ONLINE APPENDIX: Global Evidence on Economic Preferences

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A CONSTRUCTION AND CONTENT OF THE GLOBAL PREFERENCE SURVEY

AA. Overview

The cross-country dataset measuring risk aversion, patience, positive and negative reciprocity, altruism, and trust, was collected through the professional infrastructure of the Gallup World Poll 2012. The data collection process consisted of four steps. First, an experimental validation procedure was conducted to select the survey items. Second, the survey items were translated and quantitative amounts were adjusted to ensure comparability across countries. Third, we implemented a pre-test of the selected survey items in a variety of countries to ensure implementability in a culturally diverse sample. Fourth, the final data set was collected through the regular professional data collection efforts in the framework of the World Poll 2012.

AB. Survey Optimization Exercise

To maximize the behavioral validity of the preference measures, subject to constraints of necessary brevity, all underlying survey items were selected through an initial (constrained) optimization procedure (see Falk et al., 2016, for details). To this end, a sample of 409 German undergraduates completed standard state-of-the-art financially incentivized laboratory experiments designed to measure risk aversion, patience, positive and negative reciprocity, altruism, and trust. The same sample of subjects then completed a large battery of potential survey items. In a final step, for each preference, those survey items were selected which jointly performed best in explaining the behavior under real incentives observed in the choice experiments.

AC. Cross-Cultural Pilot and Adjustment of Survey Items

Prior to including the preference module in the Gallup World Poll 2012, it was tested in the field as part of the World Poll 2012 pre-test, which was conducted at the end of 2011 in 22 countries. The pre-test was run in 10 countries in central Asia (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Uzbekistan) 2 countries in South-East Asia (Bangladesh and Cambodia), 5 countries in Southern and Eastern Europe (Croatia, Hungary, Poland, Romania, Turkey), 4 countries in the Middle East and North Africa (Algeria, Jordan, Lebanon, and Saudi-Arabia), and 1 country in Eastern Africa (Kenya). In each country, the sample size was 10 to 15 people. Overall, more than 220 interviews were conducted. In most countries, the sam-

ple was mixed in terms of gender, age, educational background, and area of residence (urban/rural). The main goal of the pre-test was to receive feedback on each item from various cultural backgrounds in order to assess potential difficulties in understanding and differences in the respondents' interpretation of items. Based on respondents' feedback and suggestions, minor modifications were made to several items before running the survey as part of the World Poll 2012.

Participants in the pre-test were asked to state any difficulties in understanding the items and to rephrase the meaning of items in their own words. If they encountered difficulties in understanding or interpreting items, respondents were asked to make suggestions on how to modify the wording of the item in order to attain the desired meaning.

Overall, the understanding of both the qualitative items and the quantitative items was satisfactory. In particular, no interviewer received any complaints regarding difficulties in assessing the quantitative questions or understanding the meaning of the probability used in the hypothetical risky choice items. When asked about rephrasing the qualitative items in their own words, most participants seemed to have understood the items in exactly the way that was intended. Nevertheless, some (sub-groups of) participants suggested adjustments to the wording of some items. This resulted in minor changes to four items, relative to the "original" experimentally validated items:

- 1. The use of the term "lottery" in hypothetical risky choices was troubling to some Muslim participants. As a consequence, we dropped the term "lottery" and replaced it with "draw".
- 2. The term "charity" caused confusion in Eastern Europe and Central Asia, so it was replaced it with "good cause".
- 3. Some respondents asked for a clarification of the question asking about one's willingness to punish unfair behavior. This feedback lead to splitting the question into two separate items, one item asking for one's willingness to punish unfair behavior towards others, and another asking for one's willingness to punish unfair behavior towards oneself.
- 4. When asked about hypothetical choices between monetary amounts today versus larger amounts one year later, some participants, especially in countries with current or relatively recent phases of volatile and high inflation rates, stated that their answer would depend on the rate of inflation, or said that they would always take the immediate payment due to uncertainty with respect to future inflation. Therefore, we decided to add the following phrase to each question involving

hypothetical choices between immediate and future monetary amounts: "Please assume there is no inflation, i.e., future prices are the same as today's prices."

AD. Sampling and Survey Implementation

AD.1. Background

The collection of our preference data was embedded into the regular World Poll 2012.¹ The international polling company Gallup has conducted an annual World Poll since 2005, in which it surveys representative population samples in almost every country – partly on a rotating basis – around the world on, e.g., economic, social, political, and environmental issues. The GPS was conducted in a subset of countries that were surveyed by Gallup in 2012.

AD.2. Countries Included in the GPS and Selection Criteria

The goal when selecting countries was to ensure representative coverage of the global population. Thus, countries from each continent and each region within continents were chosen. Another goal was to maximize variation with respect to observables, such as GDP per capita, language, historical and political characteristics, or geographical location and climatic conditions. Accordingly, the selection process favored non-neighboring and culturally dissimilar countries. This procedure resulted in the following sample of 76 countries:

East Asia and Pacific: Australia, Cambodia, China, Indonesia, Japan, Philippines, South Korea, Thailand, Vietnam

Europe and Central Asia: Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Italy, Kazakhstan, Lithuania, Moldova, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom

Latin America and Caribbean: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Guatemala, Haiti, Mexico, Nicaragua, Peru, Suriname, Venezuela

Middle East and North Africa: Algeria, Egypt, Iran, Iraq, Israel, Jordan, Morocco, Saudi Arabia, United Arab Emirates

North America: United States, Canada

South Asia: Afghanistan, Bangladesh, India, Pakistan, Sri Lanka

Sub-Saharan Africa: Botswana, Cameroon, Ghana, Kenya, Malawi, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Zimbabwe

¹See http://www.gallup.com/services/170945/world-poll.aspx.

AD.3. Sampling within Countries

In general, samples are probability based and nationally representative of the resident population aged 15 and older. The coverage area is the entire country including rural areas, and the sampling frame represents the entire civilian, non-institutionalized adult population of the country. Exceptions are noted in Table 1 and include areas where the safety of the interviewing staff is threatened and scarcely populated areas.²

Selecting Households and Respondents

In countries in which face-to-face interviews are conducted, the first stage of sampling is the identification of primary sampling units (PSUs), consisting of clusters of households, which are stratified by population size and/or geography. Clustering is achieved through one or more stages of sampling. Where population information is available, sample selection is based on probabilities proportional to population size. If population information is not available, Gallup uses simple random sampling. Next, households are selected using a random route procedure. Unless an outright refusal occurs, interviewers make up to three attempts to survey the sampled household. To increase the probability of contact and completion, interviewers make attempts at different times of the day, and when possible, on different days. If the interviewer cannot obtain an interview at the initial sampled household, he or she uses a simple substitution method.

In countries where telephone interviewing is employed, Gallup uses a random digit dialing method or a nationally representative list of phone numbers. In select countries where cellphone penetration is high, Gallup uses a dual sampling frame. In face-to-face and telephone methodologies, random respondent selection within household is achieved by using either the latest birthday or Kish grid method.³ Gallup makes at least three attempts to reach a person in each household.

In a few Middle East and Asian countries, gender-matched interviewing is required, and probability sampling with quotas is implemented during the final stage of selection. Gallup implements quality control procedures to validate the selection of correct samples and that the correct person is randomly selected in each household.

Sampling Weights

Ex post, data weighting is used to ensure a nationally representative sample for each

²This paragraph is taken from www.gallup.com/178667/gallup-world-poll-work.aspx

³The latest birthday method means that the person living in the household whose birthday among all persons in the household was the most recent (and who is older than 15) is selected for interviewing. With the Kish grid method, the interviewer selects the participants within a household by using a table of random numbers. The interviewer will determine which random number to use by looking at, e.g., how many households he or she has contacted so far (e.g., household no. 8) and how many people live in the household (e.g., 3 people, aged 17, 34, and 36). For instance, if the corresponding number in the table is 7, he or she will interview the person aged 17.

country and is intended to be used for calculations within a country. These sampling weights are provided by Gallup. First, base sampling weights are constructed to account for geographic oversamples, household size, and other selection probabilities. Second, post-stratification weights are constructed. Population statistics are used to weight the data by gender, age, and, where reliable data are available, education or socioeconomic status.

Overview: Countries, Respondents and Interview Mode

Table 1 GPS-countries: Sample size, interview mode, interview language, and sample exclusions

Country	# Obs.	Interview Mode	Interview Language	Exclusions (Samples are nationally representative unless noted otherwise)
Afghanistan	1,000	Face-to-Face	Dari, Pashto	Gender-matched sampling was used during the final stage of selection.
Algeria	1,022	Face-to-Face	Arabic	Sparsely populated areas in the far South were excluded, representing appr. 10% of the population.
Argentina	1,000	Face-to-Face	Spanish	
Australia	1,002	Landline and Cellular Telephone	English	
Austria	1,001	Landline and Cellular Telephone	German	
Bangladesh	999	Face-to-Face	Bengali	Three hill districts in Chittagong (Rangmati, Khagrachori, and Bandarban) were excluded for security reasons, representing appr. 1% of the population.
Bolivia	998	Face-to-Face	Bolivia	
Brazil	1,003	Face-to-Face	Portuguese	
Cambodia	1,000	Face-to-Face	Khmer	
Cameroon	1,000	Face-to-Face	English, French, Fulfulde	The sample has a larger-than-expected proportion of respondents who report completing secondary education when compared with the data used for post-stratification weighting.
Canada	1,001	Landline and Cellular Telephone	English, French	Yukon, Northwest Territories, and Nunavut

were excluded from the sample.

Xinjiang and Tibet were excluded from the sample representing less than 2% of the population.

