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# Trust in scientists and their role in society across 68 countries

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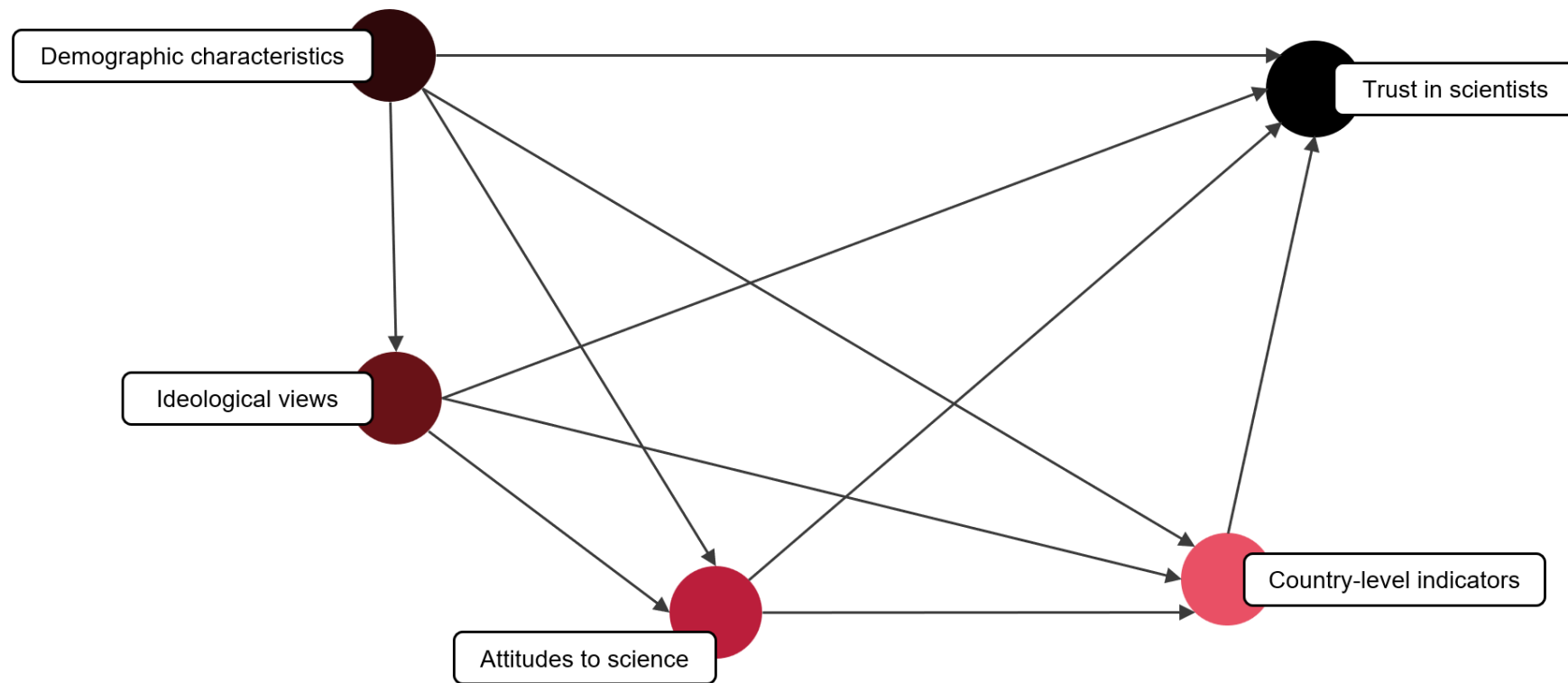
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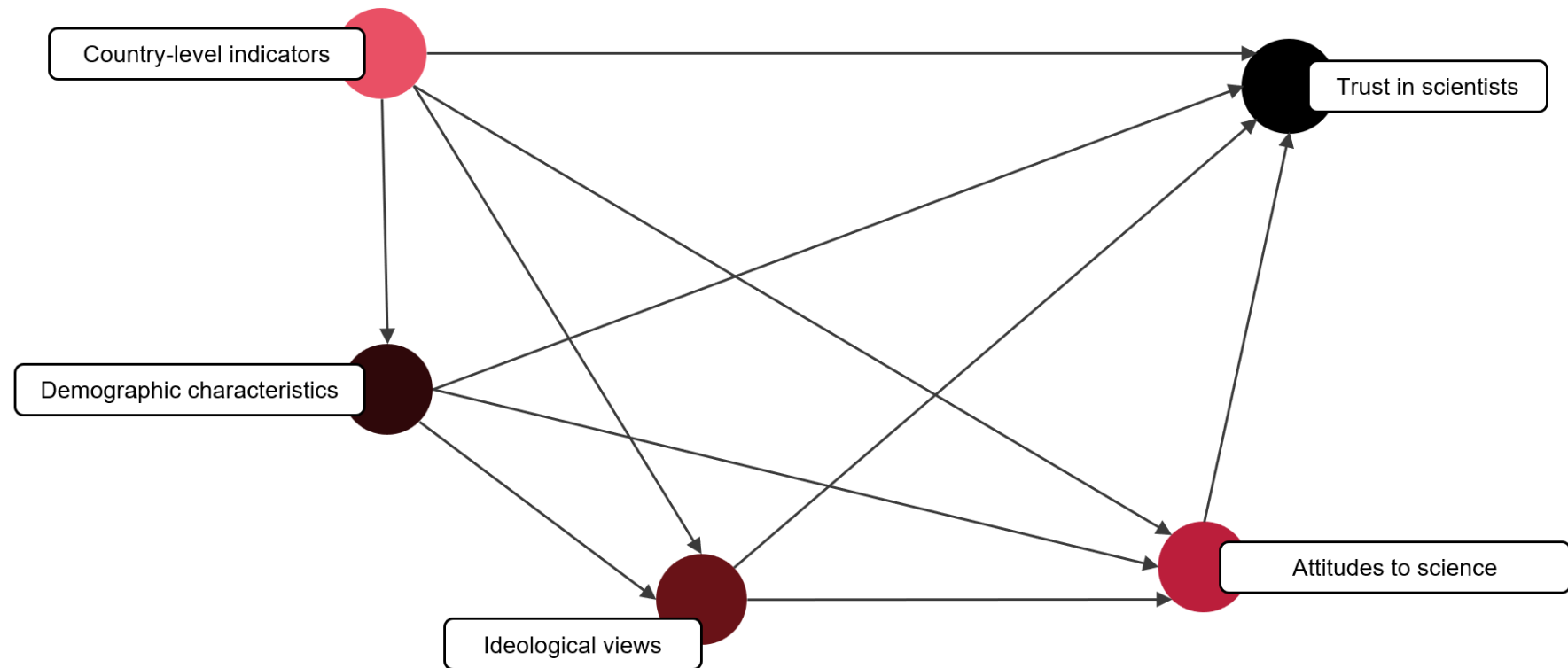
## Results

There are distinct causal pathways that could be hypothesized and tested. We focus on this particular causal model depicted in our directed acyclic graph (DAG; fig. S1a) which is in line with previous global studies on trust<sup>6,90,91</sup>. For an alternative DAG proposed by an anonymous reviewer see fig. S1b. Our data is publicly available, and we encourage other researchers to explore this and other alternative models.

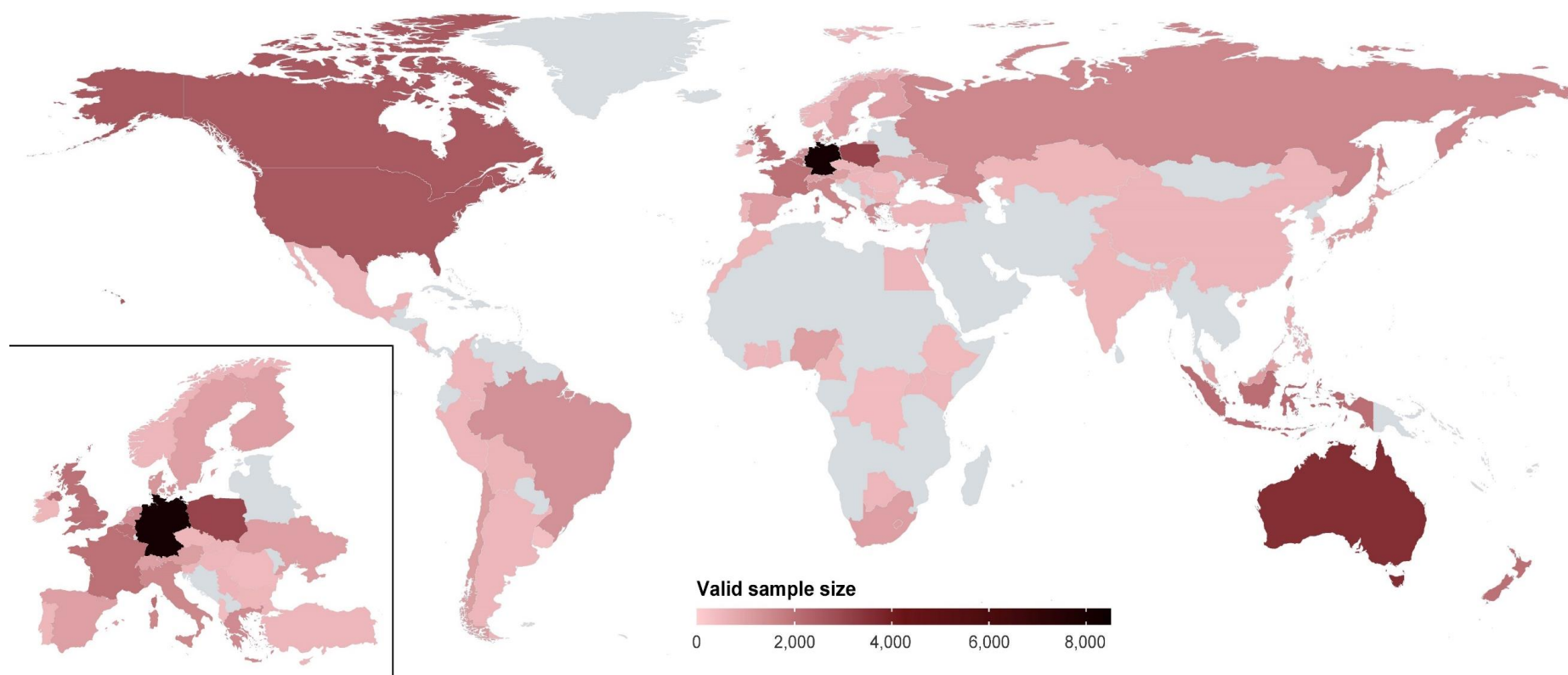
**Fig. S1a. Directed acyclic graph (DAG) underlying results presented in Fig. 1**



**Fig. S1b. Alternative DAG proposed by an anonymous reviewer**



**Fig. S2. Valid sample sizes across countries.**



*Note:* See Mede et al.<sup>46</sup> for valid sample sizes across countries.

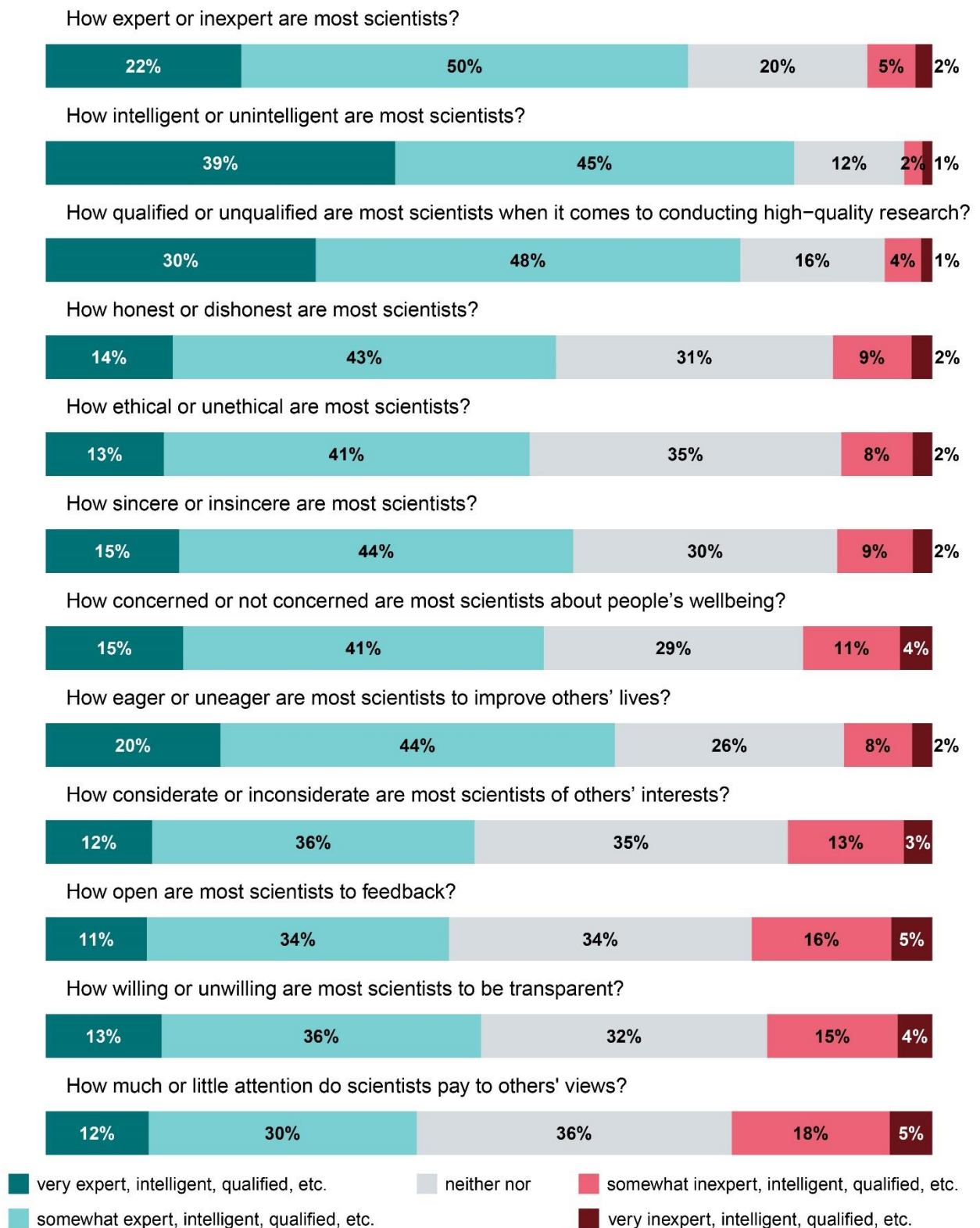


**Table S1. Weighted grand mean, median, SD, and SE for the 12-item index measuring trust in scientists, the four 3-item mean indices measuring the four dimensions, the 12 individual items, as well as the 1-item measures for confidence in scientists and trust in the scientific method.**

| <i>Variable</i>                                                                                     | <i>n</i> | <i>M</i> | <i>SE</i> | <i>SD</i> | <i>Me</i> |
|-----------------------------------------------------------------------------------------------------|----------|----------|-----------|-----------|-----------|
| <b>Confidence that scientists act in the best interests of the public</b>                           | 69,507   | 3.57     | 0.01      | 1.06      | 4.00      |
| <b>Trust in the scientific method</b>                                                               | 69,521   | 4.07     | 0.01      | 0.96      | 4.00      |
| <b>Trust in scientists (12-item index)</b>                                                          | 69,527   | 3.62     | <0.001    | 0.70      | 3.67      |
| <b>Competence</b>                                                                                   | 69,526   | 4.02     | <0.001    | 0.71      | 4.00      |
| How expert or inexperienced are most scientists?                                                    | 69,506   | 3.85     | 0.01      | 0.89      | 4.00      |
| How intelligent or unintelligent are most scientists?                                               | 69,502   | 4.20     | <0.001    | 0.81      | 4.00      |
| How qualified or unqualified are most scientists when it comes to conducting high-quality research? | 69,500   | 4.02     | 0.01      | 0.86      | 4.00      |
| <b>Integrity</b>                                                                                    | 69,526   | 3.58     | <0.001    | 0.78      | 3.67      |
| How honest or dishonest are most scientists?                                                        | 69,501   | 3.58     | 0.01      | 0.92      | 4.00      |
| How ethical or unethical are most scientists?                                                       | 69,505   | 3.55     | 0.01      | 0.90      | 4.00      |
| How sincere or insincere are most scientists?                                                       | 69,500   | 3.62     | 0.01      | 0.92      | 4.00      |
| <b>Benevolence</b>                                                                                  | 69,522   | 3.55     | 0.01      | 0.82      | 3.67      |
| How concerned or not concerned are most scientists about people's well-being?                       | 69,501   | 3.53     | 0.01      | 1.00      | 4.00      |
| How eager or uneager are most scientists to improve others' lives?                                  | 69,501   | 3.72     | 0.01      | 0.94      | 4.00      |
| How considerate or inconsiderate are most scientists of others' interests?                          | 69,488   | 3.41     | 0.01      | 0.97      | 3.00      |
| <b>Openness</b>                                                                                     | 69,523   | 3.33     | 0.01      | 0.86      | 3.33      |
| How open are most scientists to feedback?                                                           | 69,498   | 3.32     | 0.01      | 1.02      | 3.00      |
| How willing or unwilling are most scientists to be transparent?                                     | 69,505   | 3.40     | 0.01      | 1.01      | 3.00      |
| How much or little attention do scientists pay to others' views?                                    | 69,489   | 3.26     | 0.01      | 1.03      | 3.00      |

*Note:* Response options varied for each item, e.g., 1 = very [inexpert], 3 = neither [expert] nor [inexpert], 5 = very [expert]

**Fig. S3. Weighted response probabilities for single trust in scientists scale items.**



*Note:* Response options were adapted for each item, e.g., very sincere, very open, very honest

**Table S2. Weighted linear multilevel regression testing the association of trust in scientists with demographic characteristics, attitudes to science, and country-level indicators (random intercepts across countries)**

