Supplementary Information

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Supplementary Methods

Table S1. Cultural and Economic Factors

The table summarises the cultural and economic factors that we tested as possible explanations for differences in private solution adoption and public solution provision rates across countries.

Cultural Factors	How defined or measured?
Individualism Index	The degree to which people feel independent as opposed to being interdependent as members of larger wholes. Measured as national score[1].
Power Distance Index	The extent to which the less powerful members of organisations / institutions accept and expect that power is distributed unequally[1].
Uncertainty Avoidance	A society's tolerance for ambiguity and uncertainty[1].
Masculinity vs. Femininity	The extent to which the use of force is endorsed socially[1].
Long-Term vs. Short-Term Orientation	Deals with change: long-term values include perseverance and thrift; short-term values include reciprocating social obligations and respect for tradition[1].
Indulgence	Deals with the 'good things in life': in indulgent cultures, it is good to be free; in a restrained culture, life is hard, and duty is the normal state of being[1].
Survival vs. Self-Expression	Refers to tolerance, trust, emphasis on subjective well-being, civic activism, and self-expression that emerges in postindustrial societies with high levels of existential security and individual autonomy. Measured as mean score of Post-Materialist 12-item index in World Values Survey Wave 7 (2017-2022)[2].
Traditional vs. Secular-Rational	Reflects the contrast between societies in which religion is very important and those in which it is not. Measured as mean Welzel Secular Values score in World Values Survey Wave 7 (2017-2022)[2].
Tightness vs. Looseness	Refers to strength of social norms and degree of sanctioning within societies[3].
Trust	Measured via the following World Values Survey question: Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people? Defined as the percentage of people within a country responding 'Most people can be trusted'[4] (as reported by the World Values Survey).
Trust in Government	OECD measure of the share of people who report having confidence in the national government, defined as the % of respondents answering "yes" to the survey question: "In this country, do you have confidence in… national government?[5]
Acceptance of Inequality	Measured via the following World Values Survey question: How would you place your views on this scale? 1 = Incomes should be made more equal; 10 = There should be greater incentives for individual effort. Defined as the mean response within each country (as reported by the World Values Survey)[4].
Individual vs. Government Responsibility	Measured directly from study participants using the following World Values Survey question: How would you place your views on this scale? 1 = The government should take more responsibility to ensure that everyone is provided for; 10 = People should take more responsibility to provide for themselves.

Success: Luck vs. Merit	Measured directly from study participants using the following World Values Survey question: How would you place your views on this scale? 1 = In the long run, hard work usually brings a better life; 10 = Hard work doesn't generally bring success – it's more a matter of luck and connections.
Gini Index	Most recently available World Bank measure of Gini Coefficient[6].
GDP per capita	Most recently available World Bank measure of GDP per capita (USD)[7].
Control of Corruption	World Bank estimate of perceptions of the extent to which public power is exercised for private gain, ranging from -2.5 to 2.5[8].
MacArthur Subjective Socioeconomic Scale	Measured directly from participants using an image of a ladder with 10 rungs (numbered 1-10) and the following description: At the top of the ladder are the people who are the best off, those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off, those who have the least money, least education, worst jobs, or no job. Please choose the number that best represents where you think you stand on the ladder.[9]

Table S2. Participant Payments

The table summarises the country, the university where we recruited students, whether this university was a private or public institution, whether the experiment was implemented online or in the lab, the mean payment for participants in the local currency, plus a conversion based on current exchange rates into GBP and purchasing power equivalent based on World Bank data. We aimed for approximately equivalent PPP across countries.

Country	University	Institution	Implementation	Mean Payment (Local Currency)	GBP Equivalent	PPP Equivalent
Australia	University of Queensland and RMIT (Melbourne)	Public	Online	12.64	6.64	6.07
Austria	University of Innsbruck	Public	Online	6.85	5.99	6.44
Canada	Toronto Metropolitan University	Public	Lab	9.33	5.38	5.32
China	Institute of Psychology, Chinese Academy of Sciences; Nanjing Audit University	Public	Lab	34.35	3.76	6.18
Colombia	Universidad de los Andes	Private	Online	23340.63	5.64	11.67
Czech Rep	Masaryk University Experimental Economics Laboratory (MUEEL)	Public	Lab	167.91	5.18	8.40
Denmark	Aarhus University	Public	Online	58.42	5.36	6.43
Dominican Rep	Instituto Tecnológico de Santo Domingo	Private	Lab	164.16	5.37	4.92
Egypt	British University in Egypt	Private	Online	69.28	2.72	9.70
France	GATE, University of Lyon	Public	Lab	8.11	7.12	8.03
Germany	University of Hamburg	Public	Online	6.95	6.07	6.60
Ghana	University of Ghana	Public	Lab	29.84	5.97	5.97
Greece	Hellenic Mediterranean University & University of Crete	Public	Lab	5.60	5.88	7.22
Honduras	Centro Universitario Regional de Occidente (CUROC) de la Universidad Nacional Autónoma de Honduras	Public	Lab	117.40	3.93	7.04

