allocation'	−0.03	0.04	−0.07	0.11	−0.17

Notes: This figure plots correlations between dictators' allocation and key variables of dictators' and receivers' key variables. Panel A restricts the sample to male dictators' allocations to female receivers, Panel B to male dictators' allocations to male receivers, Panel B to female dictators' allocations to female receivers, and Panel D to female dictators' allocations to male receivers.

Figure D3: Dictator allocations to higher-IQ female receivers – Distribution, female dictators

Female dictators' allocation (N=298, Randomization inference p-value=0.396)
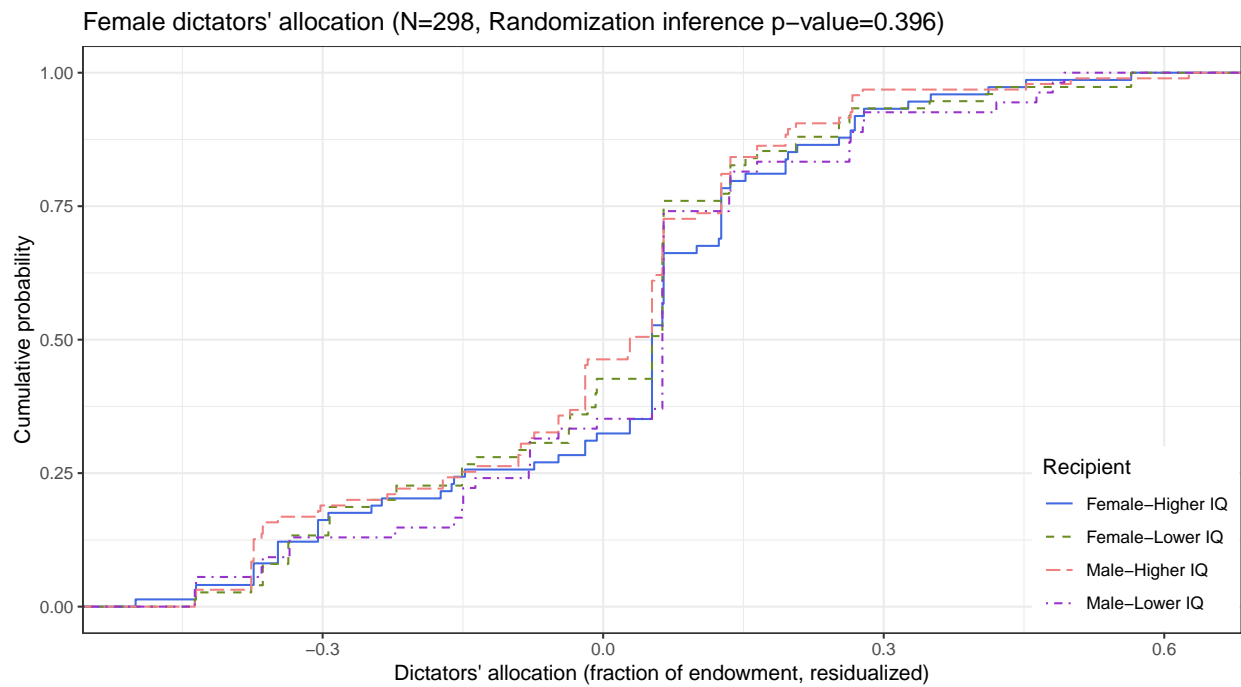
Notes: The figure presents the empirical CDF of dictator allocations by receiver types, residualized with the dictator-IQ fixed effects to give a causal interpretation to the differences. The randomization inference p-value (Young 2019) is calculated with the Kruskal-Wallis test with 2000 random draws. I use randomization inference to address arbitrary dependency among allocations. The null hypothesis is that all CDFs coincide.

E   Experimental Instructions

To the experimenter:

- *Before subjects arrive:*
- *Clear image cache from the browser.*
- *Put on each desk (i) a scratch paper and (ii) a pencil.*
- *Have a printed instructions ready.*
- *Set up photo booth. The brightness of the camera should be 172 and resolution 0.7 mb with 4:3 aspect ratio.*
- *Leave a paper in which participants write down their desk number on the photo booth.*
- *After registration:*
- *Give them photo taking instructions.*
- *Ask them to take photo at the photo booth, then take seat.*
- *After subjects took photo:*
- *Check that all the participants' photos are neutral: they must not signal nothing other than their gender.*
- *Make sure that the photos are saved as Pxx.jpg where xx is participant's desk number.*
- *After reserve participants left the room:*
- *Rename the photo name to the new desk number's for those who moved to new desks.*
- *Store photos in _static/photo folder.*
- *Startup Chrome & oTree*

App: personal_info

Page: DeskNumber

Please enter your desk number and click "Next"

[Your desk number:]

Page: PersonalInfo

Please check that the photo is yours

[Participant's photo]

The photo you took is displayed above. Please check that the photo is yours. Please also enter your first name. We will come to each desk and check the photo and the first name.

 [Your first name:]

[Digital signature (please wait for us to sign you in):]

To the experimenter: before type in the password, do the followings:

- *Check that the photo and the first name correspond to the participant.*

Then click "Next" to let participants to proceed.

