

Online Supplement

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Sampling and Demographics

Table S1. Sampling details.

| Country | Sample | English | Payment | Contact |
|--------------------|---------------|----------------|----------------|--|
| Australia | student | Y | credit | ilan.dar-nimrod@sydney.edu.au |
| China | community | N | money | emma.buchtel@gmail.com |
| Czech Rep. | student | N | credit | eva.klocova@gmail.com |
| Finland | mixed | N | none | tapani.riekki@helsinki.fi annika.svedholm@helsinki.fi |
| Hong Kong | student | N | lottery | emma.buchtel@gmail.com |
| India | community | Y | money | will.gervais@uky.edu |
| Mauritius | community | N | none | xygalatas@uconn.com |
| Netherlands | student | N | credit | M.vanElk@uva.nl |
| NZ | student | Y | lottery | joseph.bulbulia@gmail.com |
| Singapore | student | Y | credit | jonathanramsay@unisim.edu.sg |
| UAE | student | Y | credit | maveyard@aus.edu |
| UK | student | Y | lottery | Ryan.McKay@rhul.ac.uk |
| USA | student | Y | credit | will.gervais@uky.edu |

Table S2. General demographics

| Country (<i>N</i>) | Age <i>M</i> [<i>SD</i>] | Female % | Belief <i>M</i> [<i>SD</i>] | Educ. <i>Mdn</i> | SSES <i>M</i> [<i>SD</i>] | Cons. Pol. <i>M</i> [<i>SD</i>] |
|-----------------------------|-------------------------------|-------------|----------------------------------|---------------------|--------------------------------|--------------------------------------|
| Australia (144) | 20.0 [5.12] | 70 | 53.9 [38.5] | Some univ | 6.60 [1.48] | 3.53 [1.41] |
| China (207) | 29.8 [5.95] | 63 | 28.7 [35.7] | University | 6.84 [1.57] | 3.38 [1.43] |
| Czech Rep. (188) | 22.0 [2.08] | 68 | 47.2 [39.8] | -- | 3.53 [1.15] | 4.47 [1.15] |
| Finland (1003) | 28.1 [8.22] | 73 | 31.3 [35.3] | University | 5.99 [1.59] | -- |
| Hong Kong (129) | 21.3 [3.39] | 80 | 63.2 [36.1] | Some univ | 4.90 [1.66] | 2.89 [1.08] |
| India (225) | 32.3 [9.44] | 65 | 85.0 [26.9] | University | 4.93 [1.51] | 3.34 [1.41] |
| Mauritius (161) | 21.7 [1.33] | 47 | 76.5 [39.2] | Some univ | 4.07 [4.06] | 2.86 [1.42] |
| Netherlands (212) | 19.5 [2.14] | 75 | 21.2 [29.9] | University | 6.78 [1.45] | 4.14 [2.75] |
| New Zealand (163) | 23.1 [7.94] | 67 | 42.0 [39.5] | Some univ | 6.01 [1.60] | 2.69 [1.60] |
| Singapore (161) | 20.8 [1.69] | 68 | 69.8 [30.3] | HS* | 5.53 [1.48] | 3.57 [1.30] |
| UAE (147) | 19.9 [1.56] | 60 | 94.3 [18.9] | HS* | 6.80 [1.34] | -- |
| UK (149) | 25.1 [9.29] | 67 | 35.1 [37.1] | Some univ | 6.29 [1.78] | 3.24 [1.23] |
| USA (596) | 19.4 [3.06] | 74 | 83.4 [29.2] | Some univ | -- | -- |
| Aggregate (3485) | 24.1 [7.37] | 69 | 52.4 [41.5] | Some univ | -- | -- |

*Median education was listed as “Completed High School” despite the fact that all students were at university (“Some University”). See Methods Packet in this document for disambiguation of items and scoring. SSES = subjective socioeconomic status. Cons. Pol = political attitudes, from 1 (Very liberal) to 7 (very conservative).

Table S3. Religious demographics (%)

| Country | Christian | Hindu | Buddhist | Muslim | None | Atheist | Agnostic | Other |
|------------------|------------------|--------------|-----------------|---------------|-------------|----------------|-----------------|--------------|
| Australia | 41 | 2 | 4 | 4 | 14 | 15 | 15 | 5 |
| China | 4 | -- | 18 | -- | -- | | 75* | 3 |
| Czech | 36 | 4 | .5 | 1 | 3 | 31 | 18 | 6.5 |
| Finland | 42 | | | .4 | 25 | 18 | 11 | 3.6 |
| HK | 33 | -- | 3 | -- | -- | | 60* | 4 |
| India | 17 | 69 | .2 | 10 | .2 | 1 | 1 | 1.6 |
| Mauritius | 25 | 43 | 2 | 22 | 3 | 4 | .6 | .4 |
| Neth. | | | | | | | | |
| NZ | 22 | .6 | 3 | 1 | 71 | 2 | 0 | .4 |
| Singapore | 28 | 7 | 30 | 5 | | 30* | | |
| UAE | 4 | 4 | 1 | 84 | | .6* | | 6.4 |
| UK | 20 | 2 | 0 | 6 | 27 | 22 | 15 | 8 |
| USA | -- | -- | -- | -- | -- | -- | -- | -- |

* Notes: China and Hong Kong used slightly different religious ID options. Among other things, Atheist/agnostic was an option, rather than atheist or agnostic as separate choices. Dashes (--) indicate an option was not provided. Singapore used a “freethinker” category instead of none, atheist, and agnostic. UAE used “Non-Religious Other philosophy not listed here” category. Data taken from final data set, after dropping inattentive participants. Specific denominational demographics for the Netherlands are available in full posted dataset. Please contact Michiel van Elk for coding information.