Hong Kong	Hong Kong University of Science and Technology	Public	Online	53.01	5.40	6.36
Hungary	Corvinus University of Budapest; Eötvös Loránd University	Public	Lab	1376.34	5.45	5.51
India	Ashoka University	Private	Lab	268.73	2.67	8.06
Indonesia	Universitas Gadjah Mada	Public	Online	34658.16	1.98	3.47
Italy	University of Bologna	Public	Online	5.30	4.83	5.83
Japan	Institute of Social and Economics Research, Osaka University	Public	Online	808.06	5.46	8.08
Korea	Seoul National University	Public	Online	7752.22	4.68	6.20
Netherlands	Vrije Universiteit Amsterdam	Public	Online	6.03	5.17	5.42
Pakistan	University of the Punjab	Public	Online	640.78	3.55	7.69
Philippines	Ateneo de Manila University	Private	Lab	137.38	4.82	4.12
Poland	University of Warsaw	Public	Online	19.17	3.91	6.90
Senegal	Alioune Diop University of Bambey	Public	Lab	1851.94	5.34	5.56
South Africa	University of Cape Town	Public	Online	114.92	4.91	10.34
Spain	Universidad de Granada	Public	Lab	6.28	5.70	7.34
Switzerland	University of Bern	Public	Online	14.66	8.48	10.11
Taiwan	National Taiwan University	Public	Lab	186.90	4.92	Not available
UAE	New York University Abu Dhabi	Private	Lab	116.99	5.23	33.93
UK	University of Warwick	Public	Online	6.61	6.61	6.61
Uruguay	Universidad de la República	Public	Online	284.78	6.31	8.54
US	University of Maryland	Public	Online	8.16	6.45	5.47

Table S3. Sample Sizes by Country

Number of complete groups across countries. In countries in which recruitment proved more challenging (Ghana, Pakistan, Uruguay) we prioritised merit and luck groups.

Country	Merit Groups	Luck Groups	Uncertain Groups	Total
Australia	15	16	14	45
Austria	22	20	18	60
Canada	17	23	19	59
China	39	41	41	121
Colombia	17	23	24	64
Czech Rep	17	17	17	51
Denmark	16	16	15	47
Dominican Rep	18	19	28	65
Egypt	16	16	14	46
France	24	21	21	66
Germany	20	20	20	60
Ghana	10	18	0	28
Greece	13	17	15	45
Honduras	18	14	21	53
Hong Kong	23	18	19	60
Hungary	14	20	22	56
India	21	21	22	64
Indonesia	20	15	14	49
Italy	21	21	22	64
Japan	16	15	18	49
Korea	16	15	14	45
Netherlands	16	18	13	47
Pakistan	9	14	1	24
Philippines	19	21	16	56
Poland	21	22	17	60
Senegal	19	20	15	54
South Africa	19	18	23	60
Spain	13	17	14	44
Switzerland	22	20	18	60
Taiwan	20	20	20	60
UAE	15	19	23	57
UK	20	20	22	62
Uruguay	15	15	9	39
US	19	19	18	56
Average	**18**	**19**	**18**	**55**

Table S4. Participant Demographics by Country

The table summarises the proportion of females, 18-24 year olds, and Economics students in our student samples in each country, as well as the average subjective socioeconomic status response (some values are missing because this data was not collected in every country). At the bottom of the table are the outputs of balance checks (chi-squared tests for gender, age, and subject; ANOVA for subjective socioeconomic status) all of which showed that the demographic makeup was different across samples. Table S5 shows that these demographic variables were not associated with significantly different private or public solution adoption rates, however.

Country	% Female	% 18-24	% Economics	Subjective Socioeconomic Status
Australia	53.33	65.90	15.00	6.33
Austria	66.67	64.58	29.58	-
Canada	41.95	93.64	-	-
China	51.45	91.74	5.17	5.42
Colombia	50.78	85.04	6.64	6.31
Czech Rep	51.47	85.29	54.41	5.88
Denmark	55.85	66.13	10.11	6.03
Dominican Rep	46.54	98.46	-	-
Egypt	39.13	97.28	-	-
France	57.20	94.68	21.21	-
Germany	66.67	39.48	-	-
Ghana	34.82	91.07	6.25	6.49
Greece	63.33	96.00	-	5.18
Honduras	60.38	86.67	24.06	5.09
Hong Kong	55.83	100.00	10.42	5.51
Hungary	45.09	94.62	66.52	6.68
India	50.78	100.00	-	6.39
Indonesia	62.76	94.39	39.29	6.04
Italy	62.89	58.98	2.34	6.15
Japan	40.31	83.16	-	-
Korea	17.78	53.93	-	-
Netherlands	21.28	96.28	34.57	7.13
Pakistan	61.46	76.04	19.79	6.55

Philippines	48.21	98.21	3.12	6.66
Poland	56.67	93.75	-	5.82
Senegal	55.56	84.72	50.46	6.11
South Africa	58.75	82.01	3.75	5.25
Spain	46.59	90.17	89.20	5.81
Switzerland	53.75	59.58	27.08	6.19
Taiwan	40.42	85.77	10.00	4.52
UAE	49.56	97.81	23.68	6.10
UK	34.68	66.94	18.95	5.82
Uruguay	56.41	68.42	-	5.80
US	62.50	94.64	-	-
All	**51.49**	**83.91**		
Balance check between countries (*p* value)	< .001	< .001	< .001	< .001

Table S5. Demographic Variables and Private and Public Solution Adoption

The table shows the results of generalised linear regression models of private and public solution adoption rates as binomial outcome variables. The models included the main predictors (wealth and country) plus the main demographics (gender, age, subject, and subjective socioeconomic status [SES]) as independent variables. We include coefficient estimates only for demographic variables, which represent a comparison with a female, 18-24 year old participant who studies Economics. We collapsed 55-64 and 65+ year olds into '55+' because of the small sample sizes. Results indicate that our demographic variables did not significantly influence private or public solution adoption rates.