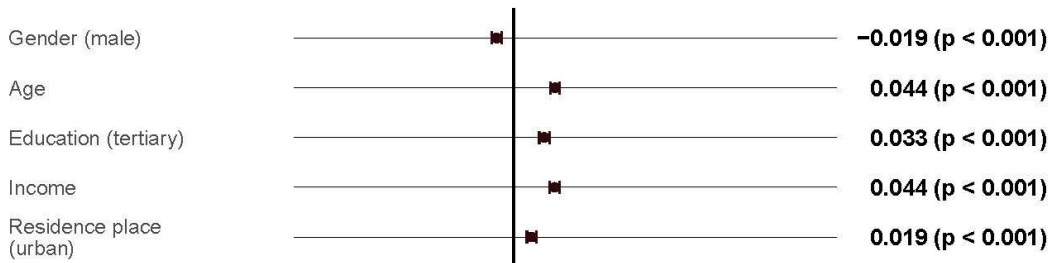
| <i>Predictors</i>                                    | <b>Block 1: Demographic characteristics</b> |              |                 |          |          |           | <b>Block 2: Ideological views</b> |              |                 |          |          |           |
|------------------------------------------------------|---------------------------------------------|--------------|-----------------|----------|----------|-----------|-----------------------------------|--------------|-----------------|----------|----------|-----------|
|                                                      | <i>Beta</i>                                 | <i>SE</i>    | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>                       | <i>SE</i>    | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                                            | 3.654                                       | 0.03         | 3.593 – 3.714   | 120.445  | <.001    | 64.424    | 3.694                             | 0.031        | 3.633 – 3.755   | 121.1    | <.001    | 63.309    |
| Gender (male)                                        | -0.019                                      | 0.003        | -0.024 – -0.014 | -7.246   | <.001    | 64389.178 | -0.012                            | 0.003        | -0.018 – -0.006 | -3.913   | <.001    | 47595.511 |
| Age                                                  | 0.029                                       | 0.002        | 0.024 – 0.034   | 11.906   | <.001    | 64426.306 | 0.016                             | 0.003        | 0.010 – 0.021   | 5.701    | <.001    | 47631.639 |
| Education (tertiary)                                 | 0.035                                       | 0.003        | 0.029 – 0.040   | 12.556   | <.001    | 63979.236 | 0.031                             | 0.003        | 0.025 – 0.037   | 10.082   | <.001    | 47298.793 |
| Income                                               | 0.035                                       | 0.003        | 0.030 – 0.040   | 13.402   | <.001    | 64396.237 | 0.025                             | 0.003        | 0.019 – 0.031   | 8.15     | <.001    | 47599.032 |
| Residence place (urban)                              | 0.029                                       | 0.003        | 0.024 – 0.034   | 11.263   | <.001    | 64385.976 | 0.03                              | 0.003        | 0.024 – 0.036   | 10.245   | <.001    | 47594.754 |
| Political orientation (right)                        |                                             |              |                 |          |          |           | 0.007                             | 0.004        | 0.000 – 0.014   | 1.964    | .049     | 47597.812 |
| Political orientation (conservative)                 |                                             |              |                 |          |          |           | -0.034                            | 0.004        | -0.041 – -0.027 | -9.624   | <.001    | 47600.43  |
| Religiosity                                          |                                             |              |                 |          |          |           | 0.051                             | 0.003        | 0.045 – 0.057   | 16.679   | <.001    | 47596.763 |
| Social dominance orientation                         |                                             |              |                 |          |          |           | -0.098                            | 0.003        | -0.104 – -0.092 | -31.982  | <.001    | 47602.442 |
| Science-related populist attitudes                   |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Perceived benefit of science                         |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Willingness to be vulnerable to science              |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Trust in the scientific method                       |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| GDP per capita                                       |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Gvt expenditure on education (% of GDP)              |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Gini index                                           |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Science literacy (PISA)                              |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Academic freedom                                     |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| Degree of populism in politics                       |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| <b>Random Effects</b>                                |                                             |              |                 |          |          |           |                                   |              |                 |          |          |           |
| $\sigma^2$                                           | 0.26                                        |              |                 |          |          |           | 0.25                              |              |                 |          |          |           |
| $\tau_{00}$                                          | 0.06                                        | COUNTRY_NAME |                 |          |          |           | 0.06                              | COUNTRY_NAME |                 |          |          |           |
| ICC                                                  | 0.19                                        |              |                 |          |          |           | 0.19                              |              |                 |          |          |           |
| N                                                    | 68                                          | COUNTRY_NAME |                 |          |          |           | 67                                | COUNTRY_NAME |                 |          |          |           |
| Observations                                         | 64458                                       |              |                 |          |          |           | 47664                             |              |                 |          |          |           |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup> | 0.015 / 0.200                               |              |                 |          |          |           | 0.052 / 0.235                     |              |                 |          |          |           |
| AIC                                                  | 168639.87                                   |              |                 |          |          |           | 121133.099                        |              |                 |          |          |           |

| <i>Predictors</i>                                    | <b>Block 3: Attitudes to science</b> |              |                 |          |              |           | <b>Block 4: Country indicators</b> |              |                 |          |              |           |
|------------------------------------------------------|--------------------------------------|--------------|-----------------|----------|--------------|-----------|------------------------------------|--------------|-----------------|----------|--------------|-----------|
|                                                      | <i>Beta</i>                          | <i>SE</i>    | <i>CI</i>       | <i>t</i> | <i>p</i>     | <i>df</i> | <i>Beta</i>                        | <i>SE</i>    | <i>CI</i>       | <i>t</i> | <i>p</i>     | <i>df</i> |
| Intercept                                            | 3.627                                | 0.031        | 3.566 – 3.689   | 117.934  | <.001        | 62.556    | 3.616                              | 0.031        | 3.554 – 3.678   | 117.571  | <.001        | 42.87     |
| Gender (male)                                        | -0.025                               | 0.002        | -0.029 – -0.020 | -10.305  | <.001        | 46632.177 | -0.024                             | 0.003        | -0.029 – -0.019 | -9.409   | <.001        | 41567.82  |
| Age                                                  | 0.007                                | 0.002        | 0.002 – 0.011   | 2.962    | <b>0.003</b> | 46658.735 | 0.007                              | 0.002        | 0.003 – 0.012   | 3.162    | <b>0.002</b> | 41581.972 |
| Education (tertiary)                                 | -0.014                               | 0.002        | -0.019 – -0.009 | -5.595   | <.001        | 46595.305 | -0.014                             | 0.003        | -0.019 – -0.009 | -5.365   | <.001        | 41608.998 |
| Income                                               | 0.005                                | 0.002        | -0.000 – 0.009  | 1.899    | 0.058        | 46634.709 | 0.005                              | 0.003        | -0.000 – 0.010  | 1.937    | 0.053        | 41566.65  |
| Residence place (urban)                              | 0.012                                | 0.002        | 0.008 – 0.017   | 5.212    | <.001        | 46631.79  | 0.014                              | 0.002        | 0.009 – 0.019   | 5.677    | <.001        | 41566.073 |
| Political orientation (right)                        | 0.008                                | 0.003        | 0.003 – 0.014   | 2.913    | <b>0.004</b> | 46633.56  | 0.008                              | 0.003        | 0.003 – 0.014   | 2.822    | <b>0.005</b> | 41567.126 |
| Political orientation<br>(conservative)              | -0.008                               | 0.003        | -0.013 – -0.002 | -2.668   | <b>0.008</b> | 46635.737 | -0.009                             | 0.003        | -0.015 – -0.003 | -2.997   | <b>0.003</b> | 41566.386 |
| Religiosity                                          | 0.051                                | 0.002        | 0.046 – 0.055   | 20.4     | <.001        | 46633.051 | 0.05                               | 0.003        | 0.045 – 0.055   | 19.269   | <.001        | 41566.853 |
| Social dominance orientation                         | -0.014                               | 0.003        | -0.019 – -0.009 | -5.549   | <.001        | 46636.959 | -0.015                             | 0.003        | -0.020 – -0.010 | -5.725   | <.001        | 41568.514 |
| Science-related populist<br>attitudes                | -0.022                               | 0.003        | -0.027 – -0.017 | -8.721   | <.001        | 46631.76  | -0.021                             | 0.003        | -0.026 – -0.016 | -8.035   | <.001        | 41566.695 |
| Perceived benefit of science                         | 0.153                                | 0.003        | 0.147 – 0.158   | 54.442   | <.001        | 46636.946 | 0.152                              | 0.003        | 0.146 – 0.158   | 51.502   | <.001        | 41567.691 |
| Willingness to be vulnerable<br>to science           | 0.184                                | 0.003        | 0.178 – 0.190   | 64       | <.001        | 46635.144 | 0.186                              | 0.003        | 0.180 – 0.192   | 61.653   | <.001        | 41568.727 |
| Trust in the scientific method                       | 0.188                                | 0.003        | 0.182 – 0.194   | 65.457   | <.001        | 46634.858 | 0.187                              | 0.003        | 0.181 – 0.193   | 62.055   | <.001        | 41566.861 |
| GDP per capita                                       |                                      |              |                 |          |              |           | 0.024                              | 0.042        | -0.060 – 0.109  | 0.577    | 0.567        | 42.423    |
| Gvt expenditure on education<br>(% of GDP)           |                                      |              |                 |          |              |           | 0.044                              | 0.036        | -0.029 – 0.117  | 1.227    | 0.226        | 43.33     |
| Gini index                                           |                                      |              |                 |          |              |           | 0.095                              | 0.033        | 0.028 – 0.162   | 2.866    | <b>0.006</b> | 43.063    |
| Science literacy (PISA)                              |                                      |              |                 |          |              |           | 0.017                              | 0.036        | -0.055 – 0.090  | 0.479    | 0.635        | 44.837    |
| Academic freedom                                     |                                      |              |                 |          |              |           | 0.013                              | 0.035        | -0.058 – 0.085  | 0.381    | 0.705        | 43.197    |
| Degree of populism in<br>politics                    |                                      |              |                 |          |              |           | -0.024                             | 0.032        | -0.089 – 0.040  | -0.762   | 0.45         | 43.511    |
| <b>Random Effects</b>                                |                                      |              |                 |          |              |           |                                    |              |                 |          |              |           |
| $\sigma^2$                                           | 0.15                                 |              |                 |          |              |           | 0.16                               |              |                 |          |              |           |
| $\tau_{00}$                                          | 0.06                                 | COUNTRY_NAME |                 |          |              |           | 0.04                               | COUNTRY_NAME |                 |          |              |           |
| ICC                                                  | 0.28                                 |              |                 |          |              |           | 0.2                                |              |                 |          |              |           |
| N                                                    | 66                                   | COUNTRY_NAME |                 |          |              |           | 51                                 | COUNTRY_NAME |                 |          |              |           |
| Observations                                         | 46707                                |              |                 |          |              |           | 41629                              |              |                 |          |              |           |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup> | 0.427 / 0.588                        |              |                 |          |              |           | 0.453 / 0.562                      |              |                 |          |              |           |
| AIC                                                  | 97220.101                            |              |                 |          |              |           | 76574.332                          |              |                 |          |              |           |

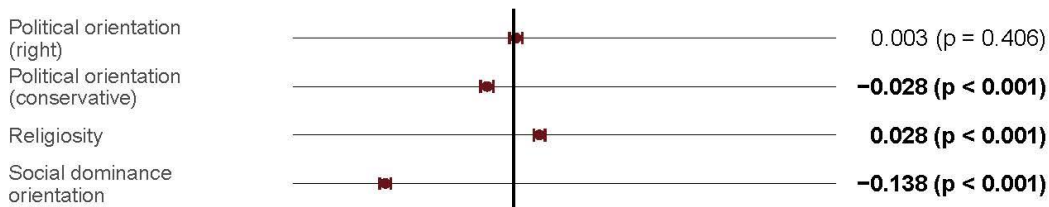
*Note:* Significant testing based on two-sided t tests. AIC = Akaike information criterion, ICC = Intraclass Correlation Coefficient.  $\sigma^2$  = within-country (residual) variance.  $\tau_{00}$  = between-country variance (variation between individual intercepts and average intercept).

**Fig. S4. Standardised estimates of weighted blockwise multilevel regression model testing the association of perceived competence with demographic characteristics, ideological views, attitudes, and country-level indicators (random intercepts across countries)**

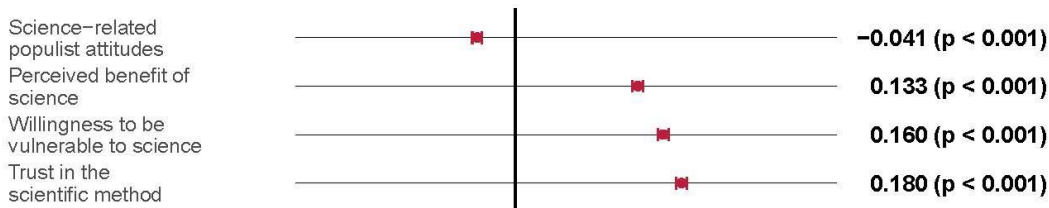
**Block 1: Demographic characteristics**



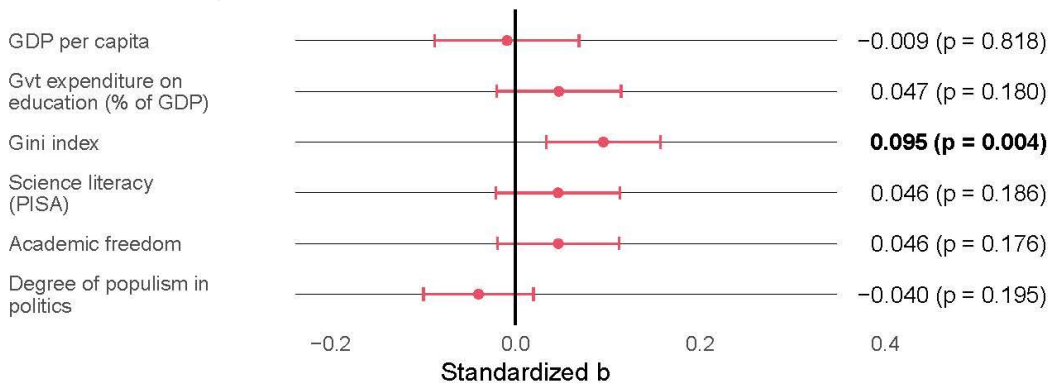
**Block 2: Ideological views**



**Block 3: Attitudes to science**



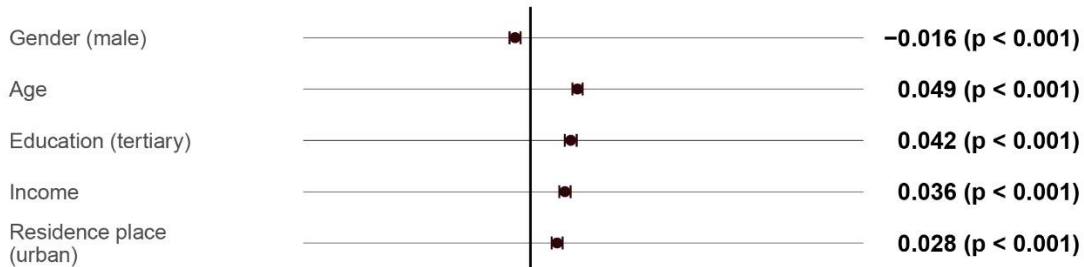
**Block 4: Country-level indicators**



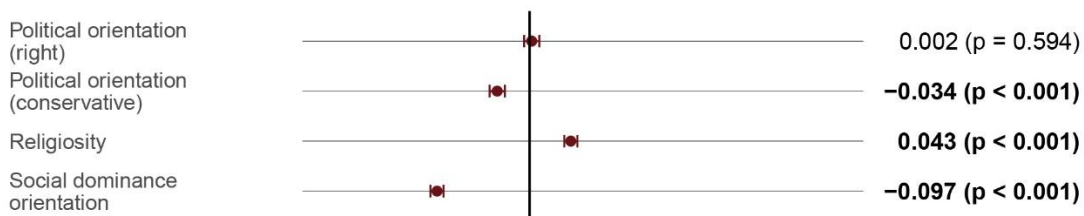
*Note:* Dots indicate point estimates of fixed effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Block 1 uses data from all 68 countries, block 2 uses data from 67 countries (all except Malaysia, where social dominance orientation was not measured), block 3 uses data from 66 countries (all except Malaysia and Mexico, where willingness to be vulnerable to science was not measured), block 4 uses data from 51 countries (all except those where PISA's literacy scores were not available, see supplementary material).

**Fig. S5. Standardised estimates of weighted blockwise multilevel regression model testing the association of perceived integrity with demographic characteristics, ideological views, attitudes, and country-level indicators (random intercepts across countries)**

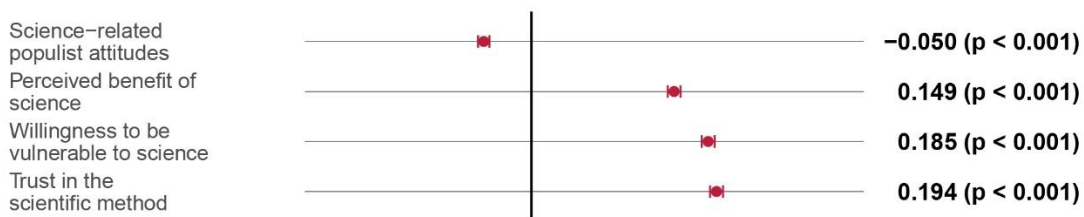
#### Block 1: Demographic characteristics



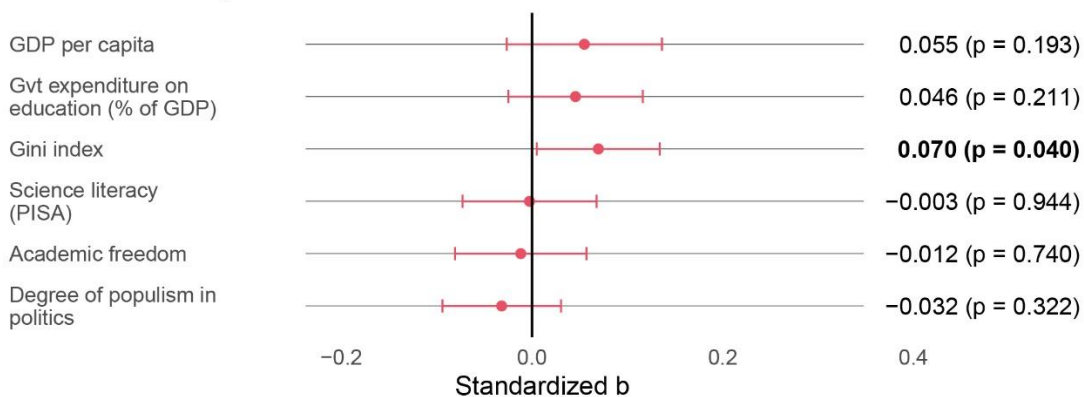
#### Block 2: Ideological views



#### Block 3: Attitudes to science



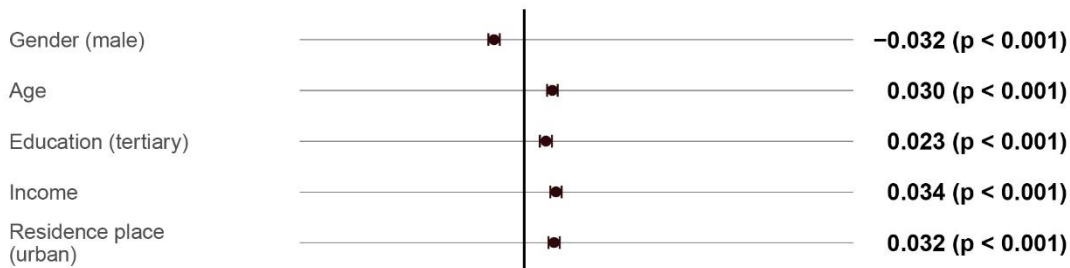
#### Block 4: Country-level indicators



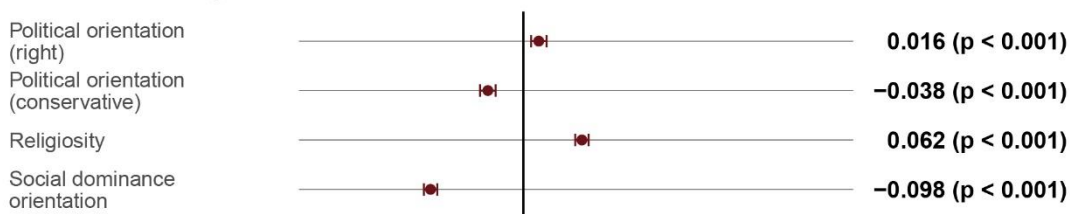
*Note:* Dots indicate point estimates of fixed effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Block 1 uses data from all 68 countries, block 2 uses data from 67 countries (all except Malaysia, where social dominance orientation was not measured), block 3 uses data from 66 countries (all except Malaysia and Mexico, where willingness to be vulnerable to science was not measured), block 4 uses data from 51 countries (all except those where PISA's literacy scores were not available, see supplementary material).