Page: Introduction

To the experimenter: read the instructions aloud.

Welcome!

You are participating in a study of the BLESS. For your participation, you will receive a fixed amount of [Participation fee]€. There are 2 parts in which you can earn additional earnings. The expected length is 1 hour.

During the study, we use your photo and first name to identify you. Your photo and the first name will only be used in this session and deleted immediately afterwards. However, we may ask some of you to allow us to use their photo in another study, which you can opt out.

The study is computerized, meaning that the computer program will give you precise instructions in each task. In the following you will find general instructions of the study, which you can always find in the bottom of the screen.

General instructions

- Please turn off your mobile phone.
- Please do not communicate with other participants.
- Please only use paper and pencil.
- Once you understand the instructions or enter your decisions, please click "Next" to proceed unless instructed otherwise.
- If you have any questions, please raise your hand at any time.

If there is no question, we will start the study.

To the experimenter:

- *Confirm that everyone turned off their mobile phone.*
- *Then, if there is no question, click "Advance slowest user(s)."*

After that, just sit in the experimenter area unless someone raises her or his hand. Do not read instructions aloud unless this document says to do so.

App: iqtest

Page: Introduction

Part 1: Instructions

In part 1, you will work on an IQ test, which is frequently used to measure intelligence. The IQ test you will work on is the Raven's Standardized Progressive Matrices Test.

You will solve the IQ test as follows: for each question, you will see an image in which a piece is missing. Below the image there will be several options. Choose the correct option among them to complete the image. There will be only one correct option.

An example is provided below. In the image, there are 9 large white squares each containing a small black square. In the first column, the small black square is located on the left; in the second column, in the middle; in the third column, on the right. In the first row, it is located on the top; in the second row, in the middle; in the third row, in the bottom. Thus, in the third

2

column of the third row, the small black square must be located in the right bottom, thus the correct option is 5.

[Raven matrix no. 31 here]

There are 9 questions in total and you have 9 minutes. Once the time is over, you will automatically be directed to the next page. You will earn [Payoff per IQ test]€ for each correct answer. There is no penalty for wrong answers. You can use paper and pencil on your desk.

Page: IQTest (9 minutes)

Please complete the image by choosing the correct option

[Raven IQ test]

Page: Guess

Guess the number of questions you solved

The IQ test is over.

We have randomly formed a group of 6 participants including you in this room and constructed a ranking among the 6 group members based on their IQ test performance.

A group member with rank 1 performed the best in the IQ test, followed by a group member with rank 2, 3, 4, 5, and 6. In case of a tie between group members, the computer randomly decided who receives the higher rank.

How many questions do you think you have solved correctly? If your guess is correct, you will additionally earn [Earnings from guess]€.

[Guess]

[Dictator] *Page: Feedback*

Feedback

Among your 6 group members including you, you received **Rank [Participant's rank]**.

[Among your 6 group members, how many people performed better than you in the IQ test?:]

[Among your 6 group members, how many people performed worse than you in the IQ test?:]

App: dictator

[Dictator] *Page: IntroductionDict*

Part 2: Instructions

In this part, half of you will be active participants who will work on the task described in the next page, and the remaining half will be passive participants who will NOT work on the task described in the next page.

 [Dictator] *Page: IntroductionDictCont*

Part 2: Instructions

You are assigned to a role of **active participant**.

Part 2 consist of 3 rounds. In each round, you will first receive an endowment (money). After that, you will be paired with a passive participant in your group.

Your task in this part is to allocate the endowment to yourself and the paired passive participant. The passive participants, other active participants, or anyone else other than us will never know who allocated how much.

At the end of the study, the computer will randomly select 1 out of 3 rounds and the amount you allocated to you in that round will be your earnings in this part.

The computer will also randomly select 1 out of 3 rounds for the paired passive participants and the amount you allocated to him or her in that round will be his or her earnings in this part.

[Recipient] *Page: IntroductionRecip*

Part 2: Instructions

In part 2 consists of 2 rounds. In each round, you will be paired with another participant in your group.

Your task in this part is to guess how many questions the paired participant has solved correctly in the IQ test. For each correct guess, you will earn [Earning from guess other]€.

[Dictator] *Page: PrepEndow*

Round [Round number] of 3

Please wait.

[Dictator] *Page: OfferDict1-3*

Round [Round number] of 3

[Paired participant's photo]

[Paired participant's first name]

Rank [Paired participant's rank]

You have received **[7/5/7]€** for this round.

You have been paired with **[Paired participant's first name].**

Please allocate the endowment between yourself and [Paired participant's first name]. When you click the line below, a cursor appears. You can move the cursor by dragging it. Please move the cursor to your preferred position to determine the allocation.

[Slider from 0 to endowment that moves with increment of 0.5]

[Recipient] *Page: GuessOther1-3*

Round [Round number] of 2

[Paired participant's photo]

[Paired participant's first name]

Rank [Paired participant's rank]

You have been paired with **[Paired participant's first name].**

How many questions do you think [Paired participant's first name] has solved correctly?