Private Solution Adoption				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	0.37	0.22	1.67	.095
Gender: Male	-0.08	0.07	-1.21	.228
Gender: Other	0.36	0.23	1.55	.120
Age: 25-34	-0.16	0.10	-1.67	.095
Age: 35-44	0.09	0.30	0.29	.770
Age: 45-54	0.10	0.47	0.22	.828
Age: 55+	1.21	0.77	1.57	.118
Subject: Humanities	-0.16	0.15	-1.11	.267
Subject: Other	-0.03	0.10	-0.35	.727
Subject: Psychology	-0.07	0.20	-0.33	.743
SES	0.01	0.02	0.42	.677
Public Solution Adoption				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	0.98	0.23	4.23	< .001
Gender: Male	0.07	0.07	1.00	.315
Gender: Other	-0.10	0.23	-0.45	.654
Age: 25-34	0.15	0.11	1.42	.156
Age: 35-44	0.48	0.36	1.33	.185
Age: 45-54	0.14	0.50	0.28	.779
Age: 55+	0.86	1.08	0.79	.429
Subject: Humanities	-0.01	0.16	-0.05	.964
Subject: Other	-0.15	0.10	-1.53	.127
Subject: Psychology	-0.20	0.22	-0.92	.357
SES	0.01	0.02	0.42	.678

Instructions for Experimenters

The below text was sent to all experimenters leading sessions in advance of implementation.

Before the sessions

- To test the code, please see instructions in the README file.
- Where possible, this experiment should be conducted online. This is to ensure consistency with previous implementations. Where this is not possible, subjects should be invited to a lab that ensures the privacy and anonymity of their decisions.
- Please recommend to subjects that they participate using a laptop or computer to minimise any compatibility issues and maximise clarity, although it is also possible for them to use a smartphone.
- We recommend inviting no more than 60 subjects to a session. At the start of the session, subjects will be randomly assigned to groups of four. Any subject who is not assigned to a group should be paid their participation fee and is free to leave.
- We are aiming to collect data from 240 participants in total, which is 20 groups in each treatment. Because groups are randomly assigned to treatments at the start of each session, the number of groups in each treatment may not be perfectly balanced. We may therefore need to run a follow-up session in which only treatments that have less than 20 groups are allowed (we can adjust this in lines 52-54 of the settings.py file).
- The easiest way to set up a session on oTree is to create a room, set 'Session config' as 'Full Experiment', and add the number of subjects that you have invited. The number of participants present will update when subjects join. You can then click Create to start the session, and monitor participants using the Monitor tab.

During the sessions

- To run a session, please use the Rooms (rather than Sessions) function on oTree.
- At the start of the session, please ensure that you mention the following points:
    1) Please use an active browser window and not have other browser tabs open while participating.
    2) You are participating in groups, so there may be times when you have to wait for other members of their group. If you are waiting a long time (more than a few minutes) please try refreshing the page.
    3) Instructions in the experiment will only be provided once, so please ensure that you read these very carefully before proceeding. If you have any questions at any stage, you should message me (or raise your hand if in the lab).
- When monitoring the experiment, if you see that a participant stays on one page for more than 3-4 minutes, it may be appropriate to contact them to check that they are not experiencing any difficulties. In the rare event that they remain on one page for more than 10 minutes, they will 'time out' and be advanced to the end of the experiment, along with the other three members of their group.

- For the effort task, we are really interested in effort rather than mental arithmetic ability – so subjects can use a calculator if they wish (but we should not explicitly instruct them to do so).

After the sessions

- Please thank subjects for participating and confirm how and when they can expect to be paid according to your local procedure.
- Subjects' payoffs are calculated automatically and stored in the variable 'participant.total_payout_local_currency'.
- Please ensure that all data is anonymised and then send a CSV file to me (eugene.malthouse@warwick.ac.uk). I can then run this through my R script and we can discuss results together.

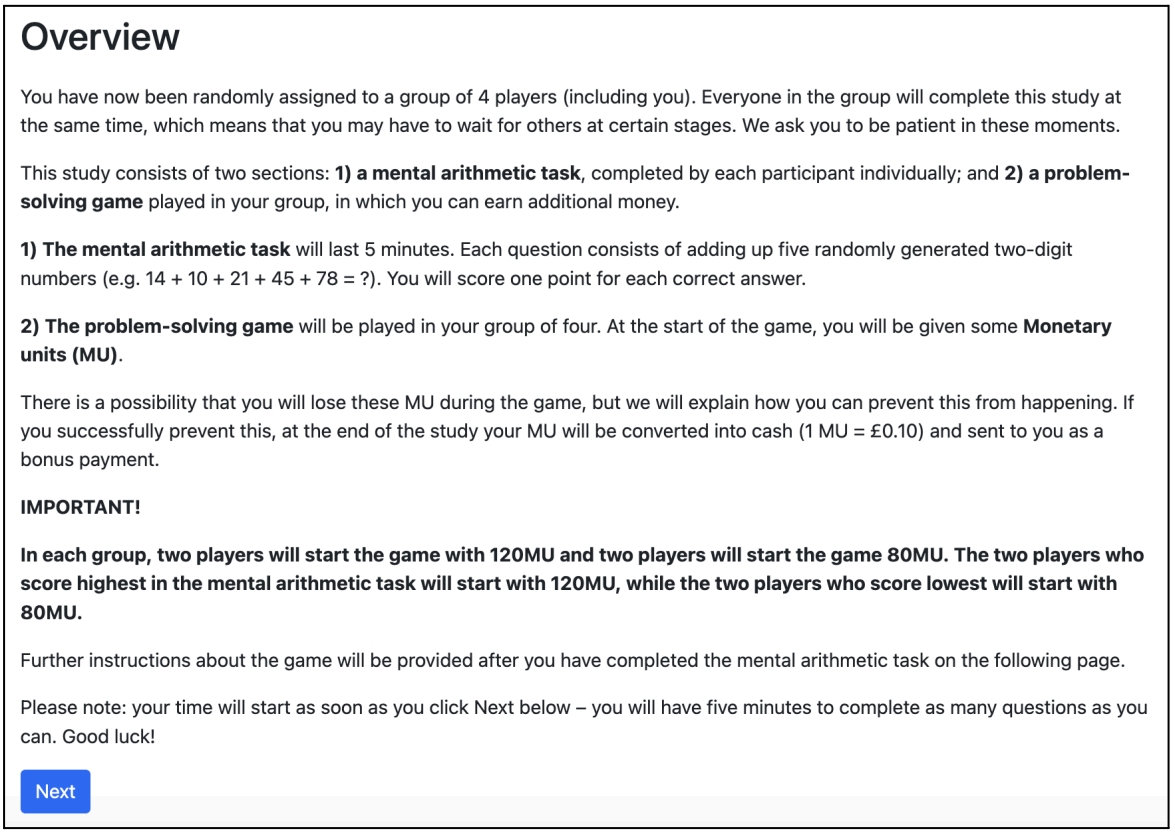
Instructions for Participants

The experiment code is available to download at: https://osf.io/zg8nj/. It can also be tested using the following link: https://privatepublic.herokuapp.com/. Below we provide screenshots from the English version of the experiment, conducted with students at the University of Warwick.