**Fig. S6. Standardised estimates of weighted blockwise multilevel regression model testing the association of perceived benevolence with demographic characteristics, ideological views, attitudes, and country-level indicators (random intercepts across countries)**

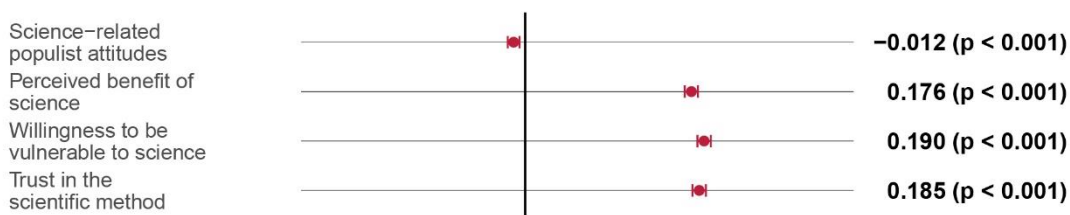
**Block 1: Demographic characteristics**



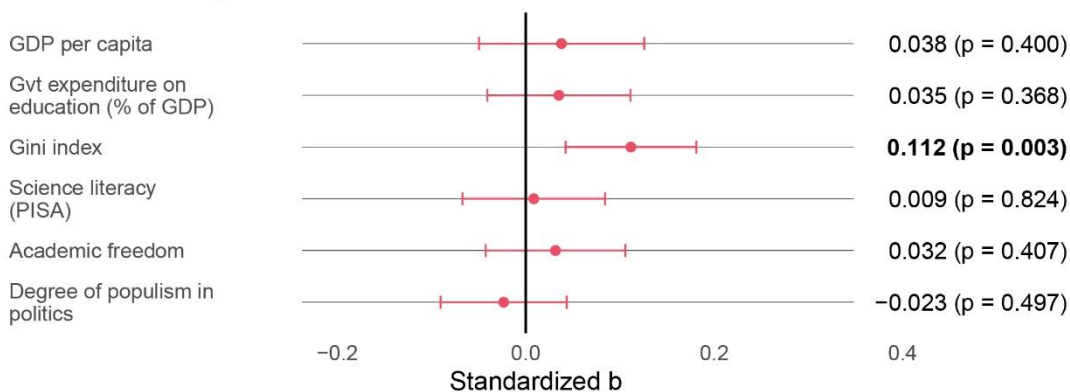
**Block 2: Ideological views**



**Block 3: Attitudes to science**



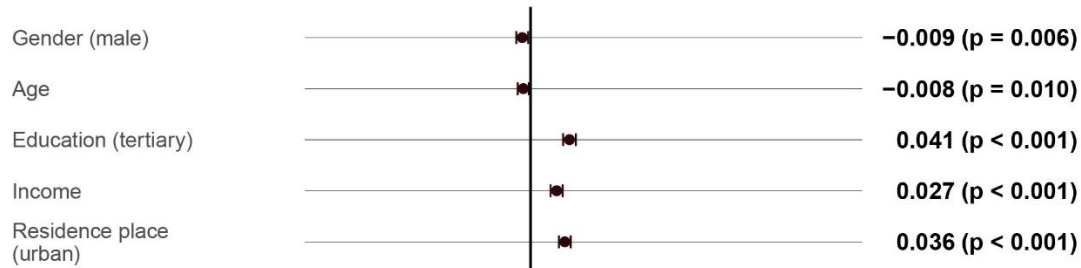
**Block 4: Country-level indicators**



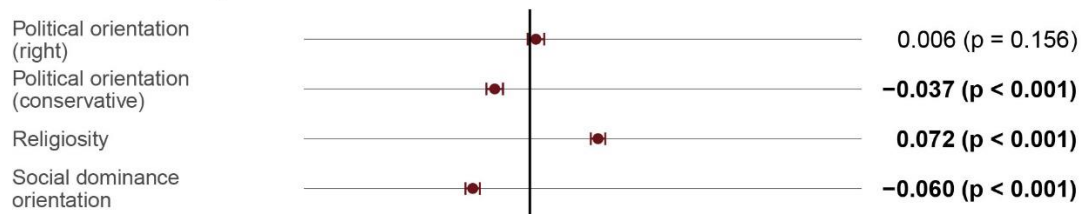
*Note:* Dots indicate point estimates of fixed effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Block 1 uses data from all 68 countries, block 2 uses data from 67 countries (all except Malaysia, where social dominance orientation was not measured), block 3 uses data from 66 countries (all except Malaysia and Mexico, where willingness to be vulnerable to science was not measured), block 4 uses data from 51 countries (all except those where PISA's literacy scores were not available, see supplementary material).

**Fig. S7. Standardised estimates of weighted blockwise multilevel regression model testing the association of perceived openness with demographic characteristics, ideological views, attitudes, and country-level indicators (random intercepts across countries)**

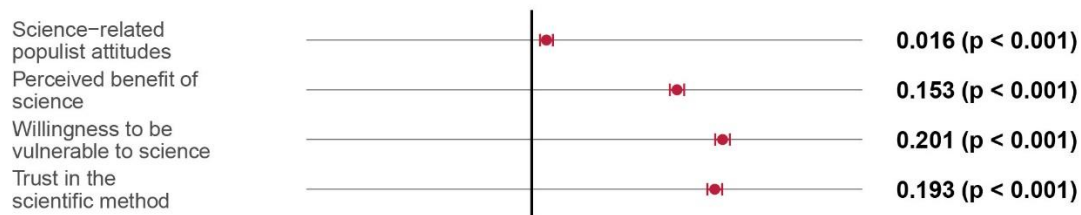
**Block 1: Demographic characteristics**



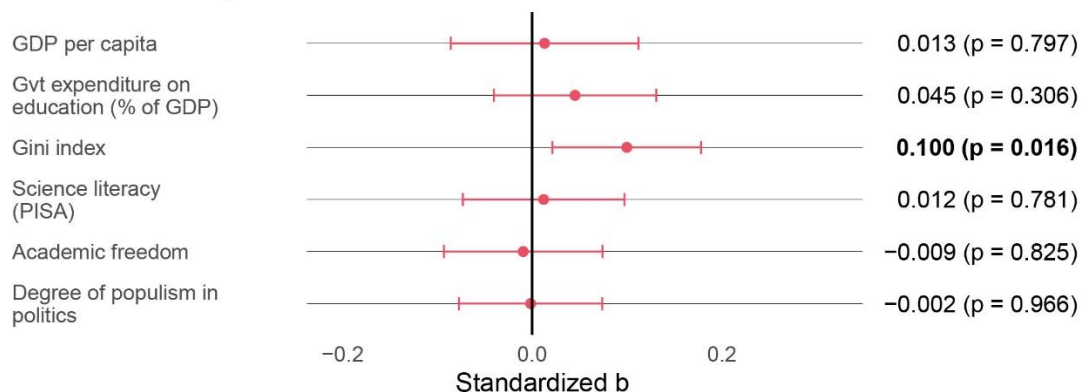
**Block 2: Ideological views**



**Block 3: Attitudes to science**



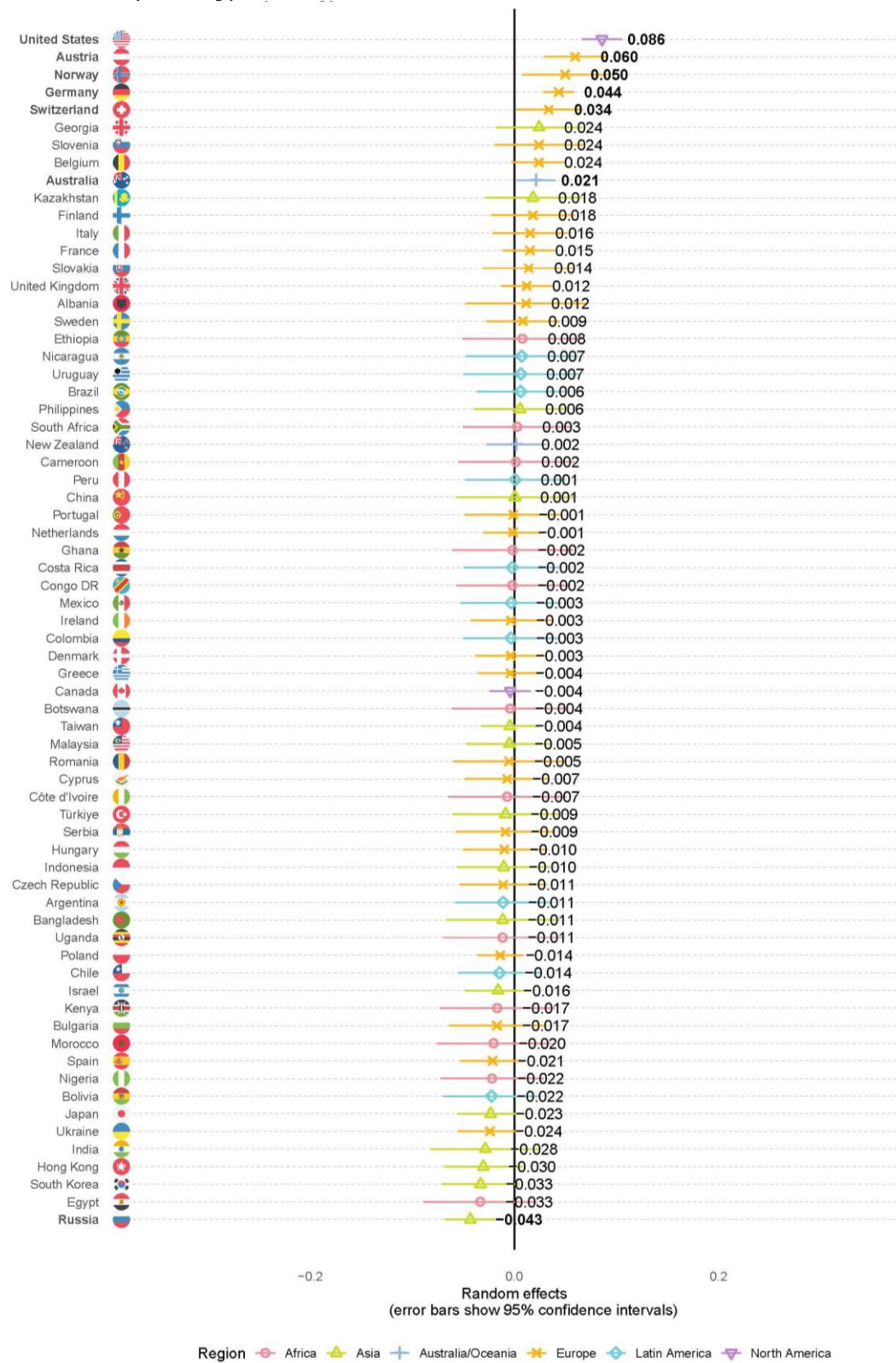
**Block 4: Country-level indicators**



*Note:* Dots indicate point estimates of fixed effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Block 1 uses data from all 68 countries, block 2 uses data from 67 countries (all except Malaysia, where social dominance orientation was not measured), block 3 uses data from 66 countries (all except Malaysia and Mexico, where willingness to be vulnerable to science was not measured), block 4 uses data from 51 countries (all except those where PISA's literacy scores were not available, see supplementary material).



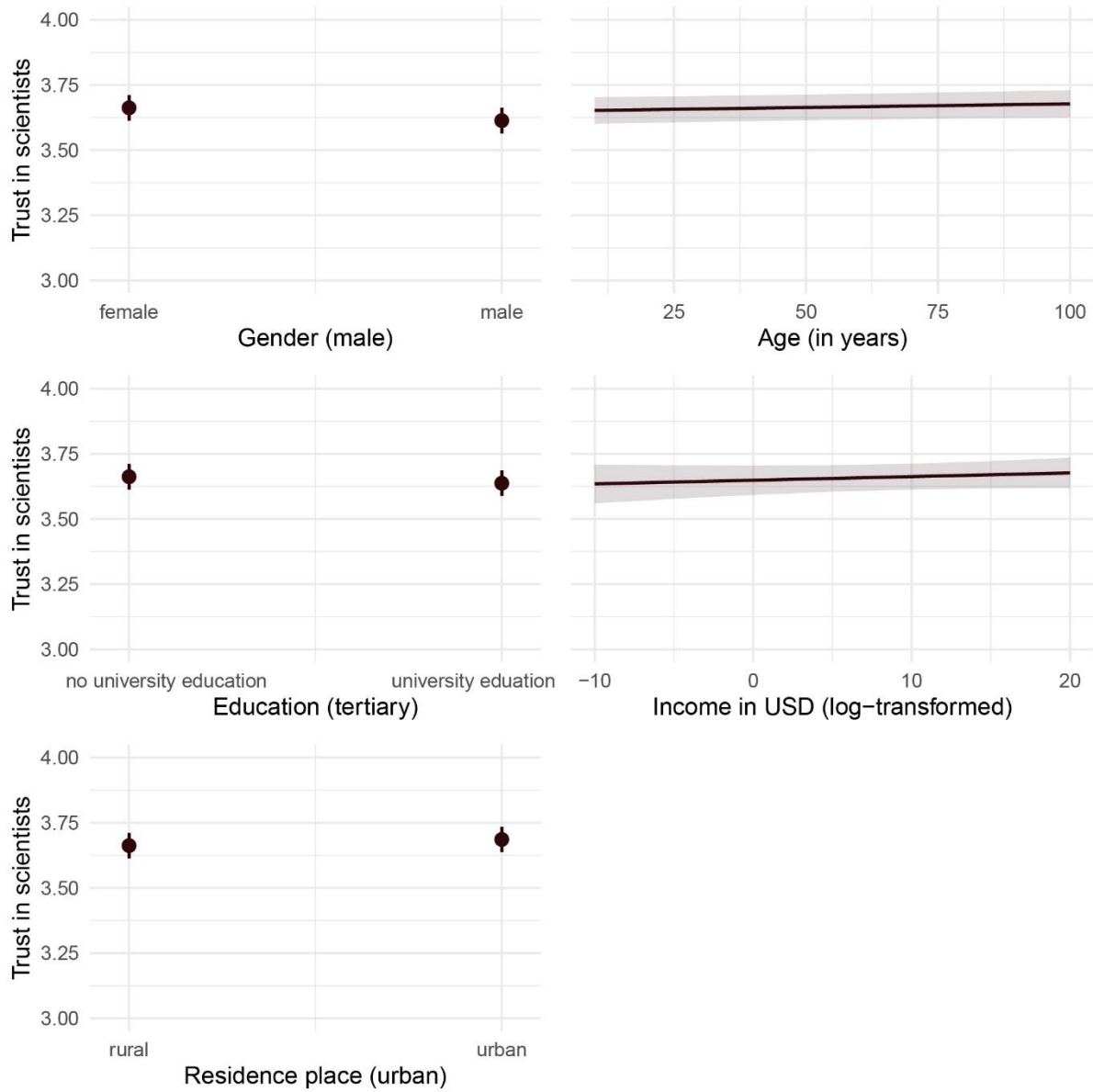
**Fig. S8. Random effects of weighted regression model explaining the relationship of education (tertiary) and trust in scientists across countries.**



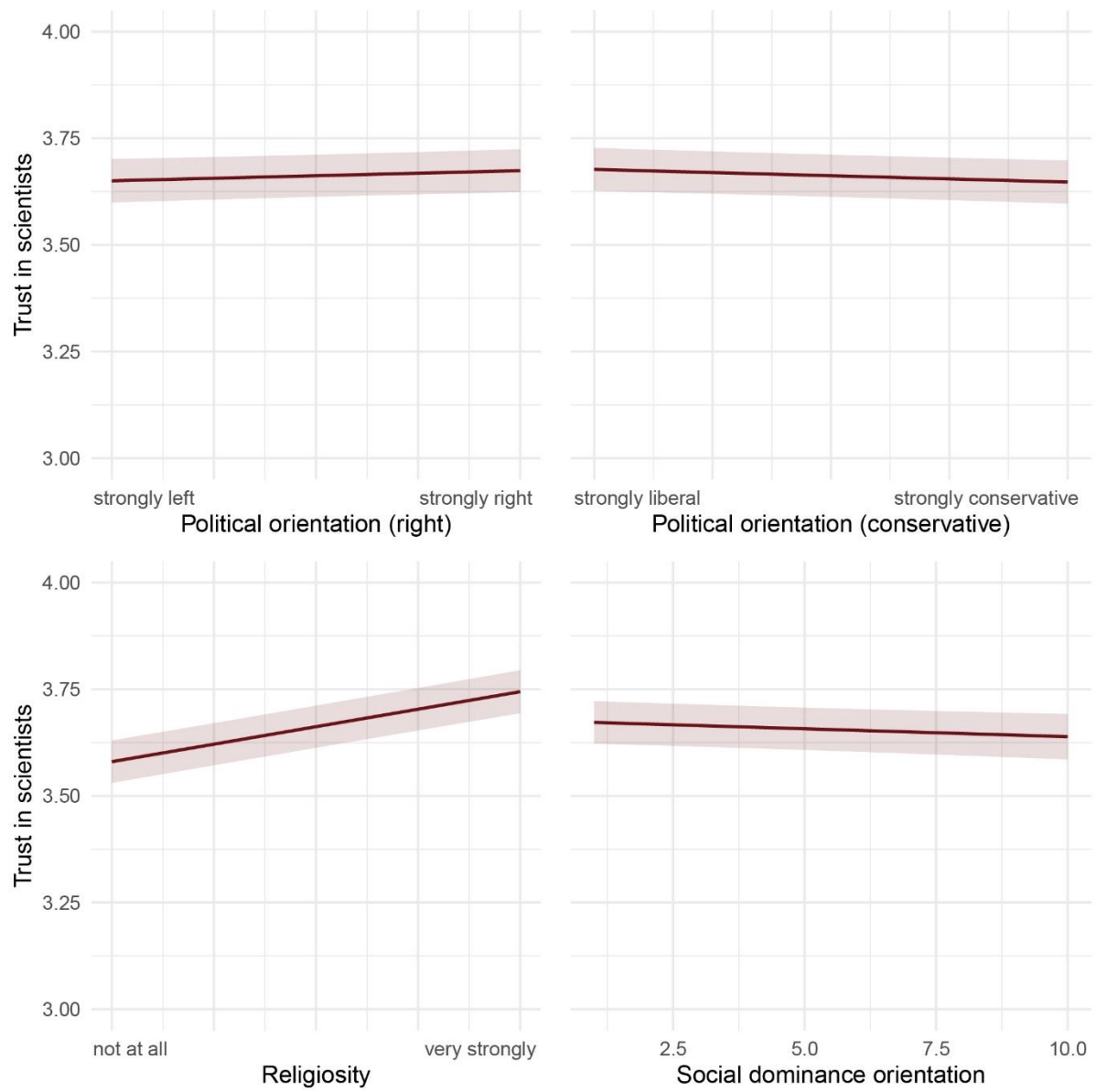
*Note:* Effects significant at  $p < .05$  are printed in bold. Total  $N = 64,458$ . Country  $N$ s range between 284 and 6,940 (see table S16 for  $N$  across countries).