South Ossetia and Abkhazia were not included for the safety of interviewers, representing approx. 7% of the population

				, vo or the population.
Germany	997	Landline and Cellular Telephone	German	
Ghana	1,000	Face-to-Face	English, Ewe, Twi, Dagbani	
Greece	1,000	Face-to-Face	Greek	
Guatemala	1,000	Face-to-Face	Spanish	
Haiti	504	Face-to-Face	Creole	
Hungary	1,004	Face-to-Face	Hungarian	
India	2,539	Face-to-Face	Hindi, Tamil, Kannada,	Excluded population living in Northeast states
			Telugu, Marathi, Gujarati,	and on remote islands, representing less than
			Bengali, Malayalam, Odia,	10% of the population.

Spanish

Chinese

Spanish

Spanish

Croatian

Czech

Arabic

Finnish

French

Estonian, Russian

Georgian, Russian

Chile

China

Colombia

Costa Rica

Czech Republic

Croatia

Egypt

Estonia

Finland

France

Georgia

1.003 Face-to-Face

1,000 Face-to-Face

1,000 Face-to-Face

Face-to-Face

Face-to-Face

Face-to-Face

Face-to-Face

Face-to-Face

1,000

1,005 1,020

1,004

992

2,574 Face-to-Face, Landline Telephone

1,000 Landline and Cellular Telephone

1,001 Landline and Cellular Telephone

Indonesia	1,000	Face-to-Face	Bahasa Indonesia	
Iran	2,507	Landline and Cellular Telephone	Farsi	
Iraq	1,000	Face-to-Face	Arabic, Kurdish	
Israel	999	Face-to-Face	Hebrew, Arabic	The sample does not include the area of East
				Jerusalem.
Italy	1,004	Landline and Cellular Telephone	Italian	
Japan	1,000	Landline Telephone	Japanese	Excluded 12 municipalities near the nuclear
				power plant Fukushima, representing less than
				1% of the population of Japan.
Jordan	1,000	Face-to-Face	Arabic	Excluded population living in Madaba, Mafraq,
				Ajloun, Ma'an, Tafiliah, and Aqaba governorates,
				representing approx. 14% of the population.
Kazakhstan	999	Face-to-Face	Kazakh, Russian	
Kenya	1,000	Face-to-Face	English, Swahili	
Lithuania	999	Face-to-Face	Lithuanian	
Malawi	1,000	Face-to-Face	Chichewa, English, Tumbuka	
Mexico	1,000	Face-to-Face	Spanish	
Moldova	1,000	Face-to-Face	Romanian, Russian	Transnistria (Prednestrovie) was excluded for
				safety of interviewers, representing approx.
				13% of the population.
Morocco	1,000	Face-to-Face	Moroccan Arabic, French,	Excludes the Southern provinces, representing
			Berber	approx. 3% of the population.
Netherlands	1,000	Landline and Cellular Telephone	Dutch	
Nicaragua	1,000	Face-to-Face	Spanish	
Nigeria	1,000	Face-to-Face	English, Yoruba, Hausa,	

			Igbo, Pidgin English	
Pakistan	1,004	Face-to-Face	Urdu	Did not include Azad and Jammu Kashmir (AJK), representing approx. 5% of the population. Gender-matched sampling was used during the
				final stage of selection.
Peru	1,000	Face-to-Face	Spanish	
Philippines	1,000	Face-to-Face	Filipino, Iluko, Hiligaynon,	
			Cebuano, Bicol, Waray,	
			Maguindanaon	
Poland	999	Face-to-Face	Polish	
Portugal	998	Landline and Cellular Telephone	Portuguese	
Romania	994	Face-to-Face	Romanian	
Russia	1,498	Face-to-Face	Russian	North Ossetia, Kabardino-Balkariya, and remote small settlements in far-Eastern Siberia were excluded, representing approx. 5% or less of the population.
Rwanda	1,000	Face-to-Face	Kinyarwanda, French,	
			English	
Saudi Arabia	1,035	Face-to-Face	Arabic	Includes Saudis and Arab expatriates; non-Arabs were excluded (representing approx. 20% of the adult population). Gender-matched sampling was used during the final stage of selection.
Serbia	1,023	Face-to-Face	Serbian	
South Africa	1,000	Face-to-Face	Afrikaans, English, Sotho,	
			Zulu, Xhosa	

South Korea	1,000	Landline and Cellular Telephone	Korean	
Spain	1,000	Landline and Cellular Telephone	Spanish	
Sri Lanka	1,000	Face-to-Face	Sinhala, Tamil	
Suriname	504	Face-to-Face	Dutch	
Sweden	1,000	Landline and Cellular Telephone	Swedish	
Switzerland	1,000	Landline and Cellular Telephone	German, French, Italian	
Tanzania	1,000	Face-to-Face	Swahili, English	The Tanga region was excluded, representing
				approx. 5% of the population.
Thailand	1,000	Face-to-Face	Thai	
Turkey	1,000	Face-to-Face	Turkish	
Uganda	1,000	Face-to-Face	English, Luganda,	
			Ateso, Runyankole	
Ukraine	1,000	Face-to-Face	Russian, Ukrainian	
United Arab Emirates	1,000	Face-to-Face	Arabic	Includes only Emiratis and Arab expatriates;
				non-Arabs were excluded (representing more than
				half of the adult population).
United Kingdom	1,030	Landline and Cellular Telephone	English	
United States	1,072	Landline and Cellular Telephone	English, Spanish	
Venezuela	999	Face-to-Face	Spanish	
Vietnam	1,000	Face-to-Face	Vietnamese	
Zimbabwe	1,000	Face-to-Face	English, Ndebele, Shona	

AE. Survey Items of the GPS

AE.1. Translation of Items

The items of the preference module were translated into the major languages of each target country. The translation process involved three steps. As a first step, a translator suggested an English, Spanish or French version of a German item, depending on the region. A second translator, being proficient in both the target language and in English, French, or Spanish, then translated the item into the target language. Finally, a third translator would review the item in the target language and translate it back into the original language. If differences between the original item and the back-translated item occurred, the process was adjusted and repeated until all translators agreed on a final version.

AE.2. Adjustment of Monetary Amounts in Quantitative Items

All items involving hypothetical monetary amounts were adjusted for each country in terms of their real value. Monetary amounts were calculated to represent the same share of a country's median income in local currency as the share of the amount in Euro of the German median income since the validation study had been conducted in Germany. Monetary amounts used in the validation study with the German sample were "round" numbers to facilitate easy calculations (e.g., the expected return of a lottery with equal chances of winning and losing) and to allow for easy comparisons (e.g., 100 Euro today versus 107.50 in 12 months). To proceed in a similar way in all countries, monetary amounts were always rounded to the next "round" number. For example, in the quantitative items involving choices between a lottery and varying safe options, the value of the lottery was adjusted to a round number. The varying safe options were then adjusted proportionally as in the original version. While this necessarily resulted in some (very minor) variations in the real stake size between countries, it minimized cross-country differences in the understanding the quantitative items due to difficulties in assessing the involved monetary amounts.

AF. Wording of Survey Items

In the following, "willingness to act" indicates the following introduction: We now ask for your willingness to act in a certain way in four different areas. Please again indicate your answer on a scale from 0 to 10, where 0 means you are "completely unwilling to do so" and a 10 means you are "very willing to do so". You can also use any numbers between 0 and 10 to indicate where you fall on the scale, like 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

Similarly, "self-assessments" indicate that the respective statement was preceded by the following introduction: *How well do the following statements describe you as a person? Please indicate your answer on a scale from 0 to 10. A 0 means "does not describe me at all" and a 10 means "describes me perfectly". You can also use any numbers between 0 and 10 to indicate where you fall on the scale, like 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.*

AF.1. Patience

1. (Sequence of five interdependent quantitative questions:) Suppose you were given the choice between receiving a payment today or a payment in 12 months. We will now present to you five situations. The payment today is the same in each of these situations. The payment in 12 months is different in every situation. For each of these situations we would like to know which you would choose. Please assume there is no inflation, i.e, future prices are the same as today's prices. Please consider the following: Would you rather receive 100 Euro today or x Euro in 12 months?

The precise sequence of questions was given by the "tree" logic in Figure 1.

2. (Willingness to act:) *How willing are you to give up something that is beneficial for you today in order to benefit more from that in the future?*

AF.2. Risk Taking

- (Similar to self-assessment:) Please tell me, in general, how willing or unwilling you are to take risks. Please use a scale from 0 to 10, where 0 means "completely unwilling to take risks" and a 10 means you are "very willing to take risks". You can also use any numbers between 0 and 10 to indicate where you fall on the scale, like 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- 2. (Sequence of five interdependent quantitative questions:) Please imagine the following situation. You can choose between a sure payment of a particular amount of money, or a draw, where you would have an equal chance of getting amount x or getting nothing. We will present to you five different situations. What would you prefer: a draw with a 50 percent chance of receiving amount x, and the same 50 percent chance of receiving nothing, or the amount of y as a sure payment? The precise sequence of questions was given by the "tree" logic in Figure S2.

AF.3. Positive Reciprocity

- 1. (Self-assessment:) When someone does me a favor I am willing to return it.
- 2. (Hypothetical situation:) Please think about what you would do in the following situation. You are in an area you are not familiar with, and you realize you lost your way. You ask a stranger for directions. The stranger offers to take you to your destination. Helping you costs the stranger about 20 Euro in total. However, the stranger says he or she does not want any money from you. You have six presents with you. The cheapest present costs 5 Euro, the most expensive one costs 30 Euro. Do you give one of the presents to the stranger as a "thank-you"-gift? If so, which present do you give to the stranger? No present / The present worth 5 / 10 / 15 / 20 / 25 / 30 Euro.