Overview

After reading an information sheet and completing a consent form, participants were asked for their age in years and gender. They were then presented with the following overview, depending on the treatment.

Merit Treatment:



Overview

You have now been randomly assigned to a group of 4 players (including you). Everyone in the group will complete this study at the same time, which means that you may have to wait for others at certain stages. We ask you to be patient in these moments.

This study consists of two sections: **1) a mental arithmetic task**, completed by each participant individually; and **2) a problem-solving game** played in your group, in which you can earn additional money.

1) The mental arithmetic task will last 5 minutes. Each question consists of adding up five randomly generated two-digit numbers (e.g. 14 + 10 + 21 + 45 + 78 = ?). You will score one point for each correct answer.

2) The problem-solving game will be played in your group of four. At the start of the game, you will be given some **Monetary units (MU)**.

There is a possibility that you will lose these MU during the game, but we will explain how you can prevent this from happening. If you successfully prevent this, at the end of the study your MU will be converted into cash (1 MU = £0.10) and sent to you as a bonus payment.

IMPORTANT!

In each group, two players will start the game with 120MU and two players will start the game 80MU. The two players who score highest in the mental arithmetic task will start with 120MU, while the two players who score lowest will start with 80MU.

Further instructions about the game will be provided after you have completed the mental arithmetic task on the following page.

Please note: your time will start as soon as you click Next below – you will have five minutes to complete as many questions as you can. Good luck!

Next

Luck Treatment:

Overview

You have now been randomly assigned to a group of 4 players (including you). Everyone in the group will complete this study at the same time, which means that you may have to wait for others at certain stages. We ask you to be patient in these moments.

This study consists of two sections: **1) a mental arithmetic task**, completed by each participant individually, in which you can earn additional money; and **2) a problem-solving game** played in your group, in which you can also earn additional money.

1) The mental arithmetic task will last 5 minutes. Each question consists of adding up five randomly generated two-digit numbers (e.g. 14 + 10 + 21 + 45 + 78 = ?). You will score one point for each correct answer. Your total score will be recorded, and the highest-scoring player in each group will receive a **£1 bonus after the study has concluded.**

2) The problem-solving game will be played in your group of four. At the start of the game, you will be given some **Monetary units (MU)**.

There is a possibility that you will lose these MU during the game, but we will explain how you can prevent this from happening. If you successfully prevent this, at the end of the study your MU will be converted into cash (1 MU = £0.10) and sent to you as a bonus payment.

IMPORTANT!

In each group, two players will start the game with 120MU and two players will start the game 80MU. Which two players start with 120MU and which two start with 80MU will be determined randomly by a lottery.

Further instructions about the game will be provided after you have completed the mental arithmetic task on the following page.

Please note: your time will start as soon as you click Next below – you will have five minutes to complete as many questions as you can. Good luck!

Next

Uncertain Treatment:

Overview

You have now been randomly assigned to a group of 4 players (including you). Everyone in the group will complete this study at the same time, which means that you may have to wait for others at certain stages. We ask you to be patient in these moments.

This study consists of two sections: **1) a mental arithmetic task**, completed by each participant individually; and **2) a problem-solving game** played in your group, in which you can earn additional money.

1) The mental arithmetic task will last 5 minutes. Each question consists of adding up five randomly generated two-digit numbers (e.g. 14 + 10 + 21 + 45 + 78 = ?). You will score one point for each correct answer.

2) The problem-solving game will be played in your group of four. At the start of the game, you will be given some **Monetary units (MU)**.

There is a possibility that you will lose these MU during the game, but we will explain how you can prevent this from happening. If you successfully prevent this, at the end of the study your MU will be converted into cash (1MU = £0.10) and sent to you as a bonus payment.

IMPORTANT!

In each group, two players will start the problem-solving game with 120MU and two players will start with 80MU. Whether you start with 120MU or 80MU will be determined either by your performance in the effort task or by a lottery – the computer will choose.

If the computer chooses task performance for you, you will receive 120MU if you were one of the two highest-scoring players in the group, and you will receive 80MU if you were one of the two lowest-scoring players in the group.

If the computer chooses the lottery for you, there is a 50% chance that you will receive 120MU and a 50% chance that you will receive 80MU.

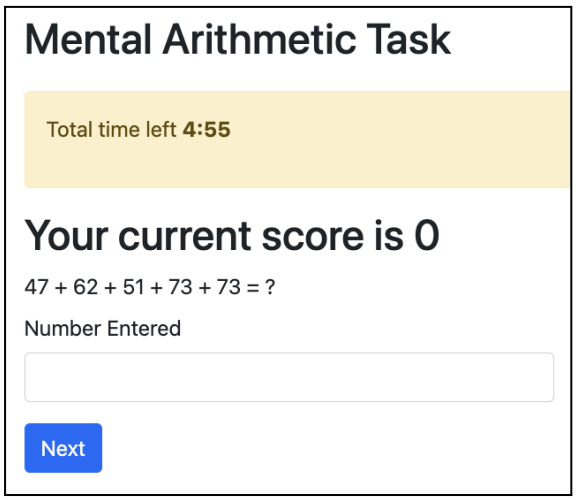
Further instructions about the game will be provided after you have completed the mental arithmetic task on the following page.