**Fig. S9. Marginal effects plots for independent variables on trust in scientists as shown in Table S2.**

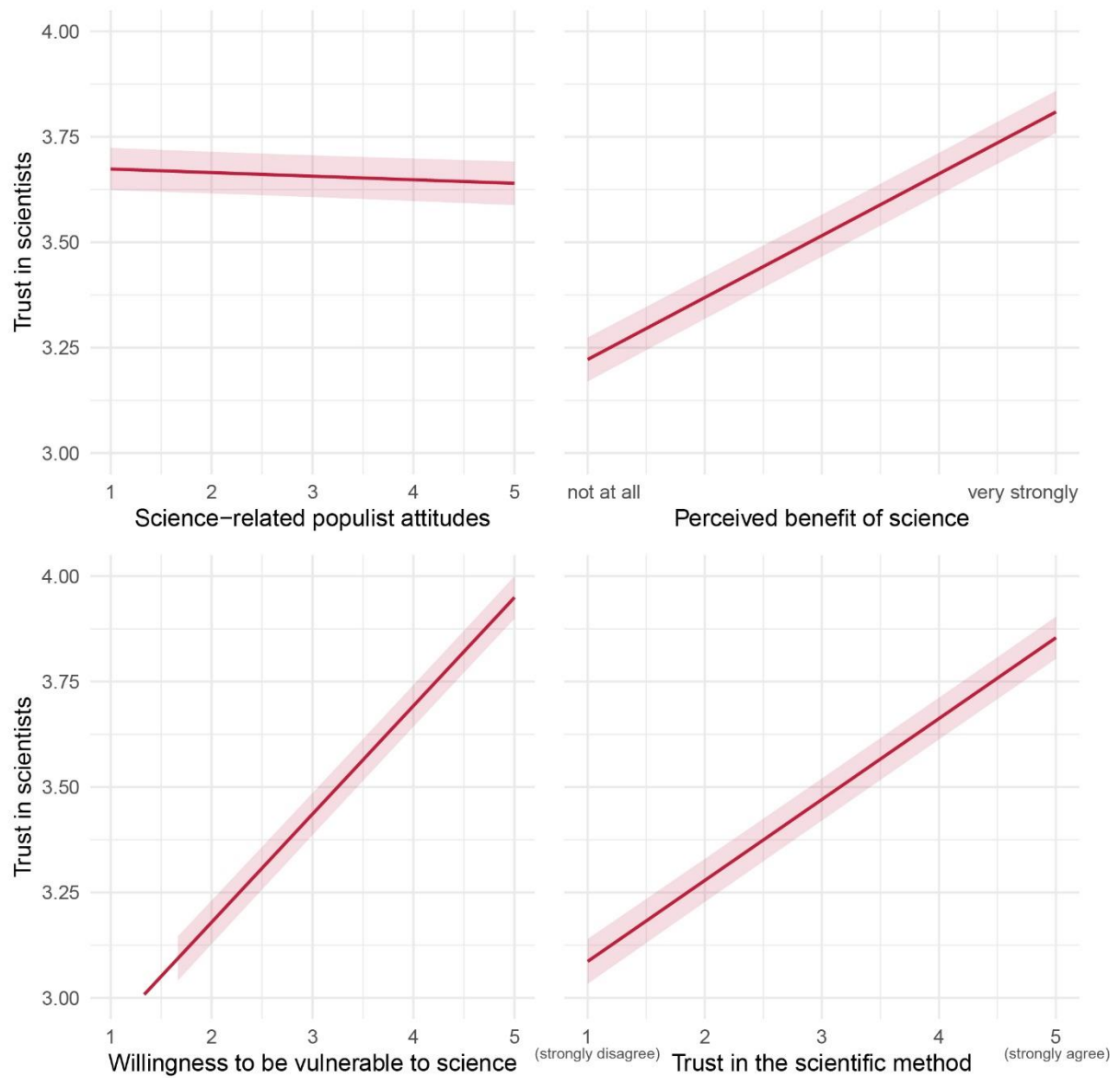
**a. Demographic characteristics**



b. Ideological views

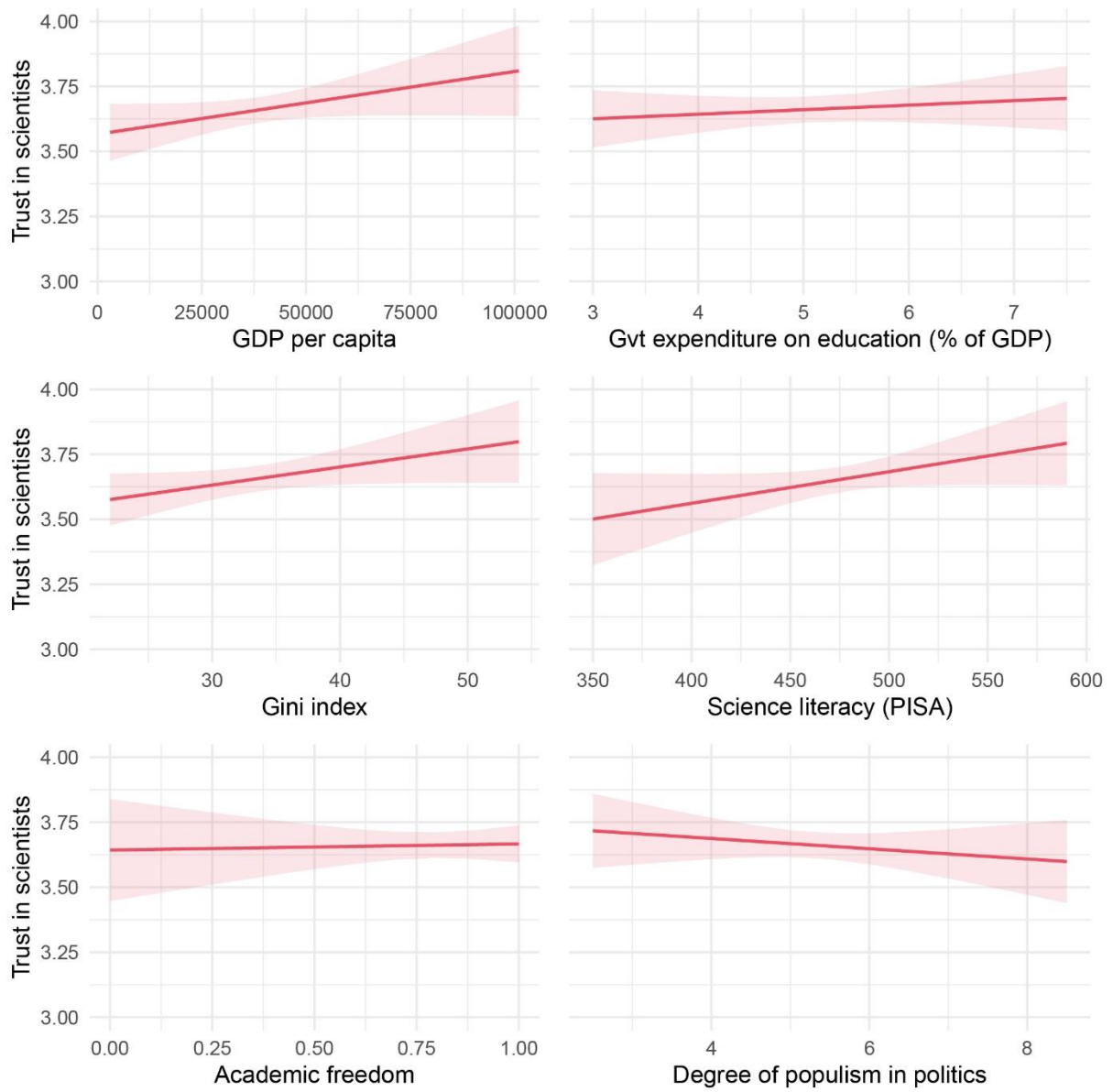


c. Attitudes to science

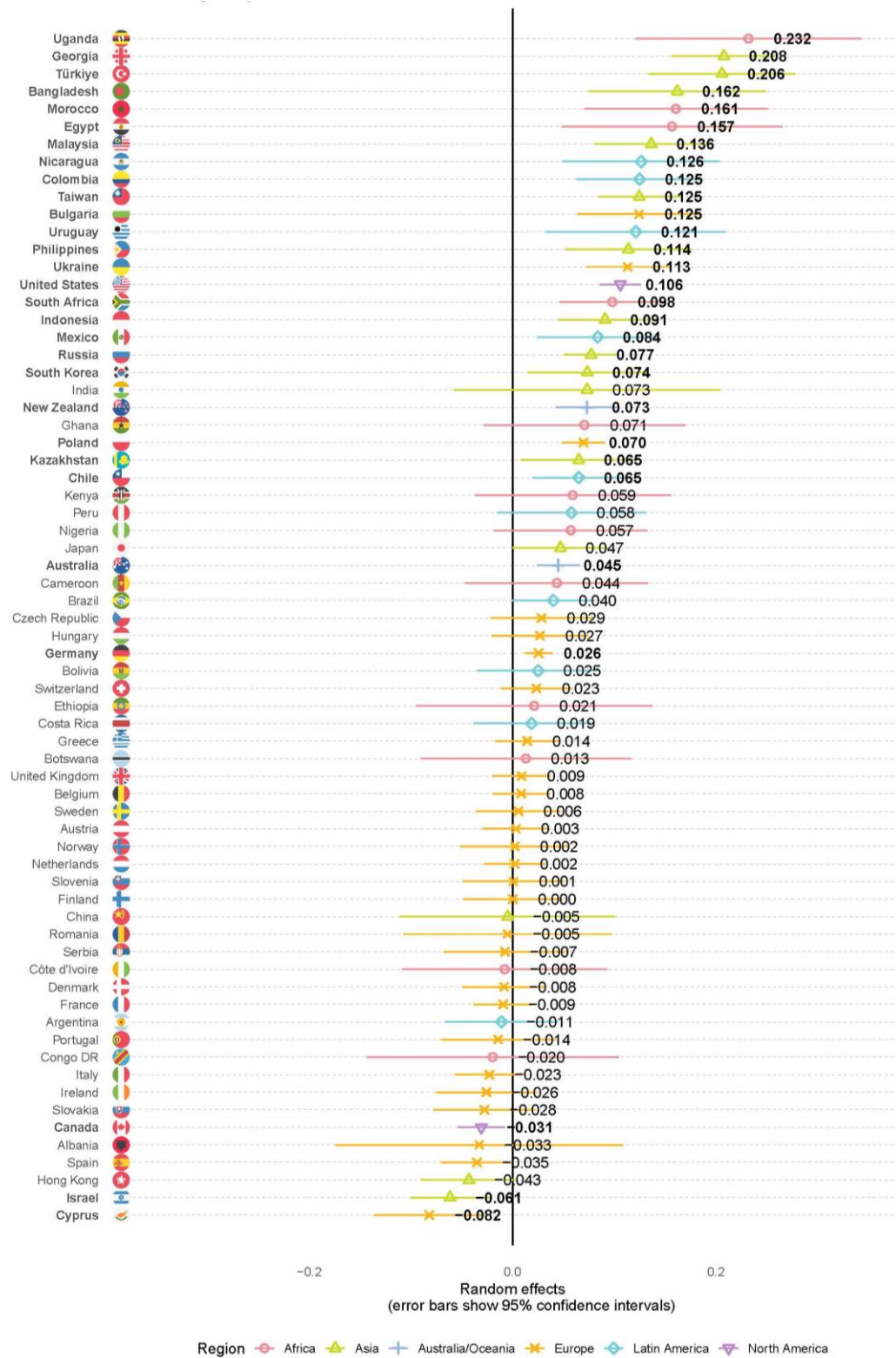


*Note:* See table S2 for number of observations. Error bands indicate 95% confidence intervals.

d. Country-level indicators



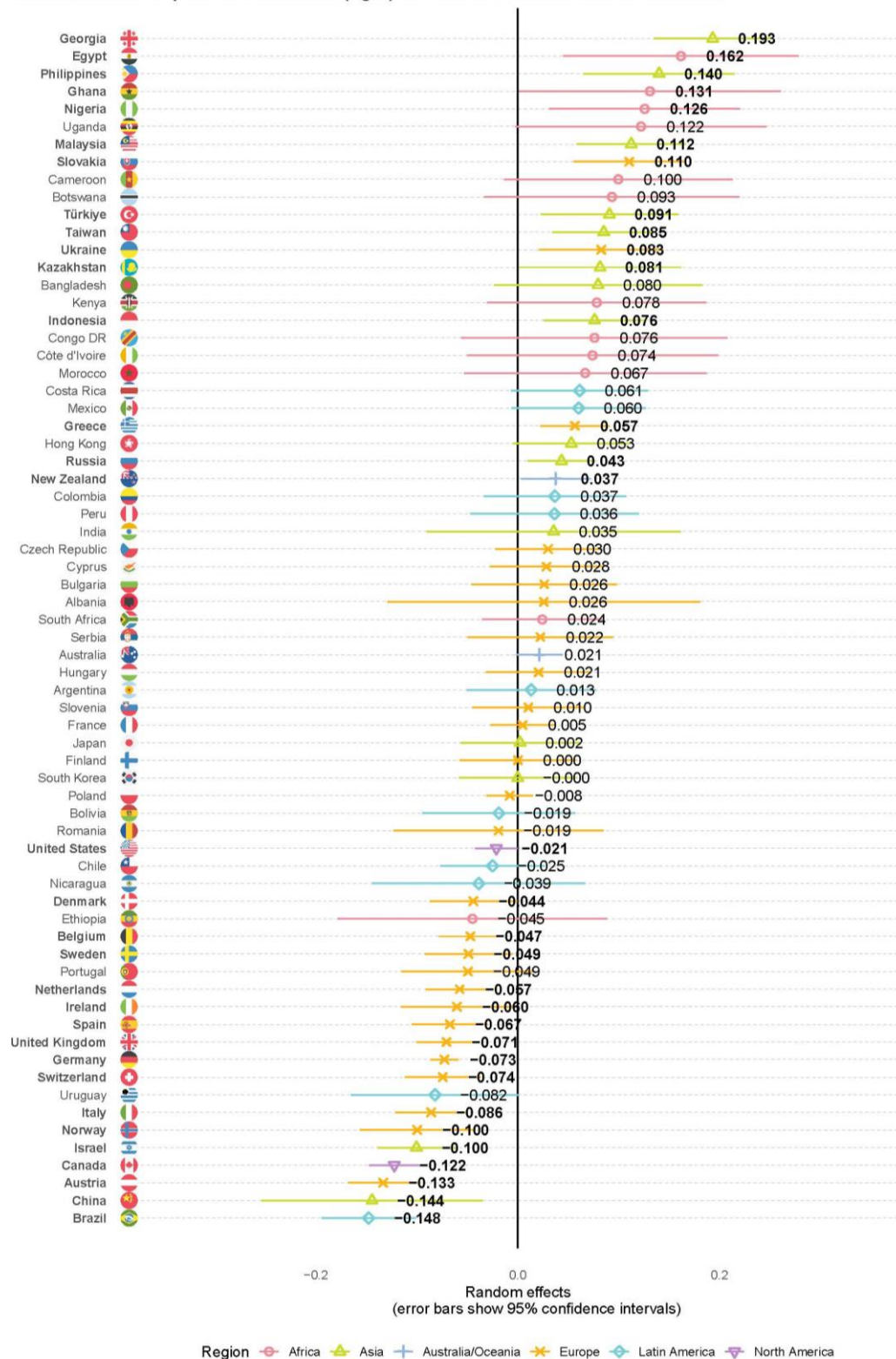
**Fig. S10. Random effects of weighted regression model explaining the relationship of religiosity and trust in scientists across countries.**



*Note:* Dots indicate point estimates of random effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Effects significant at  $p < .05$  are printed in bold. Total  $N = 64,458$ . Country  $N$ s range between 284 and 6,940 (see table S16 for  $N$  across countries).

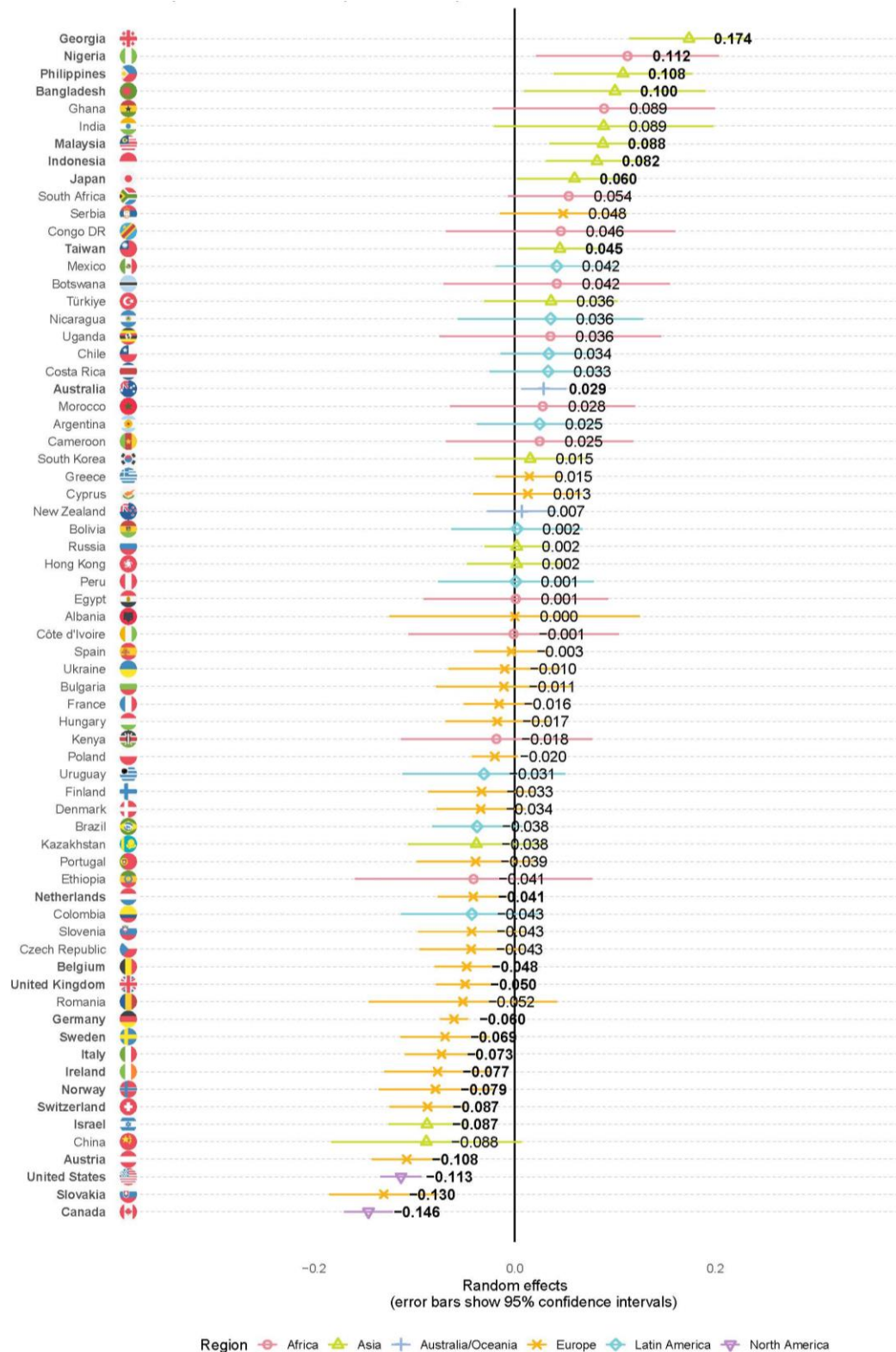


**Fig. S11. Random effects of weighted regression model explaining the relationship of political orientation (right) and trust in scientists across countries.**



*Note:* Dots indicate point estimates of random effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Effects significant at  $p < .05$  are printed in bold. Total  $N = 64,458$ . Country  $N$ s range between 284 and 6,940 (see table S16 for  $N$  across countries).

**Fig. S12. Random effects of weighted regression model explaining the relationship of political orientation (conservative) and trust in scientists across countries.**



*Note:* Dots indicate point estimates of random effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Effects significant at  $p < .05$  are printed in bold. Total  $N = 64,458$ . Country  $N$ s range between 284 and 6,940 (see table S16 for  $N$  across countries).



### **Country-specific explanations for the positive relationship between right-leaning political orientation and trust in scientists in selected countries**

As seen in Fig. 3, right-leaning individuals have more trust in scientists in some countries. Given that previous studies have mostly focused on the reasons for distrust in scientists among right-leaning individuals, we discuss why right-leaning people may have higher trust in scientists in some countries. These explanations have been informed by our co-authors in their respective countries.