Figure 1 Tree for the staircase time task (numbers = payment in 12 months, A = choice of "100 euros today", B = choice of "x euros in 12 months". The staircase procedure worked as follows. First, each respondent was asked whether they would prefer to receive 100 euros today or 154 euros in 12 months from now (leftmost decision node). In case the respondent opted for the payment today ("A"), in the second question the payment in 12 months was adjusted upwards to 185 euros. If, on the other hand, the respondent chose the payment in 12 months, the corresponding payment was adjusted down to 125 euros. Working further through the tree follows the same logic.



Figure 2 Tree for the staircase risk task (numbers = sure payment, A = choice of lottery, B = choice of sure payment). The staircase procedure worked as follows. First, each respondent was asked whether they would prefer to receive 160 euros for sure or whether they preferred a 50:50 chance of receiving 300 euros or nothing. In case the respondent opted for the safe choice ("B"), the safe amount of money being offered in the second question decreased to 80 euros. If, on the other hand, the respondent opted for the gamble ("A"), the safe amount was increased to 240 euros. Working further through the tree follows the same logic.

AF.4. Negative Reciprocity

- 1. (Self-assessment:) If I am treated very unjustly, I will take revenge at the first occasion, even if there is a cost to do so.
- 2. (Willingness to act:) How willing are you to punish someone who treats you unfairly, even if there may be costs for you?
- 3. (Willingness to act:) *How willing are you to punish someone who treats others unfairly, even if there may be costs for you?*

AF.5. Altruism

- (Hypothetical situation:) Imagine the following situation: Today you unexpectedly received 1,000 Euro. How much of this amount would you donate to a good cause? (Values between 0 and 1000 are allowed.)
- 2. (Willingness to act:) *How willing are you to give to good causes without expecting anything in return?*

AF.6. Trust

(Self-assessment:) I assume that people have only the best intentions.

AG. Correction for Implementation Errors

The GPS survey items were implemented with errors in a few countries. While these errors are minor, in this section we describe them in detail and explain how we recode the raw data to take implementation errors into account. To illustrate the majority of implementation errors and how we corrected them, consider Figures 3 and 4, which are the abstract versions of Figures 2 and 1, respectively. A typical error is that the payouts at a given node were not implemented correctly. In these cases, we still have unconfounded information about the preferences of respondents, i.e., behavior up to the erroneous node. For example, suppose that an error exists at node 7 in Figure 3. We then know that the willingness to take risks variable must assume a value between 1 and 4. We impute the midpoint of this interval, 2.5, for such respondents.

AG.1. Staircase Risk

1. Indonesia; interview language Bahasa: At node 12, respondents should have faced a safe payment of IDR 36,000 (consult the uploaded questionnaire to verify this), but actually faced a safe payment of IDR 26,000. We hence code all 20 respondents who arrived at a willingness to take risk of 9 or 10 as 9.5 (the midpoint of the interval).

- 2. Pakistan, interview language Urdu: At node 26, respondents should have faced a safe payment of PKR 1040, but actually faced a safe payment of PKR 1140. We hence code all 101 respondents who arrived at willingness to take risk of 25-28 as 26.5.
- 3. Ukraine, interview language Ukrainian: At node 16, respondents should have faced a safe payment of UAH 130, but actually faced a safe payment of UAH 140. We hence code all 12 respondents who arrived at a willingnes to take risks of 13-14 as 13.5.
- 4. Vietnam, interview language Vietnamese: At node 6, all respondents should have faced a safe payment of VND 100,000, but actually faced a safe payment of VND 140,000. We hence code all 32 respondents who arrived at a willingness to take risks of 5-6 as 5.5. In addition, at node 31, all respondents should have faced a safe payment of VND 620,000, but actually faced a safe payment of VND 580,000. We hence code all 118 respondents who arrived at a willingness to take risks of 31-32 as 31.5.
- 5. Malawi, interview language Chichewa: At node 5, respondents should have faced a safe payment of MWK 175, but actually faced a safe payment of MWK 150. We hence code all 21 respondents who arrived at a willingness to take risks of 7-8 as 7.5.
- 6. Iran, interview language Farsi: All stakes were multiplied by a factor of 10. We cannot correct for this in the coding procedure. (2,507 respondents)
- 7. Uganda, interview language Ruanyankole: In all questions, the risky payoff was multiplied by a factor of 10. We cannot correct for this in the coding procedure. (132 respondents)

AG.2. Staircase Patience

- 1. Vietnam; interview language Vietnamese: At node 14, respondents should have faced a future payment of VND 234,000, but actually faced a safe payment of VND 217,000. We hence code all 36 respondents who arrived at a patience of 17-20 as 18.5. In addition, at node 18, respondents should have faced a future payment of VND 323,000, but actually faced a future payment of VND 246,000. We hence code all 676 respondents who arrived at a patience of 1-8 as 4.5.
- 2. Iran, interview language Farsi: All stakes were multiplied by a factor of 10. We cannot correct for this in the coding procedure. (2,507 respondents)

AG.3. Donation Variable

1. Iraq, interview language Kurdish: Respondents should have been asked how much of IQD 300,000 they would like to donate, but were actually asked how much of IQD 30,000 they would like to donate. Given that our "donation" variable is simply the fraction of



Figure 3 Tree for the staircase risk task (A = choice of lottery, B = choice of sure payment). Node labeling is for expository purposes only.



Figure 4 Tree for the staircase time task (A = choice of "100 euros today", B = choice of "x euros in 12 months". Node labeling is for expository purposes only.

the monetary endowment that respondents were willing to donate, we divide the actual donation amount of all Kurdish-speaking Iraqis by 30,000 rather than 300,000.

AH. Imputation of Missing Values

In order to efficiently use all available information in our data, missing survey items were imputed based on the following procedure:

- If one (or more) survey items for a given preference were missing, then the missing items were predicted using the responses to the available items. The procedure was as follows:
 - Suppose the preference was measured using two items, call them *a* and *b*. For those observations with missing information on *a*, the procedure was to predict its value based on the answer to *b* and its relationship to *a*, which was estimated by regressing *b* on *a* for the sub-sample of subjects who had nonmissing information on both, *a* and *b* (on the world sample).
 - For the unfolding-brackets time and risk items, the imputation procedure was similar, but made additional use of the informational content of the responses of participants who started but did not finish the sequence of the five questions. Again suppose that the preference is measured using two items and suppose that a (the staircase measure) is missing. If the respondent did not even start the staircase procedure, then imputation was done using the methodology described above. On the other hand, if the respondent answered between one and four of the staircase questions, a was predicted using a different procedure. Suppose the respondent answered four items such that his final staircase outcome would have to be either x or y. A probit was run of the "x vs. y" decision on b, and the corresponding coefficients were used to predict the decision for all missings (note that this constitutes a predicted probability). The expected staircase outcome was then obtained by applying the predicted probabilities to the respective staircase endpoints, i.e., in this case xand y. If the respondent answered three (or less) questions, the same procedure was applied, the only difference being that in this case the obtained predicted probabilities were applied to the expected values of the staircase outcome conditional on reaching the respective node. Put differently, the procedure outlined above was applied recursively by working backwards through the "tree" logic of the staircase procedure, resulting in an expected value for the outcome node.
 - If all survey items for a given preference were missing, then no imputation took place.
- Across the 12 survey items, between 0% and 8% of all responses had to be imputed.

AI. Computation of Preference Indices at the Individual Level

For each of the traits (risk preferences, time preferences, positive reciprocity, negative reciprocity, altruism, and trust), an individual-level index was computed that aggregated responses across different survey items. Each of these indices was computed by (i) computing the z-scores of each survey item at the individual level and (ii) weighing these z-scores using the weights resulting from the experimental validation procedure of Falk et al. (2016). Formally, these weights are given by the coefficients of an OLS regression of observed behavior in the experimental validation study on responses to the respective survey items, such that the weights sum to one. In practice, for almost all preferences, the coefficients assign roughly equal weight to all corresponding survey items. The weights are given by:

Patience = $0.7115185 \times \text{Staircase patience} + 0.2884815 \times \text{Will.}$ to give up sth. today Risk taking = $0.4729985 \times \text{Staircase risk} + 0.5270015 \times \text{Will.}$ to take risks Pos. reciprocity = $0.4847038 \times \text{Will.}$ to return favor + $0.5152962 \times \text{Size of gift}$ Neg. reciprocity = $0.6261938/2 \times \text{Will.}$ to punish if oneself treated unfairly + $0.6261938/2 \times \text{Will.}$ to punish if other treated unfairly + $0.3738062 \times \text{Will.}$ to take revenge Altruism = $0.6350048 \times \text{Will.}$ to give to good causes + $0.3649952 \times \text{Hypoth.}$ donation

Trust: The survey included only one corresponding item.

As explained above, in the course of the pre-test, the negative reciprocity survey item asking people for their willingness to punish others was split up into two questions, one asking for the willingness to punish if oneself was treated unfairly and one asking for the willingness to punish if someone was treated unfairly. In order to apply the weighting procedure from the validation procedure to these items, the weight of the original item was divided by two and these modified weights were assigned to the new questions.

AJ. Computation of Country Averages

In order to compute country-level averages, individual-level data were weighted with the sampling weights provided by Gallup, see above. These sampling weights ensure that our measures correctly represent the population at the country level.

B Additional Descriptive Results

BA. Histograms by Preference

BA.1. Individual Level



Figure 5 Distribution of preferences at individual level. The figure plots the distribution of standardized preference measures at the individual level. All data are standardized at the level of the individual in the full sample.