Please note: your time will start as soon as you click Next below – you will have five minutes to complete as many questions as you can. Good luck!

Next

Effort Task

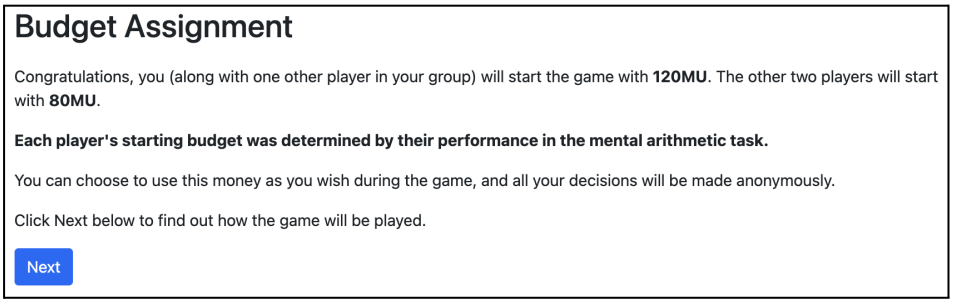
Participants then completed a five-minute mental arithmetic task in which they scored one point per correct answer.

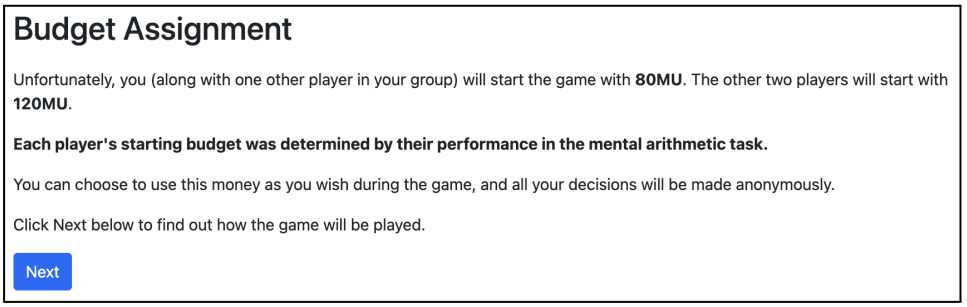


Budget Assignment

Participants were then told whether they would start the game with 120 MU or 80 MU and reminded that this was determined either by merit, luck, or one of the two (depending on the treatment).

Merit Treatment:





Luck Treatment:

Budget Assignment

Congratulations, you (along with one other player in your group) will start the game with **120MU**. The other two players will start with **80MU**.

Each player's starting budget was determined randomly by a lottery.

You can choose to use this money as you wish during the game, and all your decisions will be made anonymously.

Click Next below to find out how the game will be played.

Next

Budget Assignment

Unfortunately, you (along with one other player in your group) will start the game with **80MU**. The other two players will start with **120MU**.

Each player's starting budget was determined randomly by a lottery.

You can choose to use this money as you wish during the game, and all your decisions will be made anonymously.

Click Next below to find out how the game will be played.

Next

Uncertain Treatment:

Budget Assignment

Congratulations, you (along with one other player in your group) will start the game with **120MU**. The other two players will start with **80MU**.

Each player's starting budget was determined either by their performance in the mental arithmetic task or by a lottery.

You can choose to use this money as you wish during the game, and all your decisions will be made anonymously.

Click Next below to find out how the game will be played.

Next

Budget Assignment

Unfortunately, you (along with one other player in your group) will start the game with **80MU**. The other two players will start with **120MU**.

Each player's starting budget was determined either by their performance in the mental arithmetic task or by a lottery.

You can choose to use this money as you wish during the game, and all your decisions will be made anonymously.

Click Next below to find out how the game will be played.

Next

Game Instructions

Participants were then presented with more detailed about how the game worked. These instructions were the same in all three treatments.

How the Game Works

Instructions The game will be played as a group over 10 rounds. As outlined in the previous pages, there is a possibility that you will lose your MU **after 10 rounds**. To prevent this from happening, you have two options:

1) Solve the problem privately

You can solve the problem privately by investing **60MU** into your private account.

If you invest 60MU into your private account, at the end of the game you will get to keep all your remaining MU that you did not invest.

Each group member has their own private account that they can invest in.

2) Solve the problem as a group
You can solve the problem as a group by collectively investing **160MU** in the group account (on average **40MU** per person).

If together you invest 160MU into the group account, at the end of the game every player in the group will get to keep all remaining MU that they did not invest.

Important points for the game:

- All MU that you invest in the private and group accounts is spent and will not count towards your payment at the end of the game.

- To avoid losing your remaining MU, **you only need to solve the problem privately or as a group** (not both - although if you do solve it both privately and as a group you will also get to keep your remaining MU at the end of the game).

- In each round, you can invest up to a total of **20MU** in the private and group accounts. In other words, **you can only spend up to 20MU of your budget in each round.** Your decision will be anonymous. At the same time, the other group members will also decide how to invest their MU.

- At the end of each round, you will see the total amount in your private account and the total amount in the group account. And your remaining MU.

- As a reminder: **if you do not solve the problem privately or as a group, you will lose all your remaining MU**. But if you solve the problem privately and/or as a group, your remaining MU will be converted into cash and sent to you as a bonus payment (1 MU = £0.10).