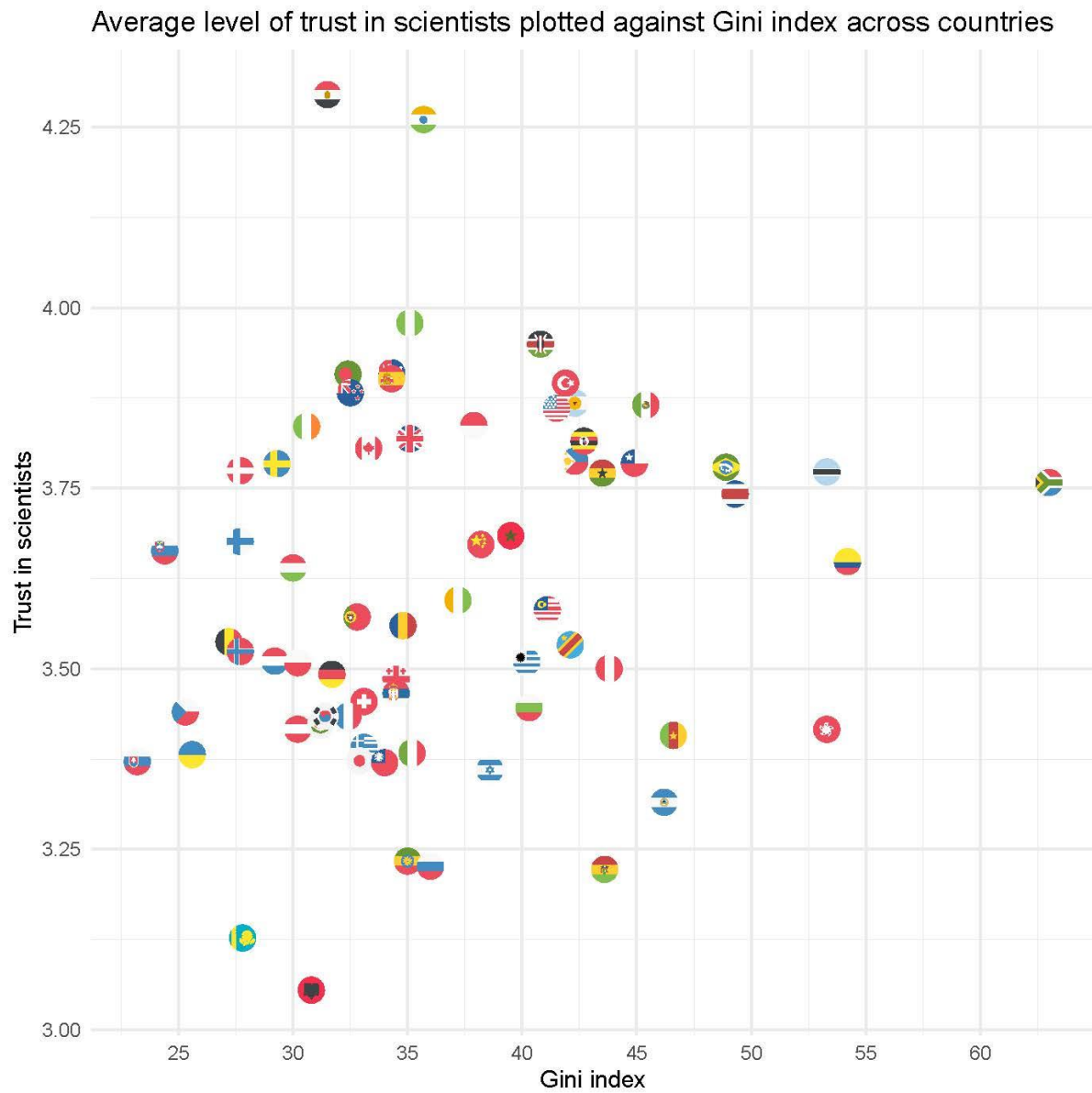
In the Philippines, left-wing political leaders have promoted reservations and scepticism towards science. At the same time, the former president of the Philippines Rodrigo Duterte, leader of a left-leaning party, heavily promoted vaccination against COVID-19 and insisted on the 'trustworthiness' of scientists and experts<sup>92</sup>. Contrary to genuinely identifying with the left, Duterte was classified as being a cultural populist who took the pandemic seriously, following many science-based strategies (vaccination, masking, etc.), but implementing these through illiberal means (hard lockdowns, "shoot-to-kill" violators of health standards)<sup>93</sup>. The term "left" was also used by the Duterte administration to refer to communists, which have been tagged by the government as terrorists. It is therefore possible that his supporters would rate themselves more towards the right and conservative ends of these spectra.

In Slovakia, higher trust levels among right-leaning people may be due to an affinity of right-leaning positions and technocracy in domestic politics<sup>94</sup>.

In Taiwan, the semantic ambiguity of the term "science" may have caused the positive relationship of right-leaning views and trust a role, as the Chinese translation of "science" includes technology and engineering (which but are often viewed favourably by right-leaning individuals) but excludes the humanities (which are often perceived more favourably by left-leaning individuals). Further, around a third of the participants (33.9%) did not answer the left-right question as this political concept is not locally used. Thus, people might not fully understand the meaning of the response options.

In Georgia, and post-Soviet countries more broadly, the left-/right-leaning political distinction might not be very meaningful to people which is why this finding should be interpreted with caution.

**Fig. S13. Average levels of trust in scientists plotted against Gini index across countries.**

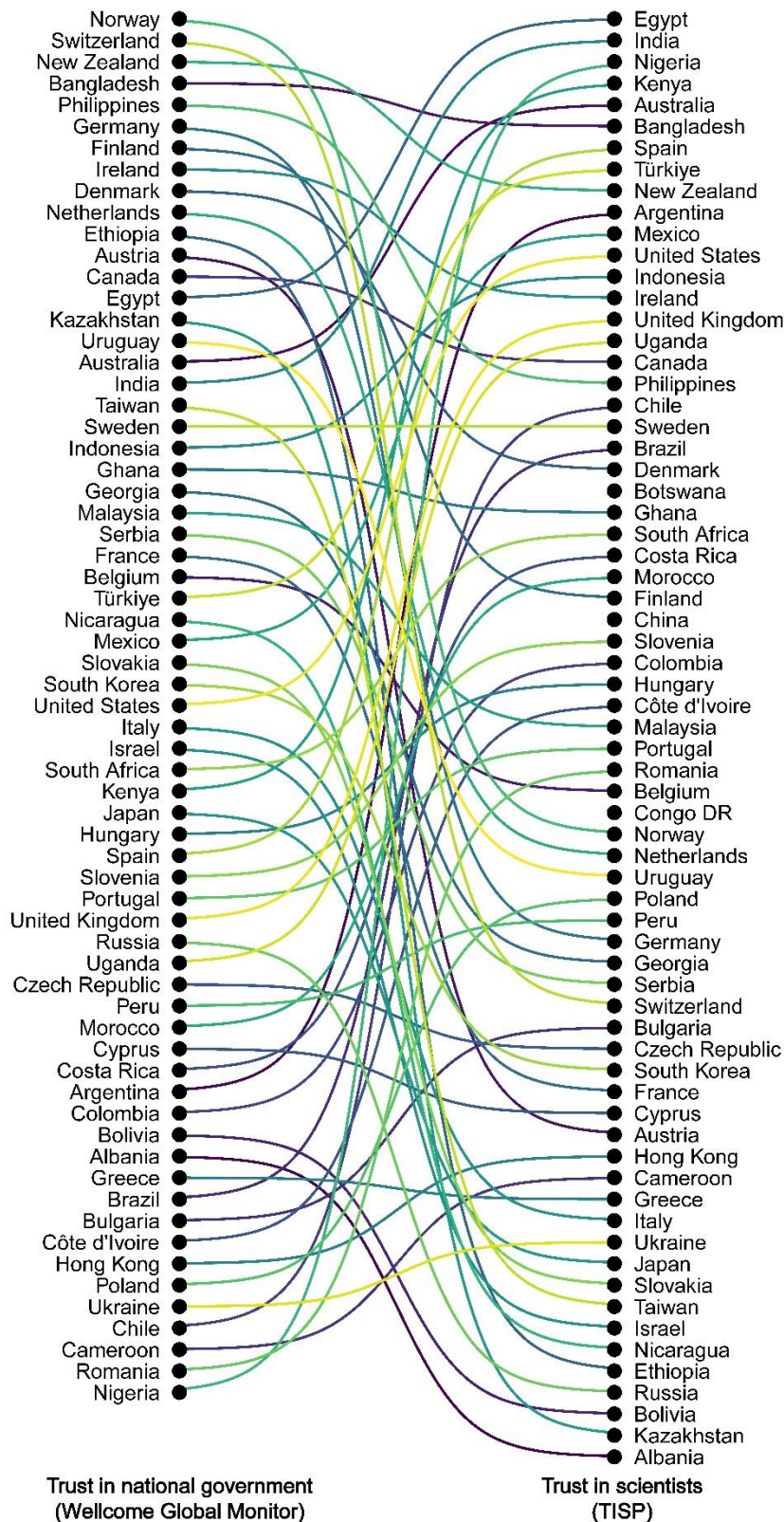


**Table S3. Weighted linear multilevel regression predicting trust in scientists (random intercepts across countries) including interaction effects of Gini index and Corruption Perceptions Index as well as Gini index and Overrepresentation of urban population**

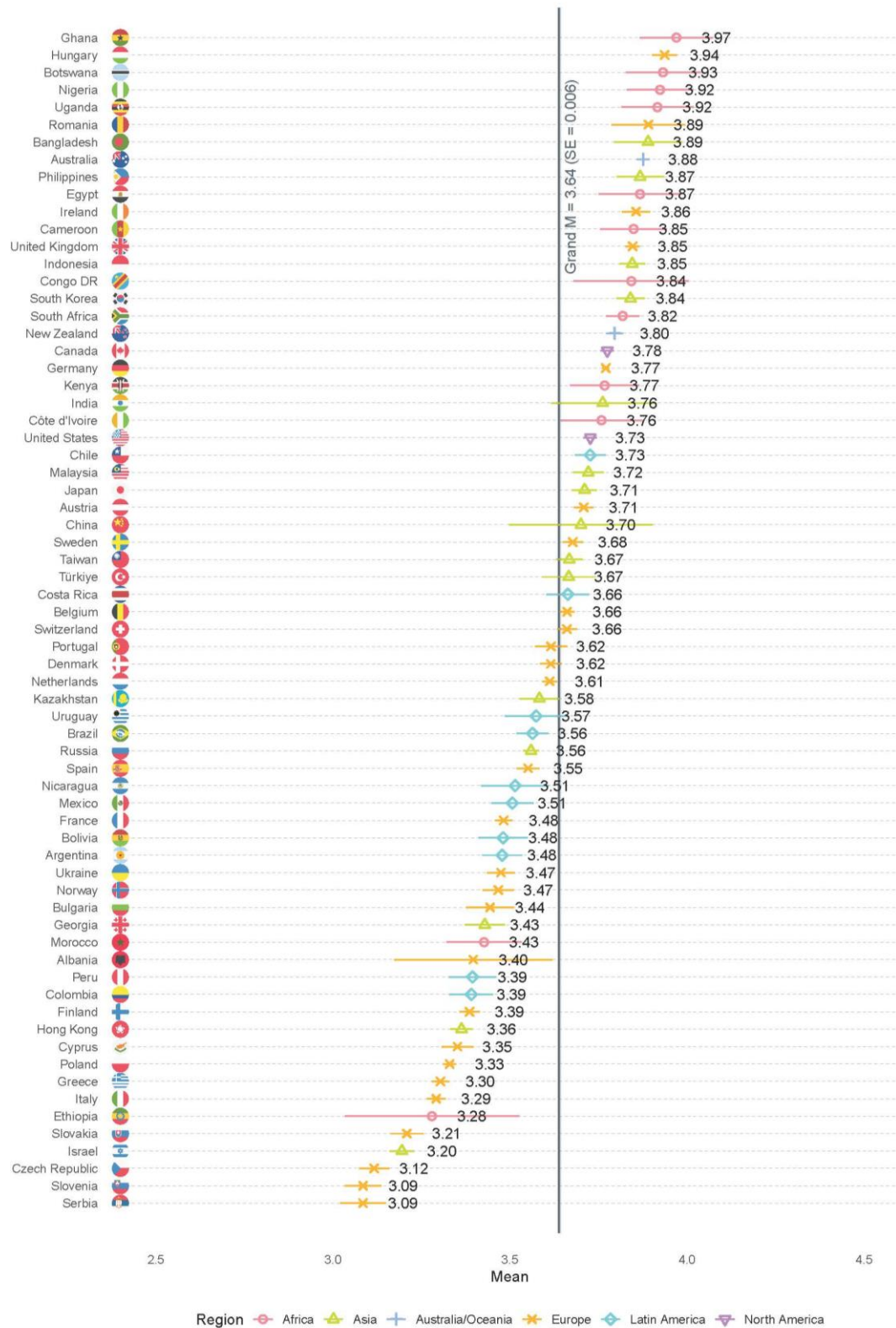
| <i>Predictors</i>                                             | <b>Trust in scientists</b> |           |                 |          |          |           |
|---------------------------------------------------------------|----------------------------|-----------|-----------------|----------|----------|-----------|
|                                                               | <i>Beta</i>                | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                                                     | 3.590                      | 0.032     | 3.525 – 3.655   | 111.914  | <.001    | 38.787    |
| Gender (male)                                                 | -0.024                     | 0.003     | -0.029 – -0.019 | -9.411   | <.001    | 41568.007 |
| Age                                                           | 0.007                      | 0.002     | 0.003 – 0.012   | 3.165    | .002     | 41581.428 |
| Education (tertiary)                                          | -0.014                     | 0.003     | -0.019 – -0.009 | -5.367   | <.001    | 41604.345 |
| Income                                                        | 0.005                      | 0.003     | -0.000 – 0.010  | 1.938    | .053     | 41566.986 |
| Residence place (urban)                                       | 0.014                      | 0.002     | 0.009 – 0.019   | 5.678    | <.001    | 41566.486 |
| Political orientation (right)                                 | 0.008                      | 0.003     | 0.003 – 0.014   | 2.824    | .005     | 41567.304 |
| Political orientation (conservative)                          | -0.009                     | 0.003     | -0.015 – -0.003 | -2.997   | .003     | 41566.759 |
| Religiosity                                                   | 0.005                      | 0.003     | 0.045 – 0.055   | 19.267   | <.001    | 41566.764 |
| Social dominance orientation                                  | -0.015                     | 0.003     | -0.020 – -0.010 | -5.727   | <.001    | 41568.885 |
| Science-related populist attitudes                            | -0.021                     | 0.003     | -0.026 – -0.016 | -8.035   | <.001    | 41566.812 |
| Perceived benefit of science                                  | 0.152                      | 0.003     | 0.146 – 0.158   | 51.502   | <.001    | 41567.473 |
| Willingness to be vulnerable to science                       | 0.186                      | 0.003     | 0.180 – 0.192   | 61.654   | <.001    | 41568.724 |
| Trust in the scientific method                                | 0.187                      | 0.003     | 0.181 – 0.193   | 62.053   | <.001    | 41567.251 |
| GDP per capita                                                | -0.013                     | 0.053     | -0.120 – 0.093  | -0.254   | .801     | 38.171    |
| Gvt expenditure on education (% of GDP)                       | 0.028                      | 0.036     | -0.044 – 0.101  | 0.787    | .436     | 39.529    |
| Gini index                                                    | 0.059                      | 0.034     | -0.010 – 0.128  | 1.726    | .092     | 38.713    |
| Science literacy (PISA)                                       | 0.008                      | 0.038     | -0.069 – 0.084  | 0.203    | .840     | 41.182    |
| Academic freedom                                              | -0.024                     | 0.039     | -0.102 – 0.054  | -0.622   | .538     | 38.912    |
| Degree of populism in politics                                | -0.001                     | 0.035     | -0.072 – 0.070  | -0.034   | .973     | 39.389    |
| Perceived level of corruption                                 | -0.101                     | 0.077     | -0.256 – 0.054  | -1.323   | .194     | 38.319    |
| Overrepresentation of urban population in sample              | 0.016                      | 0.051     | -0.088 – 0.120  | 0.312    | .757     | 39.214    |
| Gini index x Perceived level of corruption                    | 0.114                      | 0.044     | 0.026 – 0.202   | 2.611    | .013     | 38.452    |
| Gini index x Overrepresentation of urban population in sample | -0.065                     | 0.063     | -0.193 – 0.063  | -1.026   | .311     | 38.409    |
| <b>Random Effects</b>                                         |                            |           |                 |          |          |           |
| $\sigma^2$                                                    |                            |           |                 |          |          | 0.16      |
| $\tau_{00}$                                                   |                            |           |                 |          |          | 0.04      |
| ICC                                                           |                            |           |                 |          |          | 0.19      |
| N                                                             |                            |           |                 |          |          | 51        |
| Observations                                                  |                            |           |                 |          |          | 41629     |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup>          | 0.462 / 0.562              |           |                 |          |          |           |
| AIC                                                           |                            |           |                 |          |          | 76590.573 |

Note: Significant testing based on two-sided t tests. The Corruption Perceptions Index was retrieved from Transparency International (2018) and reversed so that higher values represent higher perceived corruption. To estimate the overrepresentation of urban population in our sample, we calculated a difference score for each country with the actual difference in urban and rural populations according to data from the World Bank and the difference in urban and rural populations in our sample. Larger values therefore indicate oversampling of urban populations in our sample.

**Fig. S14. Comparison of rankings of trust in scientists (TISP data) and trust in the national government (Global Wellcome Monitor data).**



**Fig. S15. Weighted means and standard errors of normative perceptions of scientists' engagement across countries**



*Note:* Error bars means +/- standard error. Vertical line indicates the grand mean. Total  $N = 69,510$ . Country  $N$ s range between 312 and 8,011 (see table S20 for  $N$  across countries).

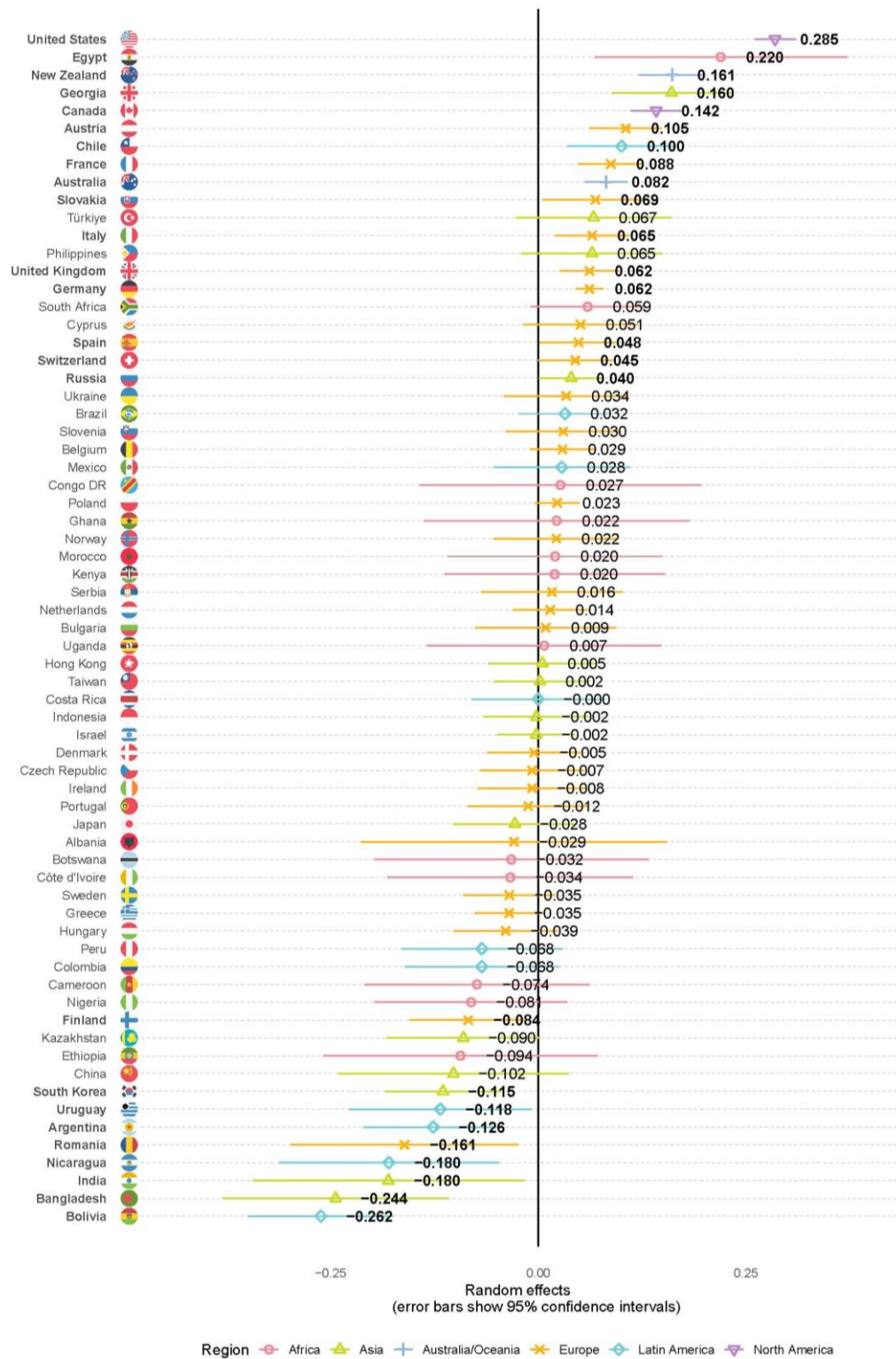
**Table S4. Weighted linear multilevel regression explaining normative perceptions of science (random intercepts across countries).**