BA.2. Country Level



Figure 6 Distribution of preferences at country level. The figure plots the distribution of country averages of standardized preferences. All data are standardized at the level of the individual using the full sample.

C CORRELATIONS AMONG PREFERENCES AT THE INDIVIDUAL LEVEL

Table 2 reports the correlation structure among preferences at the individual level. The correlations are computed conditional on country fixed effects to ensure that level differences in preferences across countries do not spuriously generate the results. At the same time, the correlation structure without country fixed effects is quantitatively very similar and is available upon request.

 Table 2 Partial correlations between preferences at individual level conditional on country fixed effects

	Patience	Risk taking	Positive reciprocity	Negative reciprocity	Altruism	Trust
Patience	1					
Risk taking	0.210***	1				
Positive reciprocity	0.084***	0.068***	1			
Negative reciprocity	0.112***	0.228^{***}	0.010***	1		
Altruism	0.098***	0.106***	0.329***	0.067***	1	
Trust	0.044***	0.047***	0.114***	0.075***	0.151***	1

Notes. Pairwise partial correlations between preferences at individual level, conditional on country fixed effects. * p < 0.10, ** p < 0.05, *** p < 0.01.

The next step in the analysis shows that the significant individual-level correlations among preferences in the world sample are not driven by a few outlier countries only. To this end, Table 3 shows the number of countries in which each pair of preferences is significantly correlated at the 1% level. The results show that in most cases the correlations are significant in a large fraction of the 76 countries.

	Patience	Risk taking	Positive reciprocity	Negative reciprocity	Altruism	Trust
Patience						
Risk taking	71					
Positive reciprocity	40	30				
Negative reciprocity	53	73	19			
Altruism	47	50	76	32		
Trust	21	24	54	37	62	

Table 3 Number of countries in which preferences are significantly correlated

Notes. Number of countries for which a given pair of preferences is significantly correlated at the 1% level.

D DISCUSSION OF MEASUREMENT ERROR AND WITHIN-VERSUS BETWEEN-COUNTRY VARIATION

In the presence of measurement error, a simple variance decomposition as shown in Table 2 tends to overstate the relative importance of within-country variation in preferences. This is because measurement error would be part of the within-country variation, whereas the aggregation to country averages mitigates measurement error and thus removes this source of variation. This section provides evidence that measurement error is unlikely to be large enough to drive the result.

To illustrate the impact of measurement error, consider a simple regression of an individuallevel preference measure M on a matrix of country dummies D

$$M = D'\gamma + \epsilon.$$

In a setting without measurement error ϵ would be interpreted as individual specific effects that are not explained by the variation between countries. The total variance of *M* is given by

$$Var(M) = Var(\delta) + Var(\epsilon) + 2cov(\delta, \epsilon)$$

where $\delta = D'\gamma$. Note that the R² from a regression of *M* on the country dummies (i.e., $Var(\delta)/Var(M)$) could be interpreted as the between country-variation, i.e., the fraction of total variation explained by country dummies, if individual effects are unrelated to country effects.

If, however, the preference measure M measures the true preference parameter P with error, denoted e, the residual variation of the regression above does not only capture individual effects. Assume that M is a linear function of P and e, i.e.,

$$M = P + e$$

such that we can rewrite

$$P + e = \delta + \epsilon$$

The total variance of the preference is hence

$$Var(P) = Var(\delta) + Var(\epsilon) - Var(e),$$

assuming that $\epsilon \perp \delta$ and $e \perp P$.

The regression model still allows identifying $Var(\delta)$, but the share of preference variation that is truly explained by the between-country variation is no longer given by the R², $Var(\delta)/Var(M)$, but rather by $Var(\delta)/Var(P)$. To assess whether between-country or withincountry effects explain a larger share of total variation, one needs to compare $Var(\delta)/Var(P)$ to $Var(\epsilon)/Var(P)$. Since Var(P) = Var(M) - Var(e), Var(e) needs to be determined.

The variance of measurement error, Var(e), is not directly observable, but estimates of test-

retest correlations of relevant preference measures are available, which can be used to gauge the size of Var(e). Based on arguments of plausibility, the variance of the measurement error does not appear to be large enough to invalidate the claim that the within-country variation is smaller than the between-country variation. Consider how large the proportion of measurement error in the total variation of M can be, with between-country effects still explaining a smaller share of variation than individual-specific effects. Note that between- and within-country variation add up to total variation in preferences absent measurement error: $Var(\delta)/Var(P) = 1$ - $Var(\epsilon)/Var(P)$. Thus, between-country effects explain a relatively smaller share of total variation if $Var(\delta)/Var(P) < 0.50$. Letting q with $0 < q \le 1$ be the fraction of measurement error in M, this condition can be evaluated by scaling up the R² from a regression of M on the set of country dummies by 1/(1-q). I.e., if $Var(\delta)/(Var(M)(1-q)) < 0.5$, the between-country variation is smaller than the within-country variation, even accounting for measurement error.

Take, as an example, the estimate for risk-taking in Table ??, for which the regression of the risk measure on the set of country dummies yields an R² of 0.09. Solving R² < 0.5(1-q) for q shows that as long as q < 0.828, the within country variation exceeds the between country variation. Previous work has shown that the test-retest correlation of the single components of this particular risk measure is around 0.6 (Beauchamp et al., 2015). This implies that, in order for measurement error alone to be able to explain the greater variation of preferences within-country than between-country, measurement error would have to be twice as large as existing evidence suggests.

E Additional Results on Individual-Level Determinants

EA. Robustness Check for Individual-Level Determinants

						Danandan	traniabla					
	Dati	anco	Diele t	aking	Dos rec	riprocity	Nog ro	piprocity	Altr	uiem	Tr	1101
	Fall	ence		aking	F05. Tet	.iprocity	ineg. ieu	lipiocity				ust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Age	0.72***	0.74***	-0.083	0.47**	1.02***	0.90***	-0.36*	-0.19	-0.0061	0.041	0.37*	-0.0022
	(0.17)	(0.18)	(0.20)	(0.20)	(0.17)	(0.17)	(0.19)	(0.19)	(0.14)	(0.15)	(0.21)	(0.15)
Age squared	-1.45***	-1.40***	-1.20***	-1.74***	-1.17***	-1.06***	-0.45**	-0.66***	0.015	-0.17	0.032	0.30*
	(0.20)	(0.21)	(0.21)	(0.20)	(0.18)	(0.17)	(0.18)	(0.19)	(0.15)	(0.16)	(0.20)	(0.16)
1 if female	-0.056***	-0.037***	-0.17***	-0.16***	0.049***	0.060***	-0.13***	-0.13***	0.10***	0.094***	0.066***	0.048***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Subj. math skills	0.028***	0.023***	0.046***	0.040***	0.038***	0.037***	0.040***	0.037***	0.044***	0.039***	0.056***	0.056***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Country FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Region FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Additional controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	78501	57616	78445	57588	78869	57867	77521	56973	78632	57675	77814	57110
R^2	0.17	0.21	0.17	0.24	0.13	0.23	0.11	0.19	0.13	0.20	0.11	0.17

Table 4 Correlates of preferences at individual level

Notes. OLS estimates, standard errors (clustered at country level) in parentheses. Coefficients are in terms of units of standard deviations of the respective preference (relative to the individual world mean). Additional controls include age, age squared, gender, subjective math skills, log household income, indicators for religious affiliation, a subjective institutional quality index, and a subjective health index. See Appendix K for additional information about the variables.* p < 0.10, ** p < 0.05, *** p < 0.01.