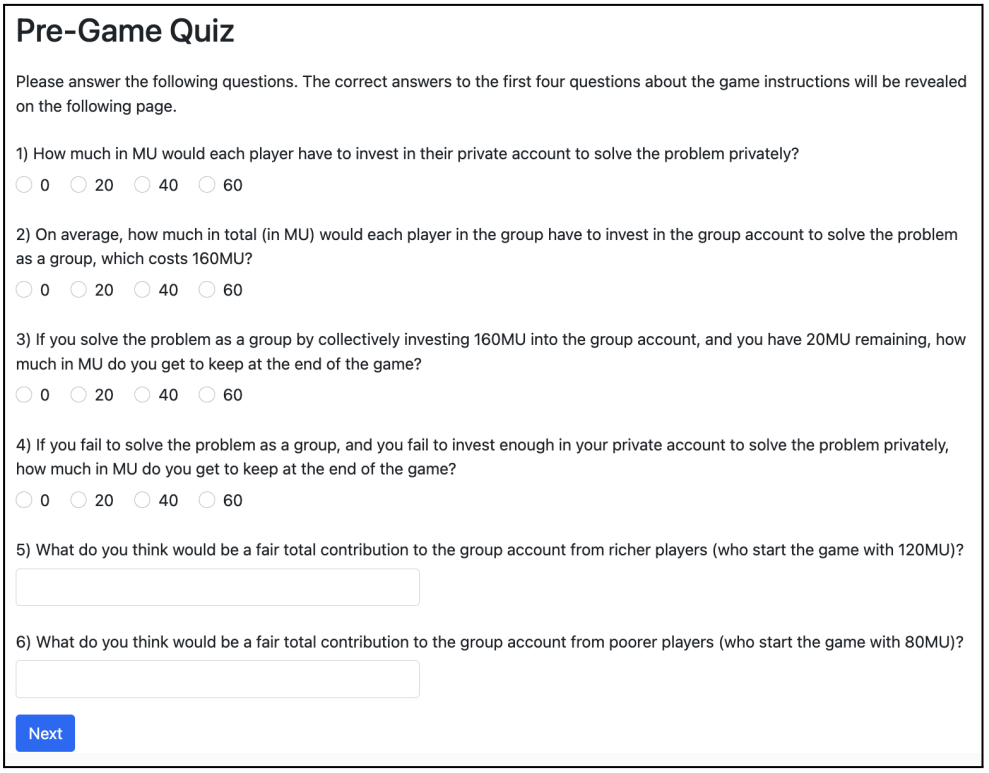
- On the next page, you will be asked four multiple choice questions to check your understanding of the game.

Next

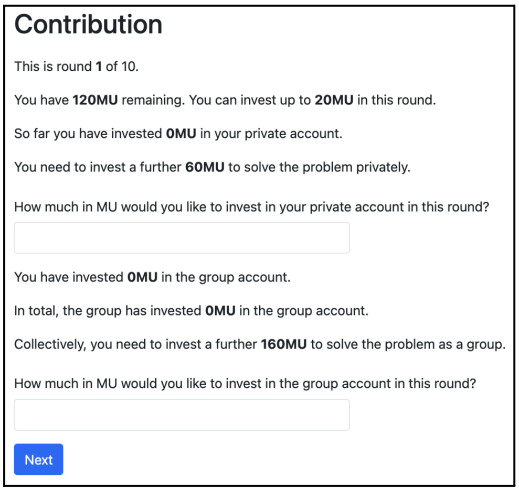
Pre-Game Quiz

After reading these instructions, participants completed a quiz to check their comprehension. They had to answer the four multiple-choice questions correctly in order to proceed to the game.

After this page, we confirmed the correct answers and they proceeded to make their decision in the first round of the game.



Contribution Page



Supplementary Tables

Statistical Details: Private Solution Adoption

Table S6. Private Solution Adoption by Wealth

The table summarises the number and proportion of rich and poor players who achieved the private solution within 10 rounds.

Wealth	Private Solution Adopted	Not Adopted	% Adopted	χ^2	p
Rich	2330	1422	62.1	681.8	< .001
Poor	1200	2552	32.0		

Table S7. Private Solution Adoption: Mixed-Effects Model

The table shows the output of our best-performing (based on AIC / BIC criteria) generalised logistic mixed-effects model used to investigate the relationship between wealth and private solution adoption while accounting for random group-level and country-level effects. The model allowed for variability in the baseline likelihood of private solution adoption across different groups and countries. It also allowed the effect of wealth on private solution adoption to vary between countries. It used a logit link function to model the log-odds of private solution adoption. Fixed effect and odds ratio (OR) estimates indicate that the odds of achieving the private solution when wealth is rich are 85% higher than when wealth is poor; and when wealth is poor the odds of achieving the private solution are around 20% of those when wealth is rich. The random effect estimates show a weak negative relationship between the random intercepts and slopes for wealth (-0.19), indicating that the wealth effect in countries with higher private solution adoption tended to have slightly lower variability.

Fixed Effects

Term	Estimate (OR)	Standard Error	z value	p value
(Intercept)	0.62 (1.85)	0.10	6.13	< .001
Wealth Poor	-1.61 (0.20)	0.10	-16.91	< .001

Random Effects

Group	Term	Variance	SD	Correlation
Group	Intercept	0.90	0.95	
Country	Intercept	0.27	0.52	
Country	Intercept + Wealth Poor	0.19	0.43	-0.19

Table S8. Private Solution Adoption by Country, Wealth, and Treatment

The table summarises the number and proportion of rich and poor players who achieved the private solution within 10 rounds in each country and treatment. It also shows the results of chi-squared tests comparing private solution adoption rates between treatments among both rich and poor players – none of which revealed a statistically significant difference. These results indicate that the source of wealth did not influence preferences for private solutions in any country.