| <i>Predictors</i>                                    | <b>Normative perceptions of science</b> |           |                 |          |          |           |
|------------------------------------------------------|-----------------------------------------|-----------|-----------------|----------|----------|-----------|
|                                                      | <i>Beta</i>                             | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                                            | 3.685                                   | 0.029     | 3.626 – 3.743   | 124.927  | <.001    | 66.701    |
| Trust in scientists                                  | 0.262                                   | 0.015     | 0.232 – 0.291   | 17.857   | <.001    | 48.473    |
| Science-related populist attitudes                   | 0.091                                   | 0.012     | 0.067 – 0.115   | 7.631    | <.001    | 43.641    |
| Gender (male)                                        | 0.003                                   | 0.003     | -0.003 – 0.010  | 0.962    | .336     | 47534.96  |
| Age                                                  | -0.027                                  | 0.003     | -0.033 – -0.020 | -8.426   | <.001    | 47602.09  |
| Education (tertiary)                                 | 0.037                                   | 0.003     | 0.031 – 0.044   | 10.74    | <.001    | 46780.9   |
| Income                                               | 0.007                                   | 0.003     | 0.001 – 0.014   | 2.136    | .033     | 47538.03  |
| Residence place (urban)                              | 0.015                                   | 0.003     | 0.009 – 0.022   | 4.536    | <.001    | 47515.59  |
| Political orientation (right)                        | -0.02                                   | 0.004     | -0.028 – -0.012 | -4.914   | <.001    | 47562.61  |
| Political orientation (conservative)                 | -0.032                                  | 0.004     | -0.040 – -0.024 | -7.91    | <.001    | 47550.38  |
| Religiosity                                          | 0.008                                   | 0.004     | 0.001 – 0.015   | 2.352    | .019     | 47564.3   |
| Social dominance orientation                         | -0.084                                  | 0.004     | -0.091 – -0.077 | -23.528  | <.001    | 47547.65  |
| <b>Random Effects</b>                                |                                         |           |                 |          |          |           |
| $\sigma^2$                                           | 0.31                                    |           |                 |          |          |           |
| $\tau_{00}$                                          | 0.05                                    |           |                 |          |          |           |
| $\tau_{11}$                                          | 0.01                                    |           |                 |          |          |           |
| $\tau_{11}$                                          | 0.01                                    |           |                 |          |          |           |
| $\rho_{01}$                                          | -0.11                                   |           |                 |          |          |           |
|                                                      | -0.46                                   |           |                 |          |          |           |
| ICC                                                  | 0.19                                    |           |                 |          |          |           |
| N <sub>COUNTRY_NAME</sub>                            | 67                                      |           |                 |          |          |           |
| Observations                                         | 47646                                   |           |                 |          |          |           |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup> | 0.179 / 0.332                           |           |                 |          |          |           |
| AIC                                                  | 132786.797                              |           |                 |          |          |           |

*Note:* Significant testing based on two-sided t tests. AIC = Akaike information criterion, ICC = Intraclass Correlation Coefficient.  $\sigma^2$  = within-country (residual) variance.  $\tau_{00}$  = between-country variance (variation between individual intercepts and average intercept).  $\tau_{11}$  = random slope variance (variation between individual slopes and average slope).  $\rho_{01}$  = random intercept-slope correlation.



**Fig. S16. Random effects of weighted regression model explaining the relationship of trust in scientists and normative perceptions of science in society and policymaking across countries.**



*Note:* Dots indicate point estimates of random effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Effects significant at  $p < .05$  are printed in bold. Total  $N = 47,646$ . Country  $N$ s range between 171 and 5,918 (see table S16 for  $N$  across countries).

**Note on analyses on the discrepancy between perceived and desired research priorities.**

The preregistered analyses treated the discrepancy between perceived and desired priorities as the dependent variable and trust in scientists as an independent variable (Table S5). We ran an exploratory analysis with trust in scientists as the dependent variable and the discrepancy scores as independent variables. The results of these exploratory analyses are reported in the main text and Table S6.



**Table S5. Weighted linear multilevel regressions explaining whether perceived priorities exceed desired priorities (random effects of trust in scientists and science-related populist attitudes across countries)**

| <i>Predictors</i>                       | Improve public health |           |                 |          |          |           | Solve energy problems |           |                 |          |          |           |
|-----------------------------------------|-----------------------|-----------|-----------------|----------|----------|-----------|-----------------------|-----------|-----------------|----------|----------|-----------|
|                                         | <i>Beta</i>           | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>           | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                               | -0.647                | 0.04      | -0.727 – -0.568 | -16.352  | <.001    | 48.809    | -0.527                | 0.035     | -0.598 – -0.456 | -14.968  | <.001    | 45.265    |
| Trust in scientists                     | 0.304                 | 0.017     | 0.270 – 0.338   | 18.035   | <.001    | 50.476    | 0.218                 | 0.014     | 0.190 – 0.246   | 15.733   | <.001    | 54.188    |
| Science-related populist attitudes      | -0.027                | 0.01      | -0.046 – -0.007 | -2.768   | .008     | 40.707    | -0.001                | 0.01      | -0.023 – 0.020  | -0.125   | .901     | 37.882    |
| Gender (male)                           | 0.052                 | 0.005     | 0.042 – 0.062   | 10.125   | <.001    | 41532     | 0.01                  | 0.005     | -0.001 – 0.020  | 1.862    | .063     | 41531.1   |
| Age                                     | -0.048                | 0.005     | -0.057 – -0.039 | -10.115  | <.001    | 41106     | -0.018                | 0.005     | -0.027 – -0.008 | -3.681   | <.001    | 41298.4   |
| Education (tertiary)                    | 0.006                 | 0.005     | -0.004 – 0.017  | 1.238    | .216     | 41057     | -0.01                 | 0.005     | -0.021 – 0.001  | -1.85    | .064     | 40817.5   |
| Income                                  | -0.01                 | 0.005     | -0.020 – 0.000  | -1.941   | .052     | 41547     | 0.001                 | 0.005     | -0.010 – 0.011  | 0.161    | .872     | 41528.4   |
| Residence place (urban)                 | -0.006                | 0.005     | -0.016 – 0.004  | -1.143   | .253     | 41548     | -0.013                | 0.005     | -0.023 – -0.003 | -2.536   | .011     | 41528.8   |
| Political orientation (right)           | 0.032                 | 0.006     | 0.020 – 0.044   | 5.233    | <.001    | 41460     | 0.045                 | 0.006     | 0.033 – 0.057   | 7.208    | <.001    | 41406     |
| Political orientation (conservative)    | -0.02                 | 0.006     | -0.032 – -0.008 | -3.286   | .001     | 41533     | 0.016                 | 0.006     | 0.003 – 0.028   | 2.513    | .012     | 41520.3   |
| Religiosity                             | 0.005                 | 0.005     | -0.005 – 0.016  | 0.997    | .319     | 41492     | 0.022                 | 0.005     | 0.012 – 0.033   | 4.124    | <.001    | 41480.9   |
| Social dominance orientation            | 0.114                 | 0.005     | 0.104 – 0.125   | 21.17    | <.001    | 41057     | 0.105                 | 0.006     | 0.094 – 0.116   | 18.871   | <.001    | 41118.4   |
| Perceived benefit of science            | 0.128                 | 0.006     | 0.116 – 0.140   | 20.698   | <.001    | 41526     | 0.071                 | 0.006     | 0.059 – 0.084   | 11.231   | <.001    | 41524.4   |
| Willingness to be vulnerable to science | -0.069                | 0.006     | -0.082 – -0.057 | -10.769  | <.001    | 41410     | -0.06                 | 0.007     | -0.073 – -0.047 | -9.069   | <.001    | 41393.4   |
| Trust in the scientific method          | -0.014                | 0.006     | -0.027 – -0.002 | -2.198   | .028     | 41542     | -0.016                | 0.007     | -0.029 – -0.004 | -2.509   | .012     | 41527     |
| GDP per capita                          | 0.036                 | 0.039     | -0.042 – 0.115  | 0.94     | .353     | 38.378    | -0.019                | 0.038     | -0.096 – 0.058  | -0.493   | .625     | 38.687    |
| Gvt expenditure on education (% of GDP) | 0.035                 | 0.034     | -0.035 – 0.104  | 1.007    | .320     | 40.598    | 0.097                 | 0.034     | 0.029 – 0.165   | 2.874    | .006     | 41.151    |
| Gini index                              | 0.063                 | 0.032     | -0.002 – 0.127  | 1.951    | .057     | 45.456    | 0.009                 | 0.032     | -0.054 – 0.072  | 0.286    | .776     | 45.937    |

|                                                      |               |                                  |                |        |             |        |        |       |                |               |                                  |        |
|------------------------------------------------------|---------------|----------------------------------|----------------|--------|-------------|--------|--------|-------|----------------|---------------|----------------------------------|--------|
| Science literacy (PISA)                              | 0.126         | 0.036                            | 0.053 – 0.199  | 3.472  | <b>.001</b> | 51.253 | 0.053  | 0.036 | -0.019 – 0.124 | 1.482         | .145                             | 51.532 |
| Academic freedom                                     | -0.065        | 0.034                            | -0.134 – 0.004 | -1.895 | .065        | 44.981 | -0.044 | 0.034 | -0.112 – 0.023 | -1.318        | .194                             | 45.291 |
| Degree of populism in politics                       | -0.009        | 0.031                            | -0.071 – 0.054 | -0.272 | .787        | 45.029 | -0.004 | 0.03  | -0.065 – 0.058 | -0.127        | .900                             | 44.511 |
| <b>Random Effects</b>                                |               |                                  |                |        |             |        |        |       |                |               |                                  |        |
| $\sigma^2$                                           | 0.67          |                                  |                |        |             |        |        |       |                | 0.71          |                                  |        |
| $\tau_{00}$                                          | 0.07          | COUNTRY_NAME                     |                |        |             |        |        |       |                | 0.05          | COUNTRY_NAME                     |        |
| $\tau_{11}$                                          | 0.01          | COUNTRY_NAME.TRUST_SCI_m_z_grp   |                |        |             |        |        |       |                | 0.01          | COUNTRY_NAME.TRUST_SCI_m_z_grp   |        |
|                                                      | 0.00          | COUNTRY_NAME.SCIPOP_goertz_z_grp |                |        |             |        |        |       |                | 0.00          | COUNTRY_NAME.SCIPOP_goertz_z_grp |        |
| $\rho_{01}$                                          | -0.78         |                                  |                |        |             |        |        |       |                | -0.68         |                                  |        |
|                                                      | 0.28          |                                  |                |        |             |        |        |       |                | 0.26          |                                  |        |
| ICC                                                  | 0.11          |                                  |                |        |             |        |        |       |                | 0.08          |                                  |        |
| N                                                    | 51            | COUNTRY_NAME                     |                |        |             |        |        |       |                | 51            | COUNTRY_NAME                     |        |
| Observations                                         | 41610         |                                  |                |        |             |        |        |       |                | 41593         |                                  |        |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup> | 0.161 / 0.250 |                                  |                |        |             |        |        |       |                | 0.083 / 0.156 |                                  |        |
| AIC                                                  | 135116.454    |                                  |                |        |             |        |        |       |                | 137195.686    |                                  |        |

Table S5. Continued

| <i>Predictors</i>                  | Reduce poverty |           |                 |          |          |           | Develop defense and military technology |           |                 |          |          |           |
|------------------------------------|----------------|-----------|-----------------|----------|----------|-----------|-----------------------------------------|-----------|-----------------|----------|----------|-----------|
|                                    | <i>Beta</i>    | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>                             | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                          | -1.082         | 0.061     | -1.204 – -0.960 | -17.811  | <.001    | 48.575    | 0.881                                   | 0.061     | 0.758 – 1.003   | 14.481   | <.001    | 47.128    |
| Trust in scientists                | 0.365          | 0.021     | 0.323 – 0.408   | 17.341   | <.001    | 52.081    | -0.254                                  | 0.019     | -0.293 – -0.215 | -13.01   | <.001    | 54.508    |
| Science-related populist attitudes | 0.018          | 0.015     | -0.012 – 0.049  | 1.208    | .234     | 39.253    | -0.106                                  | 0.013     | -0.132 – -0.081 | -8.507   | <.001    | 24.089    |
| Gender (male)                      | 0.046          | 0.006     | 0.033 – 0.058   | 7.188    | <.001    | 41512     | 0.136                                   | 0.007     | 0.122 – 0.150   | 19.102   | <.001    | 41492.6   |
| Age                                | -0.055         | 0.006     | -0.067 – -0.044 | -9.388   | <.001    | 41466     | -0.034                                  | 0.007     | -0.047 – -0.021 | -5.121   | <.001    | 40129.3   |
| Education (tertiary)               | 0.011          | 0.007     | -0.002 – 0.024  | 1.705    | .088     | 41449     | 0.064                                   | 0.007     | 0.049 – 0.078   | 8.709    | <.001    | 41370.2   |
| Income                             | -0.007         | 0.006     | -0.019 – 0.006  | -1.006   | .314     | 41514     | 0.065                                   | 0.007     | 0.050 – 0.079   | 8.878    | <.001    | 41517.7   |
| Residence place (urban)            | -0.001         | 0.006     | -0.013 – 0.011  | -0.145   | .885     | 41511     | 0.006                                   | 0.007     | -0.008 – 0.020  | 0.874    | .382     | 41517.9   |
| Political orientation (right)      | 0.104          | 0.008     | 0.089 – 0.119   | 13.711   | <.001    | 41512     | -0.154                                  | 0.009     | -0.170 – -0.137 | -18.054  | <.001    | 40998.9   |

|                                                         |               |                                  |                 |         |       |        |               |                                  |                 |         |       |         |
|---------------------------------------------------------|---------------|----------------------------------|-----------------|---------|-------|--------|---------------|----------------------------------|-----------------|---------|-------|---------|
| Political orientation<br>(conservative)                 | 0.003         | 0.008                            | -0.012 – 0.018  | 0.422   | .673  | 41519  | -0.045        | 0.009                            | -0.062 – -0.028 | -5.27   | <.001 | 41450.2 |
| Religiosity                                             | 0.003         | 0.007                            | -0.010 – 0.016  | 0.485   | .628  | 41525  | -0.078        | 0.007                            | -0.093 – -0.064 | -10.578 | <.001 | 41249.3 |
| Social dominance<br>orientation                         | 0.256         | 0.007                            | 0.243 – 0.269   | 38.014  | <.001 | 41407  | -0.145        | 0.008                            | -0.160 – -0.130 | -19.231 | <.001 | 39818.5 |
| Perceived benefit of<br>science                         | 0.052         | 0.008                            | 0.037 – 0.067   | 6.783   | <.001 | 41522  | 0.071         | 0.009                            | 0.054 – 0.088   | 8.259   | <.001 | 41471.6 |
| Willingness to be<br>vulnerable to science              | -0.106        | 0.008                            | -0.122 – -0.090 | -13.261 | <.001 | 41494  | 0.117         | 0.009                            | 0.100 – 0.135   | 13.086  | <.001 | 41304.8 |
| Trust in the scientific<br>method                       | -0.03         | 0.008                            | -0.046 – -0.015 | -3.802  | <.001 | 41514  | 0.059         | 0.009                            | 0.041 – 0.076   | 6.56    | <.001 | 41519.6 |
| GDP per capita                                          | -0.025        | 0.066                            | -0.158 – 0.108  | -0.386  | .702  | 41.419 | -0.039        | 0.071                            | -0.183 – 0.105  | -0.543  | .590  | 40.964  |
| Gvt expenditure on<br>education (% of GDP)              | 0.129         | 0.058                            | 0.013 – 0.246   | 2.233   | .031  | 43.578 | -0.182        | 0.062                            | -0.307 – -0.056 | -2.912  | .006  | 42.476  |
| Gini index                                              | 0.071         | 0.053                            | -0.037 – 0.178  | 1.323   | .192  | 46.105 | 0.009         | 0.058                            | -0.107 – 0.125  | 0.162   | .872  | 44.697  |
| Science literacy (PISA)                                 | 0.156         | 0.06                             | 0.037 – 0.276   | 2.62    | .012  | 51.3   | -0.064        | 0.064                            | -0.192 – 0.064  | -1.001  | .322  | 48.994  |
| Academic freedom                                        | -0.064        | 0.057                            | -0.180 – 0.051  | -1.125  | .266  | 46.417 | 0.128         | 0.062                            | 0.004 – 0.252   | 2.079   | .043  | 45.033  |
| Degree of populism in<br>politics                       | 0.068         | 0.052                            | -0.036 – 0.173  | 1.311   | .196  | 47.319 | -0.133        | 0.056                            | -0.245 – -0.020 | -2.376  | .022  | 45.606  |
| <b>Random Effects</b>                                   |               |                                  |                 |         |       |        |               |                                  |                 |         |       |         |
| $\sigma^2$                                              | 1.04          |                                  |                 |         |       |        | 1.31          |                                  |                 |         |       |         |
| $\tau_{00}$                                             | 0.17          | COUNTRY_NAME                     |                 |         |       |        | 0.16          | COUNTRY_NAME                     |                 |         |       |         |
| $\tau_{11}$                                             | 0.02          | COUNTRY_NAME.TRUST_SCI_m_z_grp   |                 |         |       |        | 0.01          | COUNTRY_NAME.TRUST_SCI_m_z_grp   |                 |         |       |         |
|                                                         | 0.01          | COUNTRY_NAME.SCIPOP_goertz_z_grp |                 |         |       |        | 0.00          | COUNTRY_NAME.SCIPOP_goertz_z_grp |                 |         |       |         |
| $\rho_{01}$                                             | -0.68         |                                  |                 |         |       |        | -0.57         |                                  |                 |         |       |         |
|                                                         | 0.19          |                                  |                 |         |       |        | -0.48         |                                  |                 |         |       |         |
| ICC                                                     | 0.15          |                                  |                 |         |       |        | 0.12          |                                  |                 |         |       |         |
| N                                                       | 51            | COUNTRY_NAME                     |                 |         |       |        | 51            | COUNTRY_NAME                     |                 |         |       |         |
| Observations                                            | 41586         |                                  |                 |         |       |        | 41586         |                                  |                 |         |       |         |
| Marginal R <sup>2</sup> / Conditional<br>R <sup>2</sup> | 0.155 / 0.282 |                                  |                 |         |       |        | 0.132 / 0.234 |                                  |                 |         |       |         |
| AIC                                                     | 153149.198    |                                  |                 |         |       |        | 162702.628    |                                  |                 |         |       |         |