EB. Overview of Gender and Cognitive Ability Coefficients by Country

	Patie	ence	Risk t	aking	Altr	uism	Pos. rec	iprocity	Neg. rec	iprocity	Tr	ust
Country	1 if female	Math	1 if female	Math	1 if female	Math	1 if female	Math	1 if female	Math	1 if female	Math
Afghanistan	0.2724856***	0.0213178*	-0.2335748***	0.0260876**	0.0556845	-0.0037204	0.0281411	-0.0092132	-0.2875925***	0.0254564**	-0.2536288***	0.0639068***
Algeria	-0.0658873	0.0060542	-0.3064909***	0.0408417***	0.1147917*	0.0695572***	0.1759115***	0.0748416***	-0.1509905**	0.0432545***	0.1473153**	0.0705846***
Argentina	-0.1110939*	0.0259577**	-0.2269998***	0.0225863**	0.2086914***	0.039515***	0.1444459**	0.0551032***	-0.2340497***	-0.0069139	0.0682802	0.0670331***
Australia	-0.1003588	0.0550319***	-0.3263264***	0.024452*	0.2748187***	0.0203773	0.0607876	0.0331273**	-0.3307016***	0.0029042	0.2626135***	0.0589896***
Austria	-0.2884915***	0.0359101***	-0.3726592***	0.0335977***	0.2066659***	0.0255774**	0.0503589	0.0383234***	-0.201408***	0.0196315	0.2703306***	0.0475438***
Bangladesh	0.0370786	0.0188521*	-0.1259582*	0.0215025*	-0.1118967*	0.0724286***	-0.0839205	0.0732172***	-0.20534***	0.0401006***	-0.0517665	0.0601852***
Bolivia	-0.198691***	0.0025335	-0.2465741***	0.0260211**	0.3249568***	0.0587651***	0.1388471**	0.0549129***	-0.129908**	0.0153723	0.0306292	0.0334277**
Bosnia & Herz.	0.0667658	0.0227065*	-0.1370765**	0.0244376**	0.0455824	0.0864914***	0.085203	0.0773008***	-0.1286057**	0.0528447***	0.035797	0.069203***
Botswana	0.0093993	0.0068404	-0.0878077	0.0035213	0.1131841*	0.0089081	0.2776566***	0.0169728	-0.1847614***	0.0415959***	0.1074731*	0.058415***
Brazil	0.025822	0.0267448**	-0.0819355	0.0570898***	0.1686272**	0.026017**	0.1664859**	0.0150531	0.0355462	0.0632912***	0.001747	0.0502974***
Cambodia	-0.1998204***	0.0244426*	-0.1660005**	0.0466469***	-0.156886**	0.0667391***	-0.2143732***	-0.0019283	-0.1060554	0.1246258***	-0.1474736**	0.0639483***
Cameroon	-0.0337284	0.026138**	-0.0404419	0.0445175***	0.0942265	-0.0067603	0.0907214	0.03008**	-0.1395037**	0.0209044	-0.0950668	0.0054684
Canada	-0.237456***	0.0109136	-0.3297262***	-0.0046918	0.231259***	0.0122154	0.0939327	0.0351703***	-0.3975616***	0.0045492	0.2909903***	0.0413292***
Chile	-0.0124782	0.0430655***	-0.1766591***	0.0408576***	0.2292754***	0.0376724***	0.093706	0.031871***	-0.1011824	0.0239633**	-0.0246146	0.0637589***
China	-0.1289326***	0.0268164***	-0.2116505***	0.0584812***	0.1547637***	0.0558027***	-0.0141884	0.0508399***	-0.1954164***	0.0445535***	0.0914878**	0.0388344***
Colombia	0.0344426	0.0312929***	-0.0884147	0.0779087***	0.3181356***	0.0395836***	0.1722516**	0.0345696***	-0.0514334	0.0504932***	0.0864821	0.0495515***
Costa Rica	-0.0677685	0.0551973***	-0.1147797*	0.0624097***	0.123785**	0.0647681***	0.0761908	0.0247238**	-0.0737785	0.024986**	0.0165565	0.0553101***
Croatia	-0.0205905	0.0036091	-0.1567896**	0.0285065**	0.1771606**	0.0423556***	0.0812243	0.023899**	-0.0061941	0.0176031	0.1032633	0.0740097***
Czech Republic	-0.0737932	0.0229173*	-0.319707***	0.0260728**	0.2144998***	0.0166354	0.2279929***	0.0589213***	-0.2608637***	0.0094422	0.1203379*	0.049252***
Egypt	-0.067751	0.0334389***	-0.3953652***	0.0659339***	0.0487806	0.0560151***	-0.0754221	0.024451**	-0.1286584**	0.0298565***	0.0788244	0.0385452***
Estonia	0.0850083	0.0515471***	-0.1465553**	0.0541928***	0.4063422***	0.0587233***	0.2286374***	0.0896241***	-0.1096813*	0.0295842**	0.3923864***	0.0827113***
Finland	-0.0671522	0.0610293***	-0.2461705***	0.084203***	0.3590428***	0.0263235**	0.006869	0.0230461*	-0.199065***	0.0344341***	0.2876281***	0.0559233***
France	-0.1874802***	0.0399311***	-0.349692***	0.0123944	0.056849	-0.0008231	-0.0324788	0.0343538***	-0.1490779**	0.0262528**	0.024655	0.0425827***
Georgia	-0.0767534	0.0155699	-0.2086644***	0.0528175***	-0.0649814	0.0130983	0.0541488	0.0551415***	-0.0755548	0.0325951***	0.125981*	0.0481179***
Germany	-0.2093966***	0.0451385***	-0.0661432	0.0160345	0.2597514***	0.0173319	0.0518648	0.0384002***	-0.114455*	0.0006413	0.2609449***	0.0369182***
Ghana	0.0319814	0.0136343	0.0204871	0.0093484	0.0624782	0.0698***	-0.1274862**	0.0514629***	0.0282263	0.015153	-0.0355615	0.0801946***
Greece	-0.1125964*	0.0518861***	-0.1967391***	0.0998777***	0.0552806	0.0775881^{***}	-0.0104117	0.0287284^{**}	-0.1912838***	0.0464151***	-0.0033027	0.0408398***
Guatemala	-0.0640051	0.015434	-0.0425774	0.0461425***	0.1906475***	0.0745666***	0.0904776	0.0547969***	-0.0962066	0.0310185***	-0.1433001**	0.0505815^{***}
Haiti	-0.2557991***	0.1015501***	-0.0100183	0.0682486***	0.1313632	-0.0007388	-0.0098797	-0.0143693	-0.1109934	0.1113747***	-0.076929	0.0862638***
Hungary	-0.1159988*	0.0088507	-0.2633281***	0.0183785*	0.1418719**	0.0391352***	0.0654182	0.0634185***	-0.2804373***	-0.004131	0.0397294	0.0404046***
India	-0.0120996	0.049938***	-0.260936***	0.1226037***	0.1315813***	0.0889438***	-0.0845434**	0.0336891***	-0.0900938**	0.1260025***	0.1483267***	0.0677791***
Indonesia	-0.1312857**	0.0484438***	-0.2841488***	0.0663709***	-0.0406351	0.0348555**	-0.0210332	0.029715**	-0.1711539***	0.1361623***	-0.0377633	0.0682833***
Iran	0.0869825**	0.01762**	-0.0278313	0.061695***	0.0517178	0.0092478	0.0041946	0.028552***	-0.0545452	0.0263506***	-0.1165703***	0.0149376*
Iraq	-0.016939	0.0343985***	0.1329316**	0.0937101***	0.075414	0.0034652	-0.098038	0.0226777*	0.0789796	0.0887235***	0.0380848	0.0158412
Israel	-0.076412	0.051593***	-0.2180386***	0.0803799***	0.1641781**	0.0345815**	0.1322003**	0.023932*	-0.1066996*	0.0068664	0.0685819	0.0396984***
Italy	-0.1441931**	0.0470584***	-0.1657006***	0.0201035	0.139061**	0.0339073**	-0.1483401**	0.0260066*	-0.1384412**	0.0293311**	0.0750713	0.0788267***
Japan	0.0553995	0.0336891***	-0.2306775***	0.0588944***	0.2601494***	0.0524109***	0.0821208	0.0404433***	-0.2842333***	0.0440092***	0.1582574**	0.0737318***

Table 5 Overview of regression coefficients by country (1/2)