Country	Wealth	Private Solution Adopted (%)			χ^2	p
		Luck Treatment	Uncertain Treatment	Merit Treatment		
Australia	Rich	65.6	57.1	60.0	0.48	.788
	Poor	28.1	17.9	23.3	0.88	.644
Austria	Rich	52.5	61.1	47.7	1.44	.486
	Poor	30.0	38.9	15.9	5.43	.066
Canada	Rich	73.9	71.1	76.5	0.27	.872
	Poor	28.3	23.7	38.2	1.89	.388
China	Rich	81.7	68.3	70.5	4.34	.114
	Poor	56.1	42.7	59.0	4.91	.086
Colombia	Rich	58.7	56.3	61.8	0.25	.883
	Poor	19.6	22.9	11.8	1.66	.437
Czech Rep	Rich	41.2	47.1	44.1	0.24	.888
	Poor	11.8	20.6	17.6	0.99	.61
Denmark	Rich	50.0	50.0	59.4	0.75	.689
	Poor	28.1	16.7	15.6	1.89	.388
Dominican Rep	Rich	78.9	80.4	75.0	0.38	.827
	Poor	44.7	48.2	27.8	3.99	.136
Egypt	Rich	56.3	57.1	56.3	0.01	.997
	Poor	28.1	39.3	28.1	1.12	.57
France	Rich	45.2	40.5	50.0	0.82	.663
	Poor	26.2	9.5	27.1	5.05	.08
Germany	Rich	42.5	57.5	52.5	1.87	.393
	Poor	10.0	30.0	30.0	5.96	.051
Greece	Rich	61.8	46.7	50.0	1.62	.444
	Poor	26.5	13.3	26.9	2.06	.357
Honduras	Rich	75.0	54.8	63.9	2.97	.227
	Poor	10.7	16.7	5.6	2.40	.302
Hong Kong	Rich	72.2	76.3	58.7	3.35	.188
	Poor	41.7	55.3	47.8	1.38	.503
Hungary	Rich	45.0	52.3	42.9	0.74	.69
	Poor	22.5	20.5	14.3	0.73	.693
India	Rich	64.3	70.5	52.4	3.08	.214
	Poor	45.2	56.8	35.7	3.87	.144
Indonesia	Rich	83.3	78.6	80.0	0.23	.893
	Poor	43.3	42.9	35.0	0.65	.722
Italy	Rich	52.4	52.3	57.1	0.26	.876
	Poor	21.4	27.3	28.6	0.64	.727
Japan	Rich	50.0	55.6	62.5	0.99	.61
	Poor	36.7	52.8	40.6	1.93	.381
Korea	Rich	50.0	67.9	75.0	4.43	.109
	Poor	40.0	57.1	56.3	2.23	.328
Netherlands	Rich	55.6	76.9	75.0	4.24	.12
	Poor	38.9	34.6	43.8	0.51	.776
Pakistan	Rich	71.4	50.0	83.3	1.52	.467
	Poor	21.4	0.0	11.1	1.26	.533

Country	Wealth	Private Solution Adopted (%)			χ^2	p
		Luck Treatment	Uncertain Treatment	Merit Treatment		
Philippines	Rich	66.7	65.6	71.1	0.28	.87
	Poor	40.5	46.9	34.2	1.16	.559
Poland	Rich	68.2	55.9	76.2	3.55	.17
	Poor	43.2	26.5	35.7	2.33	.312
Senegal	Rich	75.0	80.0	63.2	2.61	.271
	Poor	10.0	23.3	21.1	2.59	.274
South Africa	Rich	72.2	73.9	71.1	0.09	.957
	Poor	38.9	32.6	26.3	1.33	.514
Spain	Rich	64.7	71.4	65.4	0.36	.835
	Poor	17.6	28.6	19.2	1.20	.548
Switzerland	Rich	35.0	41.7	45.5	0.96	.618
	Poor	22.5	27.8	15.9	1.67	.434
Taiwan	Rich	55.0	47.5	40.0	1.80	.406
	Poor	30.0	22.5	20.0	1.18	.554
UAE	Rich	34.2	52.2	56.7	4.11	.128
	Poor	21.1	21.7	26.7	0.35	.839
UK	Rich	90.0	77.3	72.5	4.08	.13
	Poor	70.0	65.9	52.5	2.89	.236
Uruguay	Rich	56.7	44.4	73.3	4.18	.124
	Poor	23.3	27.8	36.7	1.32	.518
US	Rich	57.9	69.4	73.7	2.29	.318
	Poor	36.8	25.0	36.8	1.55	.461

Table S9. Private Solution Adoption by Wealth and Treatment: Mixed-Effects Model

The table shows the output of a generalised logistic mixed-effects model used to test the effect of wealth and treatment on private solution adoption while allowing for variability in the baseline likelihood of private solution adoption across different groups and countries. It used a logit link function to model the log-odds of private solution adoption. The results indicate that wealth influenced the likelihood of private solution adoption but treatment did not.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	0.63	0.12	5.28	< .001
Wealth Poor	-1.66	0.10	-16.85	< .001
Uncertain Treatment	-0.03	0.11	-0.28	.777
Luck Treatment	-0.03	0.11	-0.24	.809
Poor x Uncertain	0.17	0.14	1.22	.223
Poor x Luck	0.09	-0.13	0.69	.492
Random Effects				
Group	**Term**	**Variance**	**SD**	
Group	Intercept	0.92	0.96	
Country	Intercept	0.28	0.53	

Statistical Details: Public Solution Contributions

Table S10. Public Solution Contributions by Wealth: Mixed-Effects Model

The table shows the output of our best-performing linear mixed-effects model (based on AIC / BIC criteria) fitted to test the effect of wealth on public solution contributions (as a proportion of wealth in each round). It included random fixed wealth and round effects and random country, group, and individual intercepts; while also allowing the effect of wealth to vary at the country level. Fixed effect results indicate that poor players contributed a higher proportion of their wealth than rich players. Random effect results indicate that proportional contributions varied more at the individual level than at group and country levels.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***t* value**	***p* value**
(Intercept)	8.17	0.22	37.70	< .001
Wealth Poor	2.71	0.25	29.67	< .001
Random Effects				
Group	**Term**	**Variance**	**SD**	**Correlation**
ID	Intercept	28.66	5.35	
Group	Intercept	3.84	1.96	
Country	Intercept	1.10	1.05	
Country	Intercept + Wealth Poor	1.54	1.24	.99
Residual		54.59	7.39	