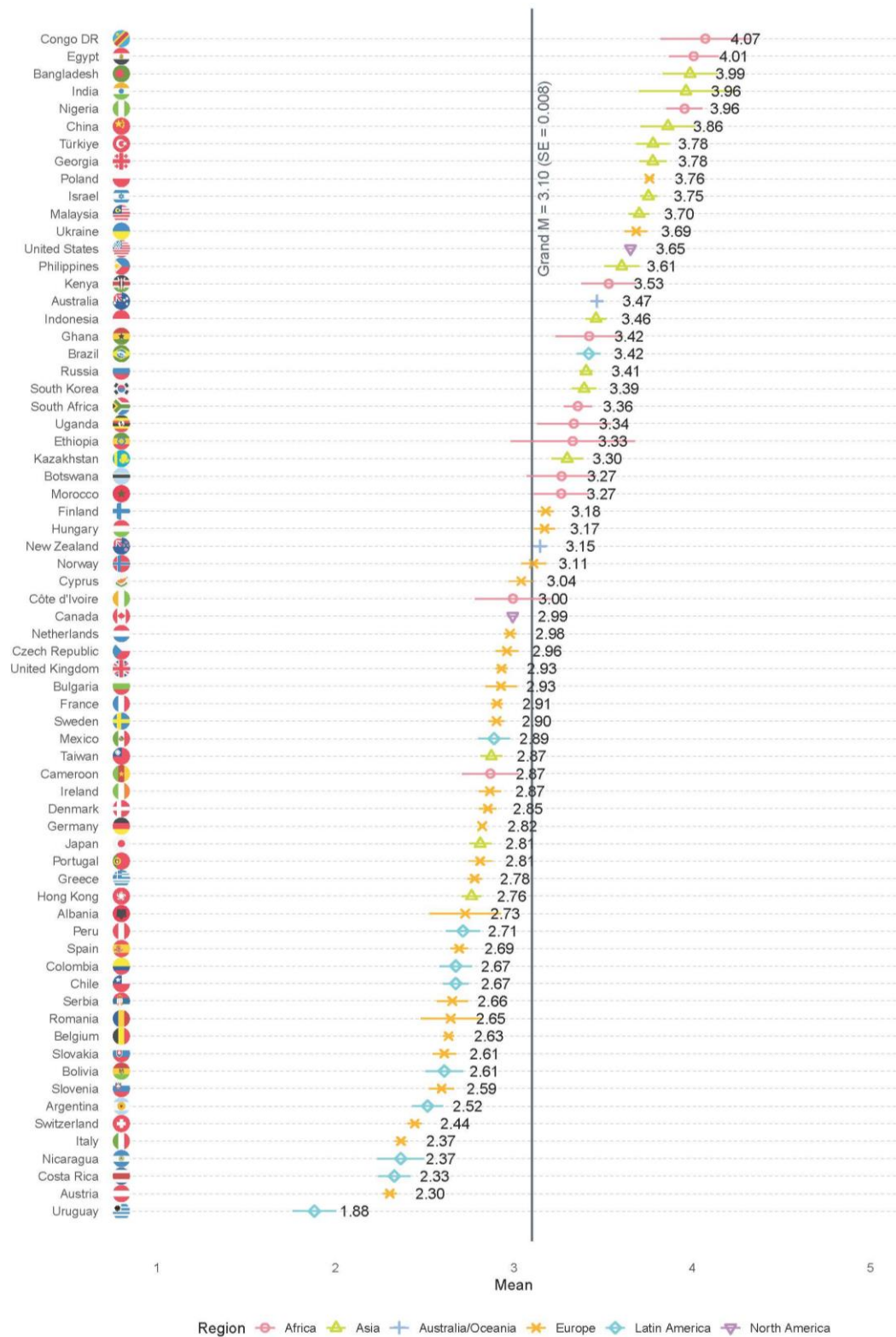
*Note:* Significant testing based on two-sided t tests. AIC = Akaike information criterion, ICC = Intraclass Correlation Coefficient.  $\sigma^2$  = within-country (residual) variance.  $\tau_{00}$  = between-country variance (variation between individual intercepts and average intercept).  $\tau_{11}$  = random slope variance (variation between individual slopes and average slope).  $\rho_{01}$  = random intercept-slope correlation.

**Table S6. Weighted linear multilevel regressions predicting trust in scientists with perceptions that science's efforts to tackle four goals (i.e., perceived priorities) exceed expectations for scientists to prioritize these goals (i.e., desired priorities; random effects of perceived-desired discrepancy scores and science-related populist attitudes across countries).**

| <i>Predictors</i>                                    | <b>Trust in scientists</b> |           |                 |          |          |           |
|------------------------------------------------------|----------------------------|-----------|-----------------|----------|----------|-----------|
|                                                      | <i>Beta</i>                | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                                            | 3.611                      | 0.031     | 3.549 – 3.673   | 117.379  | <.001    | 43.389    |
| Improve public health                                | 0.064                      | 0.007     | 0.051 – 0.078   | 9.713    | <.001    | 32.91     |
| Solve energy problems                                | 0.024                      | 0.005     | 0.013 – 0.035   | 4.523    | <.001    | 30.71     |
| Reduce poverty                                       | 0.064                      | 0.007     | 0.050 – 0.078   | 9.499    | <.001    | 31.692    |
| Develop defense and military technology              | -0.052                     | 0.006     | -0.063 – -0.040 | -9.194   | <.001    | 34.988    |
| Science-related populist attitudes                   | -0.022                     | 0.007     | -0.036 – -0.008 | -3.134   | .003     | 39.334    |
| Gender (male)                                        | -0.022                     | 0.002     | -0.027 – -0.017 | -9.116   | <.001    | 41402.87  |
| Age                                                  | 0.012                      | 0.002     | 0.008 – 0.017   | 5.506    | <.001    | 41407.11  |
| Education (tertiary)                                 | -0.011                     | 0.002     | -0.016 – -0.006 | -4.5     | <.001    | 41425.01  |
| Income                                               | 0.007                      | 0.002     | 0.002 – 0.012   | 2.963    | .003     | 41401.14  |
| Residence place (urban)                              | 0.012                      | 0.002     | 0.008 – 0.017   | 5.218    | <.001    | 41401.07  |
| Political orientation (right)                        | -0.007                     | 0.003     | -0.012 – -0.001 | -2.307   | .021     | 41430.84  |
| Political orientation (conservative)                 | -0.008                     | 0.003     | -0.013 – -0.002 | -2.611   | .009     | 41422.25  |
| Religiosity                                          | 0.041                      | 0.003     | 0.036 – 0.046   | 16.406   | <.001    | 41411.34  |
| Social dominance orientation                         | -0.043                     | 0.003     | -0.048 – -0.038 | -16.496  | <.001    | 41383.65  |
| Perceived benefit of science                         | 0.128                      | 0.003     | 0.122 – 0.133   | 44.466   | <.001    | 41321.43  |
| Willingness to be vulnerable to science              | 0.185                      | 0.003     | 0.179 – 0.191   | 63.77    | <.001    | 41419.08  |
| Trust in the scientific method                       | 0.175                      | 0.003     | 0.170 – 0.181   | 60.632   | <.001    | 41409.59  |
| GDP per capita                                       | 0.025                      | 0.04      | -0.055 – 0.105  | 0.626    | .534     | 42.03     |
| Gvt expenditure on education (% of GDP)              | 0.047                      | 0.034     | -0.022 – 0.117  | 1.376    | .176     | 43.245    |
| Gini index                                           | 0.1                        | 0.032     | 0.036 – 0.164   | 3.167    | .003     | 43.491    |
| Science literacy (PISA)                              | 0.018                      | 0.034     | -0.051 – 0.088  | 0.529    | .600     | 45.877    |
| Academic freedom                                     | -0.004                     | 0.034     | -0.072 – 0.064  | -0.113   | .911     | 43.556    |
| Degree of populism in politics                       | -0.015                     | 0.03      | -0.076 – 0.047  | -0.479   | .634     | 44.065    |
| <b>Random Effects</b>                                |                            |           |                 |          |          |           |
| $\sigma^2$                                           | 0.15                       |           |                 |          |          |           |
| $\tau_{00}$                                          | 0.04                       |           |                 |          |          |           |
| $\tau_{11}$                                          | 0                          |           |                 |          |          |           |
| $\tau_{11}$                                          | 0                          |           |                 |          |          |           |
| $\tau_{11}$                                          | 0                          |           |                 |          |          |           |
| $\tau_{11}$                                          | 0                          |           |                 |          |          |           |
| $\tau_{11}$                                          | 0                          |           |                 |          |          |           |
| $\rho_{01}$                                          | -0.11                      |           |                 |          |          |           |
|                                                      | -0.08                      |           |                 |          |          |           |
|                                                      | -0.34                      |           |                 |          |          |           |
|                                                      | 0.04                       |           |                 |          |          |           |
|                                                      | -0.09                      |           |                 |          |          |           |
| ICC                                                  | 0.24                       |           |                 |          |          |           |
| N_COUNTRY_NAME                                       | 51                         |           |                 |          |          |           |
| Observations                                         | 41534                      |           |                 |          |          |           |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup> | 0.481 / 0.607              |           |                 |          |          |           |
| AIC                                                  | 72552.404                  |           |                 |          |          |           |

*Note:* Significant testing based on two-sided t tests.

**Fig. S17. Weighted means and standard errors of desired priority for developing defence and military technology across countries.**



*Note:* Error bars means +/- standard error. Vertical line indicates the grand mean. Total  $N = 69,429$ . Country  $N$ s range between 310 and 8,005 (see table S20 for a detailed overview).

**Table S7. Weighted zero-order correlations of trust in scientists with perceived research priorities.**

|                                               | Trust in<br>scientists | Improve<br>public<br>health | Solve<br>energy<br>problems | Reduce<br>poverty | Develop<br>defence and<br>military<br>technology |
|-----------------------------------------------|------------------------|-----------------------------|-----------------------------|-------------------|--------------------------------------------------|
| Trust in scientists                           | 1                      |                             |                             |                   |                                                  |
| Improve public<br>health                      | .47                    | 1                           |                             |                   |                                                  |
| Solve energy<br>problems                      | .42                    | .64                         | 1                           |                   |                                                  |
| Reduce poverty                                | .40                    | .52                         | .51                         | 1                 |                                                  |
| Develop defence<br>and military<br>technology | .14                    | .14                         | .22                         | .10               | 1                                                |

*Note:* Estimates are based on post-stratification weights accounting for unequal selection probabilities across countries, genders, age groups, and education levels. All values significant at  $p < .001$  (two-sided t tests).

**Table S8. Weighted zero-order correlations of trust in scientists with desired research priorities.**

|                                            | Trust in<br>scientists | Improve<br>public<br>health | Solve<br>energy<br>problems | Reduce<br>poverty | Develop<br>defence<br>and<br>military<br>technology |
|--------------------------------------------|------------------------|-----------------------------|-----------------------------|-------------------|-----------------------------------------------------|
| Trust in scientists                        | 1                      |                             |                             |                   |                                                     |
| Improve public health                      | .21                    | 1                           |                             |                   |                                                     |
| Solve energy problems                      | .23                    | .44                         | 1                           |                   |                                                     |
| Reduce poverty                             | .14                    | .42                         | .37                         | 1                 |                                                     |
| Develop defence and<br>military technology | .22                    | .08                         | .10                         | .12               | 1                                                   |

*Note:* Estimates are based on post-stratification weights accounting for unequal selection probabilities across countries, genders, age groups, and education levels. All values significant at  $p < .001$  (two-sided t tests).



## Sensitivity tests for different trust measures

Our study relies on a multidimensional measure for trust in scientists that is based on established theoretical assumptions and existing empirical analyses<sup>48</sup> suggesting that trust in scientists is a multidimensional construct consisting of four components of trust perceptions, i.e., competence, integrity, benevolence, and openness.

We applied several procedures to ensure that the scale captures these four dimensions and thus accurately reflects the latent construct “trust in scientists” as conceptualized in the relevant literature<sup>48</sup>. We validated the scale in a pretest in the United States ( $n = 401$ , October 2022). Then, we confirmed the theoretical assumptions underlying the scale, showing that the 12 items largely map onto the four theoretical dimensions and form four stable factors. Albeit limited cross-country measurement invariance, we find high scale reliability across all countries as well as globally (see the associated publication<sup>38</sup>, which provides a detailed description of the TISP dataset as well as psychometric analyses and measurement performance tests of key measures, including the scale measuring trust in scientists).

Other measures used to assess trust in science and scientists include the commonly used 1-item measures asking people to indicate their “confidence that scientists act in the best interests of the public”<sup>39</sup> and measures of trust in the scientific method. These 1-item measures have been criticized as they arguably capture only single aspects of trust in scientists: The confidence measure, for example, primarily addresses people’s perceptions of scientists’ benevolence, whereas the trust-in-methods measure does not refer to the trustworthiness of scientists but to the reliability of their work. However, these 1-item measures are still commonly used<sup>25</sup> and may be valid and useful alternatives to multi-item measures<sup>95</sup>. Hence, we included the 1-item confidence measure as well as the trust-in-methods measure in the questionnaire and re-ran the analyses underlying Figure 1, Figure 2, and table S2 (see fig. S19-S20 as well as tables S8 and S9). We also provide detailed descriptive statistics ( $M$ ,  $Me$ ,  $SE$ ,  $SD$ ; table S1) as well as zero-order correlations (table S7) of the 12-item trust measure, the confidence measure, the trust-in-methods measure, all 12 individual items measuring trust in scientists and the four dimensions of the 12-item measure. Additionally, we re-ran the analyses underlying Figure 1 for all four-dimension scores as well as the confidence and the trust-in-method measure (fig. S13-S18).

We find that the grand mean of our 12-item trust in scientists measure ( $M = 3.62$ ,  $SE < 0.001$ ) and, as expected, the perceptions of scientists’ benevolence measure ( $M = 3.55$ ,  $SE = 0.01$ ) to be very close to the grand mean of the commonly used 1-item measure of confidence in scientists ( $M = 3.57$ ,  $SE = 0.01$ ), and find some differences across countries which is plausible given that the “confidence in scientists to act in the public interest” measure only captures one component of trust in scientists (e.g., benevolence). The differences in means of the four components of the 12-item trust in scientists measure (i.e., competence, benevolence, integrity, openness) across countries (fig. S13-S16), further highlight the importance of distinguishing between different dimensions of trustworthiness when assessing perceptions of scientists. Given this evidence, as well its high alpha and omega reliability and the results of our factor analyses, we conclude that our trust in scientists measure is a valid measure to assess trust in scientists given that it reflects the results of the 1-item measure but additionally adds nuance to understand underlying trustworthiness dimensions.

**Table S9. Weighted zero-order correlations of trust index with other trust measures and dimension scores**

|                                                                                                     | <b>Trust in<br/>scientists<br/>(12-item<br/>index)</b> | <b>Confidence<br/>that<br/>scientists act<br/>in the best<br/>interests of<br/>the public</b> | <b>Trust in the<br/>scientific<br/>method</b> |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Trust in scientists (12-item index)</b>                                                          | 1                                                      |                                                                                               |                                               |
| <b>Confidence that scientists act in the best interests of the public</b>                           | 0.71                                                   | 1                                                                                             |                                               |
| <b>Trust in the scientific method</b>                                                               | 0.47                                                   | 0.48                                                                                          | 1                                             |
| <b>Competence</b>                                                                                   | 0.81                                                   | 0.54                                                                                          | 0.44                                          |
| <b>Integrity</b>                                                                                    | 0.91                                                   | 0.66                                                                                          | 0.43                                          |
| <b>Benevolence</b>                                                                                  | 0.91                                                   | 0.66                                                                                          | 0.41                                          |
| <b>Openness</b>                                                                                     | 0.88                                                   | 0.63                                                                                          | 0.39                                          |
| How expert or inexperienced are most scientists?                                                    | 0.67                                                   | 0.44                                                                                          | 0.34                                          |
| How intelligent or unintelligent are most scientists?                                               | 0.66                                                   | 0.43                                                                                          | 0.38                                          |
| How qualified or unqualified are most scientists when it comes to conducting high-quality research? | 0.71                                                   | 0.47                                                                                          | 0.38                                          |
| How honest or dishonest are most scientists?                                                        | 0.76                                                   | 0.55                                                                                          | 0.36                                          |
| How ethical or unethical are most scientists?                                                       | 0.77                                                   | 0.54                                                                                          | 0.36                                          |
| How sincere or insincere are most scientists?                                                       | 0.81                                                   | 0.60                                                                                          | 0.38                                          |
| How concerned or not concerned are most scientists about people's well-being?                       | 0.76                                                   | 0.55                                                                                          | 0.34                                          |
| How eager or uneager are most scientists to improve others' lives?                                  | 0.78                                                   | 0.57                                                                                          | 0.37                                          |
| How considerate or inconsiderate are most scientists of others' interests?                          | 0.78                                                   | 0.57                                                                                          | 0.35                                          |
| How open are most scientists to feedback?                                                           | 0.73                                                   | 0.50                                                                                          | 0.32                                          |
| How willing or unwilling are most scientists to be transparent?                                     | 0.77                                                   | 0.55                                                                                          | 0.35                                          |
| How much or little attention do scientists pay to others' views?                                    | 0.73                                                   | 0.54                                                                                          | 0.33                                          |

*Note:* Estimates are based on post-stratification weights accounting for unequal selection probabilities across countries, genders, age groups, and education levels. All values significant at  $p < .001$  (two-sided t tests).

**Table S10. Weighted linear multilevel regression explaining confidence in scientists to act in public interest**

| <i>Predictors</i>                       | <b>Block 1: Demographic characteristics</b> |           |                |          |          |           | <b>Block 2: Ideological views</b> |           |                 |          |          |           |
|-----------------------------------------|---------------------------------------------|-----------|----------------|----------|----------|-----------|-----------------------------------|-----------|-----------------|----------|----------|-----------|
|                                         | <i>Beta</i>                                 | <i>SE</i> | <i>CI</i>      | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>                       | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                               | 3.636                                       | 0.042     | 3.552 – 3.720  | 86.185   | <.001    | 63.58     | 3.679                             | 0.04      | 3.599 – 3.760   | 91.548   | <.001    | 60.67     |
| Gender (male)                           | 0.006                                       | 0.004     | -0.002 – 0.014 | 1.436    | .151     | 64373.73  | 0.010                             | 0.005     | 0.001 – 0.018   | 2.103    | .035     | 47589.03  |
| Age                                     | 0.015                                       | 0.004     | 0.008 – 0.022  | 4.009    | <.001    | 64415.89  | -0.005                            | 0.004     | -0.013 – 0.004  | -1.115   | .265     | 47632.04  |
| Education (tertiary)                    | 0.045                                       | 0.004     | 0.036 – 0.053  | 10.531   | <.001    | 63667.53  | 0.042                             | 0.005     | 0.033 – 0.051   | 8.969    | <.001    | 46916.14  |
| Income                                  | 0.037                                       | 0.004     | 0.029 – 0.045  | 9.148    | <.001    | 64381.78  | 0.023                             | 0.005     | 0.014 – 0.032   | 5.013    | <.001    | 47593.04  |
| Residence place (urban)                 | 0.038                                       | 0.004     | 0.030 – 0.046  | 9.742    | <.001    | 64369.88  | 0.039                             | 0.004     | 0.030 – 0.048   | 8.793    | <.001    | 47587.87  |
| Political orientation (right)           |                                             |           |                |          |          |           | -0.005                            | 0.005     | -0.015 – 0.006  | -0.914   | .361     | 47591.98  |
| Political orientation (conservative)    |                                             |           |                |          |          |           | -0.042                            | 0.005     | -0.053 – -0.032 | -7.842   | <.001    | 47595.47  |
| Religiosity                             |                                             |           |                |          |          |           | 0.056                             | 0.005     | 0.046 – 0.065   | 11.943   | <.001    | 47590.72  |
| Social dominance orientation            |                                             |           |                |          |          |           | -0.113                            | 0.005     | -0.122 – -0.103 | -24.179  | <.001    | 47597.5   |
| Science-related populist attitudes      |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |
| Perceived benefit of science            |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |
| Willingness to be vulnerable to science |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |
| Trust in the scientific method          |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |
| GDP per capita                          |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |
| Gvt expenditure on education (% of GDP) |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |
| Gini index                              |                                             |           |                |          |          |           |                                   |           |                 |          |          |           |

Science literacy (PISA)  
Academic freedom  
Degree of populism in  
politics

**Random Effects**

|                                                         |                   |                   |
|---------------------------------------------------------|-------------------|-------------------|
| $\sigma^2$                                              | 0.61              | 0.57              |
| $\tau_{00}$                                             | 0.12 COUNTRY_NAME | 0.10 COUNTRY_NAME |
| ICC                                                     | 0.16              | 0.15              |
| N                                                       | 68 COUNTRY_NAME   | 67 COUNTRY_NAME   |
| Observations                                            | 64442             | 47657             |
| Marginal R <sup>2</sup> /<br>Conditional R <sup>2</sup> | 0.008 / 0.166     | 0.032 / 0.179     |
| AIC                                                     | 223462.948        | 160765.649        |