[Guess]

[Dictator] **Page: AnonymityCheckDict**

Round 3 of 3

Below we display the participants whom you were paired with. How well did you know him/her before participating in this study?

[Paired participant 1's photo] [Paired participant 1's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]	[Paired participant 2's photo] [Paired participant 2's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]	[Paired participant 3's photo] [Paired participant 3's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]

[Recip] **Page: AnonymityCheckRecip**

Round 2 of 2

Below we display the participants whom you were paired with. How well did you know him/her before participating in this study?

[Paired participant 1's photo] [Paired participant 1's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]	[Paired participant 2's photo] [Paired participant 2's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]

Page: ShowResults

Results

The study is over. The results are provided below.

- In part 1, you solved [**Number of IQ test questions solved**] questions and earned [**Earnings from IQ test]€.** [If guess is correct] You have additionally earned **[Earnings from guess]€** because your guess about the number of questions solved was correct.
- [Dictator] In part 2, computer selected **round [1/2/3]** in which you allocated **[Allocation to self]€** to yourself.
- [Recipient] In part 2, you made **[Number of correct guesses on others]** guesses correct. So you earned **[Earnings from guesses other]€**.
- [Recipient] You additionally earned a top-up of **[Allocation from dictator]€**.

So, your total earnings are **[Participant's earnings]€** including [Participation fee]€ of participation fee.

Thank you for participating in this study! We will prepare your payment soon. Meanwhile, please answer a short questionnaire by clicking "Next." Your answer will be kept anonymous and will not affect your payment.

Page: Questionnaire1

Questionnaire 1 of 3

[Your study program: Agricultural and Food Sciences; Economics and Management; Education; Engineering and Architecture; Humanities; Languages and Literatures, Interpreting and Translation; Law; Medicine; Pharmacy and Biotechnology; Political Sciences; Psychology; Sciences; Sociology; Sport Sciences; Statistics; Veterinary Medicine]

[Please also type your full study program name in Italian:]

If you are enrolled in a specialized or professional program, please choose the closest study program. If you are enrolled in a post-bachelor vocational program, please choose the study program of your bachelor's degree. If you are an exchange student, please choose the study field closest to the one in your home university.

 [Your degree program: Bachelor, Master/Post-bachelor, Bachelor-master combined (ciclo unico), Doctor]

[Your year in the degree program: 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th]

[Your age:]

[Your gender: Male, Female]

[Are you from Emilia-Romagna region?: Yes, No]

[Recipient] In another study, we'd like to use your photo. We will show your photo to some people in the University of Bologna only in this room, but no other people except us will see

your photo. Your photo will be deleted immediately after we finish another study. For your cooperation, we will pay you gratuity of [Gratuity for photo use]€. May we use your photo in another study?

[Yes, I allow the researcher to use my photo in another study; No, I do NOT allow the researcher to use my photo in another study]

[What do you think the study you participated was about?]

[Was there anything unclear or confusing about the study you participated?]

[Do you have any other comments? (optional)]

Page: Questionnaire2

To the experimenter:

- *Prepare payment.*

Questionnaire 2 of 3

Below we display the participants whom you were paired with. How well did you know him/her before participating in this study?

[Dictator]

[Paired participant 3's photo] [Paired participant 3's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]	[Paired participant 1's photo] [Paired participant 1's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]	[Paired participant 2's photo] [Paired participant 2's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]

[Recipient]

[Paired participant 2's photo] [Paired participant 2's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]	[Paired participant 1's photo] [Paired participant 1's first name] [I didn't know him/her at all, I saw him/her before, I knew him/her but not very well, I knew him/her very well]

Page: Questionnaire3

Questionnaire 3 of 3

[What do you think this study was about?]

[Was there anything unclear or confusing about this study?]

[Do you have any other comments? (optional)]

[Participants with payment less than 5€] *Page: ExtraTask*

Extra task

Please solve the additions below and click next to earn [5€ – Participant's earnings]€.

84	33	64

[Sum of the above numbers:]

19	65	97

[Sum of the above numbers:]

[English translation – Original in Italian]

Welcome!

Thank you for participating in this study, which should take around 30 minutes of your time.

In this study, we will show you 100 facial photos of participants in another study conducted in BLESS. For each photo, we will ask you to evaluate some aspects of the photos.

Please click Next to continue.

[Next]

Photo 1/100

- How attractive do you think this person is? [Not attractive at all, Not attractive, Neither not attractive nor attractive, Attractive, Very attractive]
- How kind do you think this person is? [Not kind at all, Not kind, Neither not kind nor kind, Kind, Very kind]
- Do you think this person is Italian? [Italian, Maybe Italian, Foreigner]
- Do you know this person? [Yes, No]

[Next]

Thank you!

Thank you for your participation. Before you leave, could you please tell us about yourself?

- Your gender: [Male, Female, Other]
- Your age: [Under 25, 25 or above]

[Next]

End of the study

The study is over. We will pay you 10€ for your participation via PayPal in 2 weeks. Please remain seated until the experimenter calls you.

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