Table S11. Public Solution Contributions by Wealth / Treatment: Mixed-Effects Model

The table shows the output of a linear mixed-effects model of players' contributions as a proportion of their wealth in each round. The model included wealth and treatment plus their interaction as fixed effects, as well as a separate fixed round effect to control for changes in contributions over time. It also included random intercepts at the individual, group, and country level to account for variability at these levels.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***t* value**	***p* value**
(Intercept)	8.13	0.34	23.59	< .001
Wealth Poor	2.70	0.24	11.06	< .001
Treatment Uncertain	-0.12	0.27	-0.44	.662
Treatment Luck	0.35	0.27	1.30	.192
Round	-0.55	0.01	-47.90	< .001
Poor x Uncertain	0.02	0.35	0.07	.943
Poor x Luck	-0.21	0.34	0.61	.539
Random Effects				
Group	**Term**	**Variance**		**SD**
ID	Intercept	29.16		5.40
Group	Intercept	3.70		1.92
Country	Intercept	2.71		1.65
Residual		54.59		7.39

Table S12. Public Solution Non-Provision and Beliefs in Individual Responsibility

The table shows the output of a generalised logistic mixed-effects model with the average belief in individual responsibility among group members as the predictor variable and public solution provision (1 = provision, 0 = non-provision) as the outcome variable. The model included random intercepts at the country level.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	1.17	0.25	4.76	< .001
Belief in Individual Responsibility	-0.12	0.04	-3.10	< .001
Random Effects				
Group	**Term**	**Variance**		**SD**
Country	Intercept	0.52		0.72

Table S13. Individualistic Beliefs and Round 1 Private Solution Contributions

The table shows the output of a linear mixed-effects model with participants' agreement that people should take greater responsibility for themselves (1-10) as the predictor variable and their first round contribution to the private solution (0-20) as the outcome variable. The model included random intercepts at the country level to account for variability within countries.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	6.83	0.38	17.95	< .001
Belief in Individual Responsibility	0.08	0.03	2.43	.015
Random Effects				
Group	**Term**	**Variance**		**SD**
Country	Intercept	3.64		1.91
Residual		51.48		7.18

Table S14. Public Solution Non-Provision and Round 1 Private Solution Contributions

The table shows the output of a generalised logistic mixed-effects model with the average first round contribution to the private solution among group members as the predictor variable and public solution provision (1 = provision, 0 = non-provision) as the outcome variable. As above, the model included random intercepts at the country level to account for national variability.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	0.99	0.15	6.83	< .001
Round 1 Contribution to Private Solution	-0.06	0.01	-8.81	< .001
Random Effects				
Group	**Term**	**Variance**	**SD**	
Country	Intercept	0.52	0.72	

Table S15. Public Solution Provision and Round 1 Public Solution Contributions

The table shows the output of a generalised logistic mixed-effects model with the average first round contribution to the public solution among group members as the predictor variable and public solution provision (1 = provision, 0 = non-provision) as the outcome variable. The model included random intercepts at the country level.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***z* value**	***p* value**
(Intercept)	-2.99	0.20	-15.28	< .001
Round 1 Contribution to Public Solution	0.11	0.01	19.45	< .001
Random Effects				
Group	**Term**	**Variance**	**SD**	
Country	Intercept	0.17	0.41	

Table S16. Conditional Cooperation and Public Solution Provision vs. Non-Provision

The table shows the output of a linear mixed-effects model with players' contributions as the outcome variable, three fixed effects (average public solution contribution from group members on previous round, round, and public solution provision) and random individual and country effects to account for variability at these levels.

Fixed Effects				
Term	**Estimate**	**Standard Error**	***t* value**	***p* value**
(Intercept)	5.02	0.13	39.43	< .001
Group Contribution Previous Round	-0.01	0.01	-0.54	.591
Public Solution Provided	1.45	0.09	16.41	< .001
Round	-0.47	0.01	-46.35	< .001
Group Contribution Previous Round x Public Solution Provided	0.23	0.01	18.10	< .001

Random Effects			
Group	**Term**	**Variance**	**SD**
ID	Intercept	4.96	2.23
Country	Intercept	0.25	0.50
Residual		21.46	4.63

References

1. Hofstede, G. Dimensionalizing cultures: The Hofstede model in context. *Online Read. Psychol. Cult.* **2**, 8 (2011).
2. Inglehart, R. & Welzel, C. *Modernization, Cultural Change, and Democracy: The Human Development Sequence*. (Cambridge University Press, 2005).
3. Gelfand, M. J. *et al.* Differences between tight and loose cultures: A 33-nation study. *Science* **332**, 1100–1104 (2011).
4. Haerpfer, C. *et al. World Values Survey: Round Seven – Country-Pooled Datafile*. (JD Systems Institute & WVSA Secretariat, 2020).
5. OECD. *Trust in Government*. https://www.oecd.org/en/data/indicators/trust-in-government.html (2024).
6. World Bank. GINI Index (World Bank Estimate). (2024).
7. World Bank. GDP per Capita (Current US$). (2024).
8. World Bank. *Worldwide Governance Indicators*. https://databank.worldbank.org/source/worldwide-governance-indicators# (2024).
9. Adler, N. E., Epel, E. S., Castellazzo, G. & Ickovics, J. R. Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. *Health Psychol.* **19**, 586 (2000).