	Patie	ence	Risk t	aking	Altr	uism	Pos. rec	iprocity	Neg. rec	riprocity	Tr	ust
Country	1 if female	Math	1 if female	Math	1 if female	Math	1 if female	Math	1 if female	Math	1 if female	Math
Jordan	0,0614492	0,0101482	-0,0770889	0,0387306***	-0,0797975	0,054247***	0,1457419**	0,081975***	-0,1033555*	0,0152357	0,1856262***	0,0941282***
Kazakhstan	0,011401	0,0303669***	-0,1317032**	0,0323033***	-0,0092222	0,022461**	-0,0197892	0,0164396	-0,1877219***	0,0274418**	-0,0131443	0,0674123***
Kenya	0,1422475**	0,0252239**	-0,1874361***	0,045904***	0,0085789	0,0658181***	-0,0181092	0,0155625	-0,0059587	0,0639582***	0,0556926	0,0738161***
Lithuania	-0,0201335	0,0821724***	-0,2214197***	0,0671633***	0,1980506***	0,0965453***	0,2699402***	0,0486269***	-0,2084082***	0,0626704***	0,0678086	0,086345***
Malawi	-0,0563012	0,0183801*	-0,1430658**	0,004731	-0,0042117	0,0242142**	0,0101236	0,0259762**	-0,0961234	-0,0061861	0,0532909	0,05658***
Mexico	0,0015517	0,0865672***	-0,0885027	0,0846357***	0,0298141	0,073081***	-0,0112133	0,050639***	-0,1354188**	0,0996558***	-0,0177793	0,1079571***
Moldova	0,1205484*	0,0180133	-0,1309714**	0,044381***	-0,0324632	0,046575***	0,0997198	0,0694089***	-0,159837**	0,0716188***	0,0725155	0,0693135***
Morocco	0,1387181**	-0,0047139	-0,3283327***	0,042752***	0,1008126	0,0492965***	0,1478785**	0,0038513	-0,1851201***	0,0412534***	0,0426291	0,064322***
Netherlands	-0,2114069***	0,0608846***	-0,3902652***	0,0078786	0,1858959***	0,0293639**	0,0636275	0,0225686*	-0,3654045***	0,0255372**	0,2058698***	0,048659***
Nicaragua	0,0103718	0,0313173**	-0,093995	0,0827738***	0,1359523**	0,0657992***	-0,0093447	0,03674***	0,0859881	0,0582015***	-0,0293127	0,0529865***
Nigeria	-0,0923839	0,0442985***	-0,3372928***	0,0441426***	0,0441729	0,0627017***	0,0212807	0,0118714	0,0196224	0,1000629***	-0,0078241	0,0820429***
Pakistan	0,0825431	0,0208622	0,0279558	0,0136589	-0,1609902**	0,0677558***	-0,2065138***	0,0669576***	-0,1886998***	0,0619468***	0,0778291	0,1586843***
Peru	-0,1209878*	0,0050357	-0,1208797*	0,0795737***	0,203374***	0,0965355***	0,0808733	0,0844949***	0,0064404	0,0594995***	0,0096994	0,0707496***
Philippines	-0,0631807	0,0174119	-0,1550909**	0,0779581***	0,1111744*	0,0764772***	0,0763946	0,0775667***	-0,0595041	0,0652758***	-0,0708727	0,063932***
Poland	-0,1670311***	0,029339**	-0,2400633***	0,0801372***	0,1077401*	0,0451541***	0,0852058	0,0500252***	-0,2004605***	0,0234388*	0,1170475*	0,0561858***
Portugal	-0,0677641	0,0326803**	-0,1755308***	0,0253352**	0,3045444***	0,0332574**	0,1461417**	0,0556263***	-0,077784	0,0179083	-0,0082098	0,0496542***
Romania	-0,0196026	0,0495054***	-0,2015163***	0,0708069***	0,063427	0,0817562***	0,0644148	0,0675368***	-0,120912*	0,0300314**	-0,0354819	0,0341048**
Russia	0,0072454	0,028699***	-0,2483969***	0,0333892***	0,1695238***	0,0497033***	0,1143875**	0,0290617***	-0,2419042***	0,0191387**	0,2371566***	0,0571936***
Rwanda	-0,0441963	0,0414336***	-0,1633195***	0,0731303***	-0,0052989	0,0554072***	0,0417028	0,0620445***	-0,121828*	0,0511203***	0,0125053	0,0568497***
Saudi Arabia	-0,1111475*	0,0441901***	-0,1115124*	0,0428498***	0,0708901	0,1593992***	0,2682951***	0,1126008***	0,0014041	0,0670541***	0,2501888***	0,1617409***
Serbia	-0,0915233	0,0418959***	-0,2069443***	0,0576508***	0,0407812	0,0616574***	-0,0524365	0,0571795***	-0,2243048***	0,0418786***	0,0433325	0,0543852***
South Africa	-0,0020294	0,0370695***	-0,0722798	0,0891523***	0,066833	0,0644953***	0,108511*	0,0532075***	-0,051359	0,1059396***	-0,0135969	0,0753775***
South Korea	-0,0214318	0,0308745**	-0,326041***	0,0352736***	0,0026896	0,0459622***	0,0897893	0,033577**	-0,0232146	0,0686346***	0,1325389**	0,0375381**
Spain	-0,1506602**	0,038142***	-0,2070446***	0,0486928***	0,1160283*	0,0418223***	0,0610411	0,0272923**	-0,1782703***	0,0064266	0,0301575	0,0313303**
Sri Lanka	0,0842919	0,0493867***	-0,1073176*	0,0395331***	-0,0705862	0,0350554***	-0,0077027	0,0335783***	-0,170302***	0,0404447***	-0,0176552	0,0645103***
Suriname	0,1009581	0,0425991***	-0,1718118*	0,0132084	0,1402139	0,0393543***	0,2011541**	0,0416681***	-0,1026086	0,0350592**	0,0626866	0,0636888***
Sweden	-0,1866676***	0,0212059*	-0,2709519***	0,0556399***	0,3384485***	0,0163867	0,1419395**	0,0507767***	-0,3034698***	0,0285122**	0,2344574***	0,0520129***
Switzerland	-0,2525168***	0,0316741***	-0,2585705***	0,0325988***	0,2332323***	0,0256232**	0,0530464	0,0375121***	-0,2335528***	0,0294303**	0,2228186***	0,0532214***
Tanzania	0,0324672	0,0397254***	0,1002163	0,0231233**	-0,0191725	0,0377934***	-0,0452659	0,0033473	0,0109379	0,0866633***	-0,058688	0,063225***
Thailand	0,0820547	0,00995	-0,1382632**	0,0366912**	0,0794323	0,0759617***	-0,1403346**	0,0406963***	-0,0481549	0,0547658***	0,0038693	0,0868482***
Turkey	-0,2298888***	-0,0010593	-0,1082723*	0,0376504***	0,0422864	0,0753146***	0,0303775	0,0270468**	-0,0570615	0,1147114***	0,014148	0,0676662***
Uganda	-0,0456748	0,0339824***	-0,2785015***	0,0361529***	-0,0749936	0,0478952***	0,1252026**	0,0776982***	-0,1562337**	0,0164525	0,0062961	0,0664097***
Ukraine	-0,1336673*	0,0285978**	-0,2449256***	0,0502228***	0,0906441	0,0376914***	0,0974676	0,0512506***	-0,1793728**	0,019458	0,1895797***	0,0567816***
U. Arab Emirates	-0,0959524	0,0013054	-0,1470381**	0,015919	-0,0151004	0,043484***	0,0438037	0,0183501*	-0,0464692	0,0450252***	0,0094775	0,0718027***
United Kingdom	-0,2106066***	0,0409777***	-0,3245542***	0,0147661	0,1881033***	0,0145609	0,0581698	0,0149369	-0,4670872***	0,0034451	0,2397229***	0,0490612***
United States	-0,0188653	0,014215	-0,3798816***	0,0304098**	0,2111237***	0,026259**	0,1708226***	0,0368875***	-0,3289143***	0,0014998	0,4176902***	0,0368001***
Venezuela	-0,0529202	0,0316004**	-0,1126484*	0,0452682***	0,1864869***	0,0874892***	-0,0205905	0,0717569***	-0,1252945*	-0,0091927	-0,009619	0,0435255***
Vietnam	0,0609279	0,0513646***	-0,0463444	0,1523597***	-0,056585	0,0638915***	0,0765442	0,0684023***	-0,007179	0,1778587***	0,1206862*	0,1294219***
Zimbabwe	-0,1624386**	0,0384541***	-0,3425037***	0,0663927***	-0,0639967	0,0421814***	0,0085277	0,0488651***	-0,2628687***	-0,020685*	0,0242194	0,0456594***

Table 6 Overview of regression coefficients by country (2/2)

F LANGUAGE AND PREFERENCE VARIATION WITHIN COUNTRIES

						Dependent	t variable:					
	Pati	ence	Risk t	aking	Pos. rec	iprocity	Neg. red	ciprocity	Altr	uism	Tr	ust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1 if weak FTR	0.20**	0.16***	0.084	0.063	0.55***	0.31***	0.23**	0.24***	0.43***	0.43***	0.41***	0.44***
	(0.09)	(0.04)	(0.05)	(0.07)	(0.12)	(0.07)	(0.10)	(0.06)	(0.12)	(0.12)	(0.08)	(0.07)
Pronoun drop not allowed	0.17*	0.12***	0.083**	0.11***	0.35***	0.21***	0.071	0.13***	0.24***	0.22***	0.016	-0.016
	(0.09)	(0.03)	(0.03)	(0.04)	(0.08)	(0.05)	(0.07)	(0.04)	(0.05)	(0.06)	(0.04)	(0.03)
Age	0.78***	0.85***	-0.18	-0.064	1.13***	1.20***	-0.52**	-0.54***	-0.082	-0.12	0.24	0.15
	(0.28)	(0.31)	(0.28)	(0.28)	(0.31)	(0.32)	(0.19)	(0.18)	(0.18)	(0.17)	(0.15)	(0.14)
Age squared	-1.56***	-1.65***	-1.13***	-1.21***	-1.27***	-1.38***	-0.36	-0.33	0.062	0.045	0.17	0.21
	(0.31)	(0.34)	(0.29)	(0.30)	(0.33)	(0.34)	(0.22)	(0.21)	(0.16)	(0.16)	(0.16)	(0.15)
1 if female	-0.067***	-0.064***	-0.19***	-0.19***	0.072***	0.071***	-0.13***	-0.14***	0.13***	0.13***	0.10***	0.085***
	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
Subj. math skills	0.027***	0.027***	0.043***	0.040***	0.039***	0.038***	0.034***	0.028***	0.043***	0.039***	0.058***	0.053***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log [Household income p/c]	0.056***	0.059***	0.069***	0.063***	0.029***	0.043***	0.017*	0.020*	0.034***	0.039***	-0.013**	-0.0049
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	-0.53***	-0.62***	-0.048	0.0034	-1.23***	-1.51***	0.19*	-0.41***	-0.48***	-0.48***	-0.52***	-1.03***
	(0.10)	(0.12)	(0.08)	(0.12)	(0.07)	(0.08)	(0.10)	(0.13)	(0.09)	(0.11)	(0.06)	(0.08)
Country FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Subnational region FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Religion FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	53054	46327	53055	46356	53299	46549	52309	45768	53119	46398	52548	45916
R ²	0.188	0.236	0.184	0.238	0.113	0.202	0.121	0.188	0.124	0.178	0.119	0.165

Table 7 Individual-level preferences and language

Notes. OLS estimates, standard errors (clustered at interview language level) in parentheses. The analyses exploit variation in interview language (and associated language structures) within countries or subnational regions. Coefficients are in terms of units of standard deviations of the respective preference (relative to the individual world mean). Age is divided by 100. * p < 0.10, ** p < 0.05, *** p < 0.01.

G Additional Results on Individual-Level Outcomes

GA. Robustness Checks: All Preferences Simultaneously

Including all preferences simultaneously is not our preferred approach because it introduces problems of multicollinearity. Still, to check robustness, Tables 8 and 9 pesent the results of the individual-level outcomes regressions with all preferences as explanatory variables.