Additional modeling details

Data exploration

All analyses were conducted in R¹⁻⁴.

Evidence of marked country-level heterogeneity both in CRT performance and in religious beliefs suggests the need to appropriately handle country dependencies.

We modelled the expected predicted effect of CRT on religious belief using a Bayesian multilevel model in R using McElreath's Rethinking package⁵. Bayesian regression yields results with transparent and intuitive probabilistic interpretations: the posterior distributions that are generated are probabilistic distributions for modelled associations, which are conditional on the data, model, and priors. Priors for the effects modelled as fixed in the current study weakly regularizing, with a mean of zero and standard deviation of 1. Varying slopes and intercepts used adaptively regularizing priors⁵. The full model code is available at <https://osf.io/v53c4/>

Baseline Methods

Here is the baseline set of methods. Some countries tweaked elements of this (e.g., used different religious categories, measured political attitudes differently). These differences are noted in their data, translated methods, and in the preceding data summaries.

Methods

Most data (all except USA) were drawn from a larger project investigating moral attitudes towards atheists. Overall methods were straightforward: participants answered one representativeness heuristic question, three other logic puzzles (the CRT), one item included to ensure people are paying attention (e.g., Oppenheimer, Meyvis, & Davidenko, 2009), and basic demographics.

I. Representativeness Heuristic task.

Participants began with a single representativeness heuristic task with a description of an unambiguously immoral character. Between subjects, we manipulated the contents of Option #2:

When a man was young, he began inflicting harm on animals. It started with just pulling the wings off flies, but eventually progressed to torturing stray cats and other animals in his neighborhood.

As an adult, the man found that he did not get much thrill from harming animals, so he began hurting people instead. He has killed 5 homeless people that he abducted from poor neighborhoods in his home city. Their dismembered bodies are currently buried in his basement.

Which is more probable?

1. The man is a teacher
2. The man is a teacher and [does not believe in any gods. / is a religious believer.]

II. Attention Check.

Here is a different type of question. SKIP THE NEXT QUESTION. It is only included to ensure that you are paying attention and reading directions. Do not leave an answer for the question about US presidents.

Who is the current President of the United States of America?

- a) Barack Obama
- b) Mitt Romney
- c) Steve Perry

d) George Washington

We dropped participants who actually answered this question.

III. CRT Items

| |
|--|
| A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost? ____cents |
| If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets? _____minutes |
| In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? ____days |

IV. Suspicion check

What do you think this study is mainly about so far?

- a) Stereotyping and prejudice
- b) Logic and reasoning
- c) Language fluency
- d) Emotion perception
- e) Memory

V. Demographics

1. How old are you? _____
2. What is your gender?
 - a. Male
 - b. Female
 - c. Other
3. What is your religious affiliation?
 - a. Christian (Catholic)

- b. Christian (Baptist)
 - c. Christian (Other)
 - d. Hindu
 - e. Buddhist
 - f. Muslim
 - g. Jewish
 - h. Sikh
 - i. None
 - j. Atheist
 - k. Agnostic
 - l. Other (Please specify)
4. How strongly do you believe in God or gods (from 0-100)? To clarify, if you are certain that God (or gods) does not exist, please put “0” and if you are certain that God (or gods) does exist, then put “100.” _____
5. How would you describe your race/ethnicity?
- a. White/Caucasian
 - b. Hispanic/Latino
 - c. Black/African American
 - d. American Indian/Alaskan Native
 - e. Asian
 - f. Native Hawaiian/Pacific Islander
 - g. Mixed
 - h. Other: _____
6. We are interested in your political beliefs. Would you consider yourself more liberal or conservative? Select an option below:
- a. Very liberal
 - b. Liberal
 - c. Slightly liberal
 - d. Moderate
 - e. Slightly conservative
 - f. Conservative
 - g. Very conservative
7. We are interested in how you perceive your life. Think of a ladder representing where people stand in [insert country here]. At the top of the ladder are the people who are the best off—those who have the most money, the most education, and the most respected jobs. At the bottom are the people who are the worst off—who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the

lower you are, the closer you are to the people at the very bottom. Imagine this rating scale represents the ladder. Where would you place yourself, relative to other people in [insert country here]?

- a. Rating scale from 0 (Bottom) to 10 (Top)

8. Location: City _____ State/Province _____

9. “What is the highest degree of education you have completed?”

- a. Some high school
- b. Completed high school or equivalent
- c. Some university/college
- d. Completed university/college
- e. Some postgraduate work
- f. Completed a postgraduate degree

Access to materials and data

All materials and methods (including translated materials for some countries), as well as all raw data, is available at the following link:

<https://osf.io/f0upy/>

Our initial study registration can be found here:

<https://osf.io/f6tcr/>

Note: this was the first project I tried to preregister. I didn't realize that registration was an additional step after merely uploading stuff to OSF. Please check document upload dates in the registration. They can confirm that our methods and hypotheses stayed the same over the 2+ years we ran the project. I just was a dunce who didn't know to click "register" to lock everything in. But, our methods were locked in before any of us started collecting data. –WG

Supplement References

- 1 McElreath, R. *rethinking: Statistical Rethinking* book package. R package version 1.58. ((2015)).
- 2 Wickham, H. *tidyr: Easily Tidy Data with `spread()` and `gather()` Functions*. R package version 0.4.1. (2016).
- 3 Wickham, H. & Francois, R. *dplyr: A Grammar of Data Manipulation*. R package version 0.4.3. (2015).
- 4 R Core Team. *R: A language and environment for statistical computing.* , <http://www.R-project.org/>. (2013).
- 5 McElreath, R. *Statistical Rethinking: A Bayesian Course with Examples in R and Stan*. Vol. 122 (CRC Press, 2016).