	-	Accumulati	ion decision	ß	Depende	ent variable:	Risky c	hoices		
	Saved 1	ast year	Educati	on level	Own l	business	Plan to sta	rt business	Smoking	intensity
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)
Patience	0.026*** (0.01)	0.021^{***} (0.01)	0.046*** (0.01)	0.026*** (0.00)	0.0034 (0.00)	0.0022 (0.00)	0.0062*** (0.00)	0.0052** (0.00)	-0.0037 (0.01)	-0.0070 (0.01)
Risk taking	0.030*** (0.01)	0.014^{**} (0.01)	0.068*** (0.01)	0.021^{***} (0.00)	0.026*** (0.00)	0.023*** (0.00)	0.019^{***} (0.00)	0.016*** (0.00)	0.051^{**} (0.02)	0.030** (0.01)
Positive reciprocity	0.013 (0.01)	0.0097 (0.01)	0.035*** (0.00)	0.024^{***} (0.00)	0.012*** (0.00)	0.0083*** (0.00)	0.0065** (0.00)	0.0073*** (0.00)	0.0026 (0.01)	-0.0024 (0.01)
Negative reciprocity	0.021^{**} (0.01)	0.011 (0.01)	0.015*** (0.00)	-0.0060 (0.00)	-0.0019 (0.00)	-0.0019 (0.00)	0.0038 (0.00)	0.0019 (0.00)	0.038*** (0.01)	0.033*** (0.01)
Altruism	0.017^{**} (0.01)	0.018^{***} (0.00)	0.028*** (0.00)	0.025*** (0.00)	0.0041^{*} (0.00)	0.0068*** (0.00)	0.011^{***} (0.00)	0.011*** (0.00)	-0.020^{**} (0.01)	-0.0055 (0.01)
Trust	-0.0052 (0.01)	-0.0024 (0.00)	-0.016*** (0.00)	-0.016*** (0.00)	-0.0021 (0.00)	-0.0018 (0.00)	0.00057 (0.00)	0.0020 (0.00)	-0.030^{***} (0.01)	-0.011 (0.01)
Country FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Region FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Additional controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations R^2	14436 0.082	$13835 \\ 0.187$	76442 0.225	66366 0.365	70149 0.065	60304 0.138	54821 0.111	49143 0.170	14452 0.033	13847 0.233
OLS estimates, standa year is a binary indica see Appendix K). Self- (never, occasionally fre indicators for relisionis	rd errors (tor, while ε employme squently)	clustered at education le nt and plau Additional (See Appen	country levents is meased in the second self-entrols in the self-entrols in the self-entrols in the second	/el) in parer ured in thr mployment flude age, ag dditional in	theses. For ee categori are binary ge squared	r the purpose ies (roughly ç while smo , gender, sul about the v	es of this tabl elementary, king intensit jective math ariables.* n <	e, age is divi secondary, a ry is measury skills, log h	ded by 100. Ind tertiary ed in three ousehold in	Saved last education, categories (come, and

Table 8 Patience and accumulation decisions, risk preferences and risky choices: All preferences

							Dependei	nt variable:						
	Doná	ated	Volunt	teered	Hel _]	ped	Sent mone	ey / goods	Voiced (opinion	Have frien	ds / relatives	In	a
	mor	1ey	tin	1e	strar	1ger	to other i	ndividual	to off	ficial	I can o	count on	relatio	nship
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)	(13)	(14)
Altruism	0.064*** (0.01)	0.058*** (0.01)	0.035***	0.034*** (0.00)	0.053***	0.050***	0.034***	0.031*** (0.00)	0.023*** (0.00)	0.020*** (0.00)	0.018*** (0.00)	0.016*** (0.00)	-0.0015	0.0029
Positive reciprocity	0.000092	0.0038	0.0046	0.0013	0.037***	0.034***	0.018***	0.019***	-0.00044	-0.0024	0.017***	0.016***	0.012***	0.0078***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Negative reciprocity	-0.0087***	-0.0049*	-0.0047	-0.0041	-0.00065	-0.0052	0.0046	0.00076	0.016***	0.013***	0.0043	-0.0015	-0.010***	-0.00054
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Trust	0.0085**	0.0052	0.0076**	0.010***	-0.0082**	-0.0069**	0.0012	0.0016	0.0030	0.0021	0.00064	0.0020	0.010***	0.0022
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Patience	0.012**	0.0089**	0.016***	0.012***	0.0086**	0.0075**	0.015***	0.011***	0.010^{***}	0.0077**	0.0049*	0.0011	0.0047	0.0070***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Risk taking	0.0065*	0.0096***	0.013***	0.013***	0.027***	0.018***	0.013***	0.0092***	0.021***	0.019***	0.021***	0.012***	-0.015***	0.00019
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Country FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Region FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Additional controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations R^2	57091	51839	57080	51835	54887	51639	55184	52007	54846	51598	64690	57486	76360	66287
	0.179	0.242	0.087	0.140	0.087	0.150	0.113	0.180	0.050	0.107	0.094	0.170	0.053	0.237
OLS estimates, standa secondary, and tertiary frequently). Additiona information about the	urd errors (cl ¹ / education, s ll controls inv variables.* p	ustered at co see Appendiz clude age, $a < 0.10, ** p$	buntry level k K). Self-er lge squared < 0.05, ***) in parent nployment l, gender, s $p < 0.01$.	heses. Saved and planne ubjective m	d last year i d self-emple ath skills, 1	s a binary ii oyment are og househc	ndicator, wh binary, whi old income,	nile educatic le smoking i and indica	n level is m intensity is tors for rel	neasured in measured ir igious affilia	three categori 1 three categor ation. See App	es (roughly ies (never, o endix K for	elementary, ccasionally, additional

Table 9 Patience and accumulation decisions, risk preferences and risky choices: All preferences

GB. Distributions of Coefficients Across Countries

This section shows that the conditional correlations on the relationships between preferences and individual-level behaviors that we reported on the global level in the main text, are not due to a few outlier countries only. Instead, the results suggest that our preference measures predict behavior across a broad set of countries. To show this, we regress the behaviors discussed in Section **??** on the respective preference, separately for each country, and then plot the distribution and statistical significance of the resulting coefficients. For instance, the top left panel in Figure 7 shows that the positive correlation between patience and savings holds in virtually all countries in our sample.

While Figure 7 reports the results for patience and risktaking, Figure 8 visualizes the relationships between altruism and behaviors. Finally, Figure 9 presents the correlations between positive and negative reciprocity and the behaviors discussed in Section **??** of the main text.



Figure 7 Correlations separately by country. Each panel plots the distribution of correlations across countries. That is, for each country, we regress the respective outcome on a preference and plot the resulting coefficients as well as their significance level. In order to make countries comparable, each preference was standardized (z-scores) within each country before computing the coefficients. Green dots indicate countries in which the correlation is not statistically different from zero at the 10% level, while red / blue / pink dots denote countries in which the correlation is significant at the 1% / 5% / 10% level, respectively. Positive coefficients imply that a higher preference measure is related to a higher outcome measure.



Figure 8 Correlations separately by country. Each panel plots the distribution of correlations across countries. That is, for each country, we regress the respective outcome on a preference and plot the resulting coefficients as well as their significance level. In order to make countries comparable, each preference was standardized (z-scores) within each country before computing the coefficients. Green dots indicate countries in which the correlation is not statistically different from zero at the 10% level, while red / blue / pink dots denote countries in which the correlation is significant at the 1% / 5% / 10% level, respectively. Positive coefficients imply that a higher preference measure is related to a higher outcome measure.



Figure 9 Correlations separately by country. Each panel plots the distribution of correlations across countries. That is, for each country, we regress the respective outcome on a preference and plot the resulting coefficients as well as their significance level. In order to make countries comparable, each preference was standardized (z-scores) within each country before computing the coefficients. Green dots indicate countries in which the correlation is not statistically different from zero at the 10% level, while red / blue / pink dots denote countries in which the correlation is significant at the 1% / 5% / 10% level, respectively. Positive coefficients imply that a higher preference measure is related to a higher outcome measure.

H Additional Results on Cross-Country Outcomes

				De	ependent va	riable:				
			Entrep	oreneurship				Social o	utcomes	
	Patent a	pplic. p/c	Scientifi	c articles p/c	TF	P	Volunt.	& donat.	Armed	conflicts
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Risk taking	-0.11 (0.54)	-1.08 (0.71)	0.10** (0.05)	-0.12*** (0.04)	0.20** (0.10)	0.055 (0.11)	1.74** (0.77)	0.86 (0.55)	-0.71 (0.49)	-0.92 (0.57)
Prosociality	0.81* (0.44)	0.68 (0.41)	0.051 (0.05)	0.0079 (0.04)	-0.00031 (0.07)	-0.034 (0.07)	1.26** (0.53)	0.85* (0.48)	0.078 (0.39)	0.039 (0.41)
Negative reciprocity	1.35* (0.79)	1.12 (0.74)	-0.035 (0.08)	-0.082 (0.05)	0.079 (0.11)	0.055 (0.09)	0.50 (0.93)	0.099 (0.85)	1.39*** (0.43)	1.33*** (0.43)
Patience		1.57*** (0.50)		0.41*** (0.05)		0.25*** (0.07)		1.57** (0.70)		0.38 (0.43)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations R ²	61 0.70	61 0.74	67 0.45	67 0.78	59 0.49	59 0.57	32 0.56	32 0.65	73 0.35	73 0.35

Table 10 Country-level outcomes and preferences

OLS estimates, robust standard errors in parentheses. The dependent variables in columns (1)–(2) and (3)–(4) are the logs of the number of patent applications p/c and the number of scientific articles p/c, respectively. In columns (7)–(8), the dependent variable is volunteering and donation as a fraction of GDP. Frequency of conflicts is measured by the log of conflicts according to PRIO, in the Quality of Government dataset. Prosociality is the first principal component of altruism, positive reciprocity, and trust. Controls include distance to equator, average temperature, average precipitation, the share of the population living in (sub-)tropical zones, terrain ruggedness, average distance to nearest waterway, and an island dummy. See Online Appendix K for additional information about the variables. * p < 0.10, ** p < 0.05, *** p < 0.01.

I GPS Preference Measures and Other Survey Variables



Figure 10 Patience and Hofstede long-term orientation



Figure 11 Risk taking and Hofstede uncertainty avoidance



Figure 12 Trust and WVS trust



Figure 13 Risk taking and WVS risk taking

Table 11	Economic	DEVELOPMENT	AND	PREFERENCES:	Comparison	BETWEEN	GPS and	OTHER
				VARIABLES				

		Dej	pendent v	ariable: L	og [GDP]	p/c]	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Patience	2.63*** (0.26)				2.21*** (0.31)	2.24*** (0.40)	2.84*** (0.35)
Hofstede long-term orientation		0.025*** (0.01)			0.0091 (0.01)		0.00065 (0.01)
Hofstede uncertainty avoidance			0.0096 (0.01)				0.043*** (0.01)
WVS Trust				4.82*** (1.09)		0.81 (1.65)	1.77 (1.49)
Constant	8.31*** (0.14)	7.71*** (0.29)	7.96*** (0.53)	7.46*** (0.34)	8.16*** (0.31)	8.32*** (0.49)	5.10*** (1.09)
Observations R^2	76 0.39	86 0.14	102 0.02	84 0.18	56 0.43	55 0.42	48 0.62

OLS estimates, robust standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

J RESULTS ON CANDIDATE PREFERENCE PROXIES IN THE WVS

			le:					
	WVS Long	g Term Orientation	WVS Valu	e of stimulation	WVS al	truism	WVS	trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age	0.35	-0.11	-2.71***	-2.28***	-0.47	-0.15	0.71***	0.28
	(0.26)	(0.17)	(0.31)	(0.27)	(0.38)	(0.25)	(0.26)	(0.17)
Age squared	0.059	0.42***	1.14***	0.98***	0.21	0.33	-0.35*	-0.19
	(0.22)	(0.14)	(0.27)	(0.23)	(0.34)	(0.25)	(0.20)	(0.14)
Female	0.023**	0.028***	-0.25***	-0.23***	-0.0091	-0.011	-0.021***	-0.021***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.01)
Constant	-0.21***	-0.36***	1.14***	1.19***	0.17**	0.22***	-0.26***	-0.21***
	(0.06)	(0.05)	(0.07)	(0.08)	(0.08)	(0.06)	(0.07)	(0.05)
Country FE	No	Yes	No	Yes	No	Yes	No	Yes
Observations	323270	323270	154729	154729	80881	80881	308162	308162
R ²	0.005	0.071	0.082	0.156	0.002	0.130	0.003	0.098

Table 12 WVS preference proxies and individual-level determinants

OLS estimates, robust standard errors in parentheses. Coefficients are in terms of units of standard deviations of the respective preference (relative to the individual world mean). For the purposes of this table, age is divided by 100. * p < 0.10, ** p < 0.05, *** p < 0.01.

	Saved 1	ast vear	Depender Educ	nt variable ation	: Self en	nploved
	(1)	(2)	(3)	(4)	(5)	(6)
WVS Long Term Orientation	-0.0033* (0.00)	0.0016 (0.00)	-0.19*** (0.02)	-0.13*** (0.02)		
WVS Value of Stimulation					0.0043*** (0.00)	0.0045*** (0.00)
Age		-0.42*** (0.11)		-0.46 (0.73)		1.42*** (0.18)
Age squared		0.33*** (0.09)		-2.16*** (0.58)		-1.25*** (0.15)
Female		-0.020*** (0.00)		-0.19*** (0.03)		-0.072*** (0.01)
Constant	0.42*** (0.00)	0.100** (0.04)	5.18*** (0.01)	3.83*** (0.23)	0.11*** (0.00)	-0.20*** (0.04)
Country FE	Yes	No	Yes	No	Yes	No
Region FE	No	Yes	No	Yes	No	Yes
Additional Controls	No	Yes	No	Yes	No	Yes
Observations R^2	277317 0.082	220856 0.170	296130 0.107	230555 0.271	151767 0.120	131698 0.182

Table 13 WVS preference proxies and individual-level outcomes

OLS estimates, robust standard errors in parentheses. Saved last year is a binary indicator, while education level is measured in eight categories. Self-employment is binary. For the purposes of this table, age is divided by 100. Additional controls include log of categorical income variable, and indicators for religious affiliation. See Appendix K for additional information about the variables. * p < 0.10, *** p < 0.05, **** p < 0.01.

K Description and Data Sources of Outcome Variables

KA. Individual-Level Variables

Donated money. Binary variable capturing whether the respondent donated money in the previous month. Included in Gallup's background data.

Education level. Included in Gallup's background data. Level 1: Completed elementary education or less (up to 8 years of basic education). Level 2: Secondary - 3 year tertiary education and some education beyond secondary education (9-15 years of education). Level 3: Completed four years of education beyond high school and / or received a 4-year college degree.

Have friends. Binary variable capturing whether the respondent has relatives or friends they can count on to help them whenever needed. Included in Gallup's background data.

Helped stranger. Binary variable capturing whether the respondent helped a stranger who needed help in the previous month. Included in Gallup's background data.

Household income per capita. Included in Gallup's background data. To calculate income, respondents are asked to report their household income in local currency. Those respondents who have difficulty answering the question are presented a set of ranges in local currency and are asked which group they fall into. Income variables are created by converting local currency to International Dollars (ID) using purchasing power parity (PPP) ratios. Log household income is computed as log (1+ household income).

In a relationship. Binary variable coded as zero if the respondents is single, separated, divorced, or widowed, and as 1 if respondent is married or has a domestic partner. Included in Gallup's background data.

Own business. Binary variable capturing whether the respondent is self-employed. Included in Gallup's background data.

Plan to start business. Binary variable capturing whether the respondent is planning to start their own business (only asked of those who are not self-employed). Included in Gallup's background data.

Saved last year. Binary variable capturing whether the respondent saved any money in the previous year. Included in Gallup's background data.

Sent help to individual. Binary variable capturing whether the respondent sent help (money or goods) to another individual in the previous year. Included in Gallup's background data.

Smoking intensity. Variable capturing how frequently a respondent smokes (0=never, 1=oc-casionally, 2=frequently). Included in Gallup's background data.

Subjective law and order index. Included in Gallup's Background data (0-1). Derived from responses to three questions: "In the city or area where you live, do you have confidence in the local police force?"; "Do you feel safe walking alone at night in the city or area where you live?"; "Within the last 12 months, have you had money or property stolen from you or another household member?".

Subjective physical health index. Included in Gallup's Background data (0-1). Derived from responses to five questions: "Do you have any health problems that prevent you from doing any of the things people your age normally can do?"; "Now, please think about yesterday, from the morning until the end of the day. Think about where you were, what you were doing, who you were with, and how you felt. Did you feel well-rested yesterday?"; "Did you experience the following feelings during a lot of the day yesterday? How about physical pain?"; "Did you experience the following feelings during a lot of the day yesterday? How about worry?"; "Did you experience the following feelings during a lot of the day yesterday? How about sadness?".

Subjective self-assessment of math skills. How well do the following statements describe you as a person? Please indicate your answer on a scale from 0 to 10. A 0 means "does not describe me at all" and a 10 means "describes me perfectly". You can also use any numbers between 0 and 10 to indicate where you fall on the scale, like 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. I am good at math.

Voiced opinion to official. Binary variable capturing whether the respondent voiced their opinion to a public official in the previous month. Included in Gallup's background data.

Volunteered time. Binary variable capturing whether the respondent volunteered time to an organization in the previous month. Included in Gallup's background data.

KB. Country-Level Variables

Number of patent applications Number of patent applications per capita, according to the World Bank Development Indicators, averaged 2003–2012.

Scientific Articles The mean, over the period 1981-2000, of the annual number of scientic articles per capita, calculated as the total number of scientific and technical articles published in a given year divided by the total population in that year.

Total factor productivity TFP average 2003-2012, Penn World tables.

Conflicts The number of conflicts according to PRIO are taken from the Quality of Government dataset.

Distance to equator, longitude. Source: the CEPII geo database.

GDP per capita. Average annual GDP per capita over the period 2003 – 2012, in 2005US\$. Source: World Bank Development Indicators.

Temperature. Average monthly temperature of a country in degree Celsius, 1961-1990, taken from Ashraf and Galor (2013). Data originally based on geospatial average monthly temperature data for this period reported by the G-ECON project (Nordhaus, 2006).

Terrain ruggedness. Taken from Nunn and Puga (2012).

Mean distance from nearest waterway. Distance from GIS grid cell to nearest icefree coastline or sea-navigable river, averaged across cells. Taken from Ashraf and Galor (2013).

Percentage in (sub-)tropical zones. ercentage of area within a country which forms part of each of the tropical or sub-tropical climatic zones. Data taken from John Luke Gallup, http://www.pdx.edu/econ/jlgallup/country-geodata.

Precipitation. Average monthly precipitation of a country in mm per month, 1961-1990, taken from Ashraf and Galor (2013). Data originally based on geospatial average monthly precipitation data for this period reported by the G-ECON project (Nordhaus, 2006).

Volunteering and donation as fraction of GDP. Dollar value of volunteering and giving as a share of GDP by country, including gifts to religious worship organizations where available, average over the period 1995-2002. Source: Salamon (2004).

Geographic and biological conditions. Taken from Spolaore and Wacziarg (2013), originally based on Olsson and Hibbs (2005).

Crop suitability of land. Taken from Galor and Özak (2016).

Family ties. Constructed from WVS following Alesina and Giuliano (2013).

Future time reference. Classification adapted from Chen (2013) with minor additions and changes. First, we set Persian to missing after corresponding with him (he originally classified Persian as strong FTR, which is open to discussion). Second, we managed to classify Moroccan Arabic (strong), Fula (strong), and Khmer (weak).

Pronoun drop. Classification based on World Atlas of Languages (WALS).

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