Table S10. Continued

| <i>Predictors</i>                       | <b>Block 3: Attitudes to science</b> |           |                 |          |          |           | <b>Block 4: Country indicators</b> |           |                 |          |          |           |
|-----------------------------------------|--------------------------------------|-----------|-----------------|----------|----------|-----------|------------------------------------|-----------|-----------------|----------|----------|-----------|
|                                         | <i>Beta</i>                          | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>                        | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                               | 3.595                                | 0.039     | 3.517 – 3.672   | 92.762   | <.001    | 60.936    | 3.536                              | 0.037     | 3.461 – 3.611   | 95.036   | <.001    | 41.94     |
| Gender (male)                           | -0.010                               | 0.004     | -0.017 – -0.003 | -2.712   | .007     | 46627.87  | -0.012                             | 0.004     | -0.019 – -0.004 | -2.983   | .003     | 41565.18  |
| Age                                     | -0.020                               | 0.003     | -0.027 – -0.013 | -5.787   | <.001    | 46663.34  | -0.02                              | 0.004     | -0.027 – -0.013 | -5.482   | <.001    | 41584.54  |
| Education (tertiary)                    | -0.024                               | 0.004     | -0.031 – -0.016 | -6.120   | <.001    | 46333.10  | -0.024                             | 0.004     | -0.032 – -0.016 | -5.907   | <.001    | 41587.7   |
| Income                                  | -0.006                               | 0.004     | -0.013 – 0.002  | -1.514   | .130     | 46631.10  | -0.004                             | 0.004     | -0.011 – 0.004  | -0.895   | .371     | 41563.41  |
| Residence place<br>(urban)              | 0.015                                | 0.004     | 0.008 – 0.022   | 4.072    | <.001    | 46627.18  | 0.016                              | 0.004     | 0.009 – 0.024   | 4.245    | <.001    | 41562.48  |
| Political orientation<br>(right)        | -0.002                               | 0.004     | -0.010 – 0.007  | -0.384   | .701     | 46629.92  | -0.002                             | 0.005     | -0.012 – 0.007  | -0.525   | .600     | 41564.22  |
| Political orientation<br>(conservative) | -0.002                               | 0.004     | -0.011 – 0.006  | -0.515   | .607     | 46633.20  | -0.006                             | 0.005     | -0.015 – 0.003  | -1.242   | .214     | 41563.12  |
| Religiosity                             | 0.06                                 | 0.004     | 0.053 – 0.068   | 15.554   | <.001    | 46629.22  | 0.06                               | 0.004     | 0.052 – 0.068   | 14.681   | <.001    | 41563.73  |

|                                                      |               |              |                 |         |                 |          |               |              |                 |         |                 |          |
|------------------------------------------------------|---------------|--------------|-----------------|---------|-----------------|----------|---------------|--------------|-----------------|---------|-----------------|----------|
| Social dominance orientation                         | 0.013         | 0.004        | 0.005 – 0.021   | 3.28    | <b>.001</b>     | 46634.39 | 0.014         | 0.004        | 0.006 – 0.022   | 3.342   | <b>.001</b>     | 41565.78 |
| Science-related populist attitudes                   | -0.063        | 0.004        | -0.070 – -0.055 | -16.048 | <b>&lt;.001</b> | 46627.18 | -0.062        | 0.004        | -0.070 – -0.054 | -14.993 | <b>&lt;.001</b> | 41563.42 |
| Perceived benefit of science                         | 0.212         | 0.004        | 0.203 – 0.221   | 48.423  | <b>&lt;.001</b> | 46634.55 | 0.21          | 0.005        | 0.201 – 0.219   | 45.496  | <b>&lt;.001</b> | 41565.14 |
| Willingness to be vulnerable to science              | 0.226         | 0.004        | 0.217 – 0.234   | 50.299  | <b>&lt;.001</b> | 46631.62 | 0.227         | 0.005        | 0.217 – 0.236   | 47.897  | <b>&lt;.001</b> | 41566.21 |
| Trust in the scientific method                       | 0.302         | 0.004        | 0.293 – 0.311   | 67.521  | <b>&lt;.001</b> | 46631.37 | 0.300         | 0.005        | 0.290 – 0.309   | 63.409  | <b>&lt;.001</b> | 41563.6  |
| GDP per capita                                       |               |              |                 |         |                 |          | 0.067         | 0.051        | -0.035 – 0.169  | 1.322   | .193            | 41.283   |
| Gvt expenditure on education (% of GDP)              |               |              |                 |         |                 |          | 0.035         | 0.044        | -0.053 – 0.124  | 0.808   | .423            | 42.379   |
| Gini index                                           |               |              |                 |         |                 |          | 0.016         | 0.04         | -0.064 – 0.097  | 0.410   | .684            | 42.187   |
| Science literacy (PISA)                              |               |              |                 |         |                 |          | -0.052        | 0.044        | -0.140 – 0.036  | -1.183  | .243            | 44.945   |
| Academic freedom                                     |               |              |                 |         |                 |          | -0.046        | 0.043        | -0.132 – 0.041  | -1.064  | .293            | 42.478   |
| Degree of populism in politics                       |               |              |                 |         |                 |          | -0.049        | 0.039        | -0.127 – 0.029  | -1.255  | .216            | 43.017   |
| <b>Random Effects</b>                                |               |              |                 |         |                 |          |               |              |                 |         |                 |          |
| $\sigma^2$                                           | 0.37          |              |                 |         |                 |          | 0.4           |              |                 |         |                 |          |
| $\tau_{00}$                                          | 0.09          | COUNTRY_NAME |                 |         |                 |          | 0.06          | COUNTRY_NAME |                 |         |                 |          |
| ICC                                                  | 0.2           |              |                 |         |                 |          | 0.13          |              |                 |         |                 |          |
| N                                                    | 66            | COUNTRY_NAME |                 |         |                 |          | 51            | COUNTRY_NAME |                 |         |                 |          |
| Observations                                         | 46701         |              |                 |         |                 |          | 41625         |              |                 |         |                 |          |
| Marginal R <sup>2</sup> / Conditional R <sup>2</sup> | 0.403 / 0.523 |              |                 |         |                 |          | 0.411 / 0.486 |              |                 |         |                 |          |
| AIC                                                  | 138635.961    |              |                 |         |                 |          | 113895.986    |              |                 |         |                 |          |

*Note:* Significant testing based on two-sided t tests. AIC = Akaike information criterion, ICC = Intraclass Correlation Coefficient.  $\sigma^2$  = within-country (residual) variance.  $\tau_{00}$  = between-country variance (variation between individual intercepts and average intercept).

**Table S11. Weighted linear multilevel regression explaining trust in the scientific method (random intercepts across countries)**

| <i>Predictors</i>                       | <b>Block 1: Demographic characteristics</b> |           |               |          |          |           | <b>Block 2: Ideological views</b> |           |                 |          |          |           |
|-----------------------------------------|---------------------------------------------|-----------|---------------|----------|----------|-----------|-----------------------------------|-----------|-----------------|----------|----------|-----------|
|                                         | <i>Beta</i>                                 | <i>SE</i> | <i>CI</i>     | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>                       | <i>SE</i> | <i>CI</i>       | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                               | 4.215                                       | 0.032     | 4.151 – 4.278 | 132.635  | <.001    | 65.09     | 4.254                             | 0.032     | 4.190 – 4.317   | 134.251  | <.001    | 62.014    |
| Gender (male)                           | 0.053                                       | 0.004     | 0.045 – 0.060 | 14.235   | <.001    | 64391.01  | 0.059                             | 0.004     | 0.051 – 0.068   | 14.269   | <.001    | 47600.32  |
| Age                                     | 0.03                                        | 0.003     | 0.023 – 0.037 | 8.744    | <.001    | 64440.69  | 0.021                             | 0.004     | 0.013 – 0.028   | 5.43     | <.001    | 47646.72  |
| Education (tertiary)                    | 0.067                                       | 0.004     | 0.059 – 0.075 | 17.044   | <.001    | 62557.91  | 0.065                             | 0.004     | 0.056 – 0.073   | 15.097   | <.001    | 46271.49  |
| Income                                  | 0.043                                       | 0.004     | 0.036 – 0.050 | 11.48    | <.001    | 64401     | 0.03                              | 0.004     | 0.021 – 0.038   | 6.944    | <.001    | 47604.36  |
| Residence place (urban)                 | 0.037                                       | 0.004     | 0.030 – 0.044 | 10.178   | <.001    | 64385.6   | 0.041                             | 0.004     | 0.033 – 0.049   | 10.101   | <.001    | 47598.59  |
| Political orientation (right)           |                                             |           |               |          |          |           | 0.014                             | 0.005     | 0.005 – 0.024   | 2.914    | .004     | 47603.75  |
| Political orientation (conservative)    |                                             |           |               |          |          |           | -0.04                             | 0.005     | -0.049 – -0.030 | -8.007   | <.001    | 47608.12  |
| Religiosity                             |                                             |           |               |          |          |           | -0.027                            | 0.004     | -0.036 – -0.019 | -6.352   | <.001    | 47602.24  |
| Social dominance orientation            |                                             |           |               |          |          |           | -0.144                            | 0.004     | -0.152 – -0.136 | -33.628  | <.001    | 47609.83  |
| Science-related populist attitudes      |                                             |           |               |          |          |           |                                   |           |                 |          |          |           |
| Perceived benefit of science            |                                             |           |               |          |          |           |                                   |           |                 |          |          |           |
| Willingness to be vulnerable to science |                                             |           |               |          |          |           |                                   |           |                 |          |          |           |
| GDP per capita                          |                                             |           |               |          |          |           |                                   |           |                 |          |          |           |
| Gvt expenditure on education (% of GDP) |                                             |           |               |          |          |           |                                   |           |                 |          |          |           |

Gini index  
 Science literacy  
 (PISA)  
 Academic freedom  
 Degree of  
 populism in  
 politics

**Random Effects**

|                                                         |                   |                   |
|---------------------------------------------------------|-------------------|-------------------|
| $\sigma^2$                                              | 0.53              | 0.48              |
| $\tau_{00}$                                             | 0.06 COUNTRY_NAME | 0.06 COUNTRY_NAME |
| ICC                                                     | 0.11              | 0.11              |
| N                                                       | 68 COUNTRY_NAME   | 67 COUNTRY_NAME   |
| Observations                                            | 64454             | 47663             |
| Marginal R <sup>2</sup> /<br>Conditional R <sup>2</sup> | 0.022 / 0.129     | 0.063 / 0.169     |
| AIC                                                     | 213890.768        | 152831.032        |

Table S11. Continued

| <i>Predictors</i>          | <b>Block 3: Attitudes to science</b> |           |               |          |          |           | <b>Block 4: Country-level indicators</b> |           |               |          |          |           |
|----------------------------|--------------------------------------|-----------|---------------|----------|----------|-----------|------------------------------------------|-----------|---------------|----------|----------|-----------|
|                            | <i>Beta</i>                          | <i>SE</i> | <i>CI</i>     | <i>t</i> | <i>p</i> | <i>df</i> | <i>Beta</i>                              | <i>SE</i> | <i>CI</i>     | <i>t</i> | <i>p</i> | <i>df</i> |
| Intercept                  | 4.182                                | 0.03      | 4.122 – 4.241 | 140.106  | <.001    | 61.68     | 4.107                                    | 0.027     | 4.053 – 4.161 | 152.886  | <.001    | 43.01     |
| Gender (male)              | 0.056                                | 0.004     | 0.049 – 0.063 | 15.581   | <.001    | 46642.75  | 0.057                                    | 0.004     | 0.049 – 0.064 | 14.879   | <.001    | 41577.56  |
| Age                        | 0.009                                | 0.003     | 0.003 – 0.016 | 2.749    | .006     | 46685.65  | 0.009                                    | 0.004     | 0.002 – 0.016 | 2.579    | .010     | 41601.7   |
| Education<br>(tertiary)    | 0.014                                | 0.004     | 0.007 – 0.021 | 3.711    | <.001    | 45662.82  | 0.015                                    | 0.004     | 0.008 – 0.023 | 3.915    | <.001    | 41468.48  |
| Income                     | 0.008                                | 0.004     | 0.000 – 0.015 | 2.073    | .038     | 46646.1   | 0.009                                    | 0.004     | 0.001 – 0.016 | 2.195    | .028     | 41574.49  |
| Residence place<br>(urban) | 0.025                                | 0.004     | 0.018 – 0.032 | 7.054    | <.001    | 46641.42  | 0.025                                    | 0.004     | 0.018 – 0.033 | 6.713    | <.001    | 41573.16  |

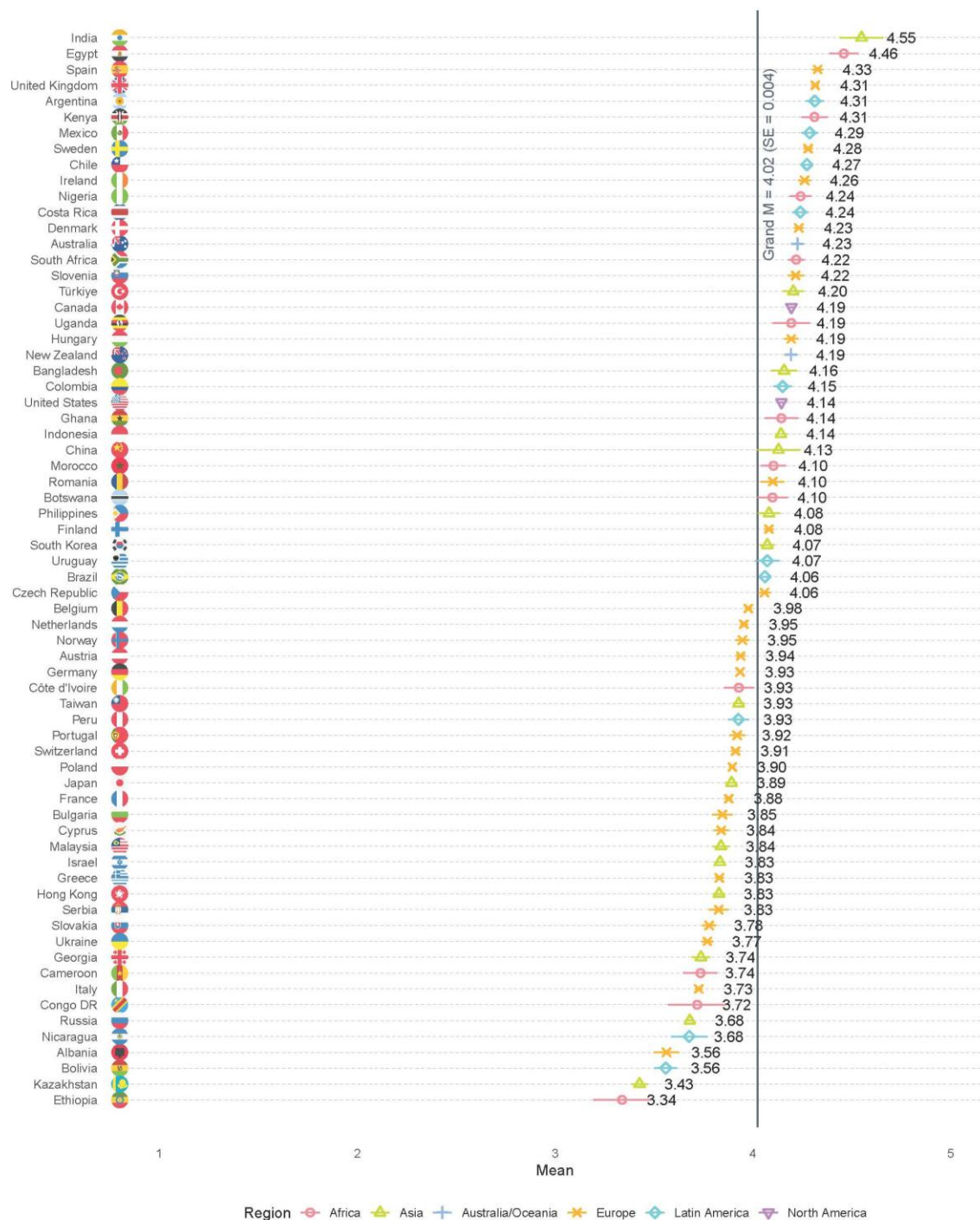


|                                         |        |              |                 |         |       |          |        |       |                 |         |       |          |
|-----------------------------------------|--------|--------------|-----------------|---------|-------|----------|--------|-------|-----------------|---------|-------|----------|
| Political orientation (right)           | 0.025  | 0.004        | 0.017 – 0.034   | 5.824   | <.001 | 46645.55 | 0.023  | 0.005 | 0.014 – 0.032   | 5.022   | <.001 | 41575.76 |
| Political orientation (conservative)    | -0.008 | 0.004        | -0.016 – 0.001  | -1.795  | .073  | 46650.15 | -0.007 | 0.005 | -0.016 – 0.002  | -1.516  | .129  | 41574.3  |
| Religiosity                             | -0.035 | 0.004        | -0.042 – -0.028 | -9.295  | <.001 | 46644.2  | -0.035 | 0.004 | -0.043 – -0.027 | -8.856  | <.001 | 41574.7  |
| Social dominance orientation            | -0.047 | 0.004        | -0.054 – -0.039 | -12.284 | <.001 | 46651.07 | -0.047 | 0.004 | -0.054 – -0.039 | -11.493 | <.001 | 41577.37 |
| Science-related populist attitudes      | -0.057 | 0.004        | -0.065 – -0.050 | -15.067 | <.001 | 46641.79 | -0.057 | 0.004 | -0.065 – -0.049 | -14.297 | <.001 | 41574.77 |
| Perceived benefit of science            | 0.217  | 0.004        | 0.209 – 0.225   | 52.677  | <.001 | 46652.77 | 0.218  | 0.004 | 0.210 – 0.227   | 49.982  | <.001 | 41577.58 |
| Willingness to be vulnerable to science | 0.342  | 0.004        | 0.334 – 0.350   | 84.341  | <.001 | 46645.07 | 0.344  | 0.004 | 0.335 – 0.352   | 80.087  | <.001 | 41577.08 |
| GDP per capita                          |        |              |                 |         |       |          | -0.052 | 0.036 | -0.126 – 0.021  | -1.44   | .157  | 41.986   |
| Gvt expenditure on education (% of GDP) |        |              |                 |         |       |          | 0.012  | 0.032 | -0.052 – 0.076  | 0.392   | .697  | 43.312   |
| Gini index                              |        |              |                 |         |       |          | 0.068  | 0.029 | 0.009 – 0.126   | 2.334   | .024  | 43.45    |
| Science literacy (PISA)                 |        |              |                 |         |       |          | -0.021 | 0.032 | -0.085 – 0.044  | -0.65   | .519  | 47.938   |
| Academic freedom                        |        |              |                 |         |       |          | 0.018  | 0.031 | -0.045 – 0.080  | 0.577   | .567  | 44.008   |
| Degree of populism in politics          |        |              |                 |         |       |          | 0.01   | 0.028 | -0.047 – 0.066  | 0.343   | .733  | 45.051   |
| <b>Random Effects</b>                   |        |              |                 |         |       |          |        |       |                 |         |       |          |
| $\sigma^2$                              | 0.35   |              |                 |         |       |          |        | 0.38  |                 |         |       |          |
| $\tau_{00}$                             | 0.05   | COUNTRY_NAME |                 |         |       |          |        | 0.03  | COUNTRY_NAME    |         |       |          |
| ICC                                     | 0.13   |              |                 |         |       |          |        | 0.07  |                 |         |       |          |

| N                                                       | 66 COUNTRY_NAME | 51 COUNTRY_NAME |
|---------------------------------------------------------|-----------------|-----------------|
| Observations                                            | 46709           | 41631           |
| Marginal R <sup>2</sup> /<br>Conditional R <sup>2</sup> | 0.363 / 0.448   | 0.371 / 0.417   |
| AIC                                                     | 135853.157      | 111665.054      |

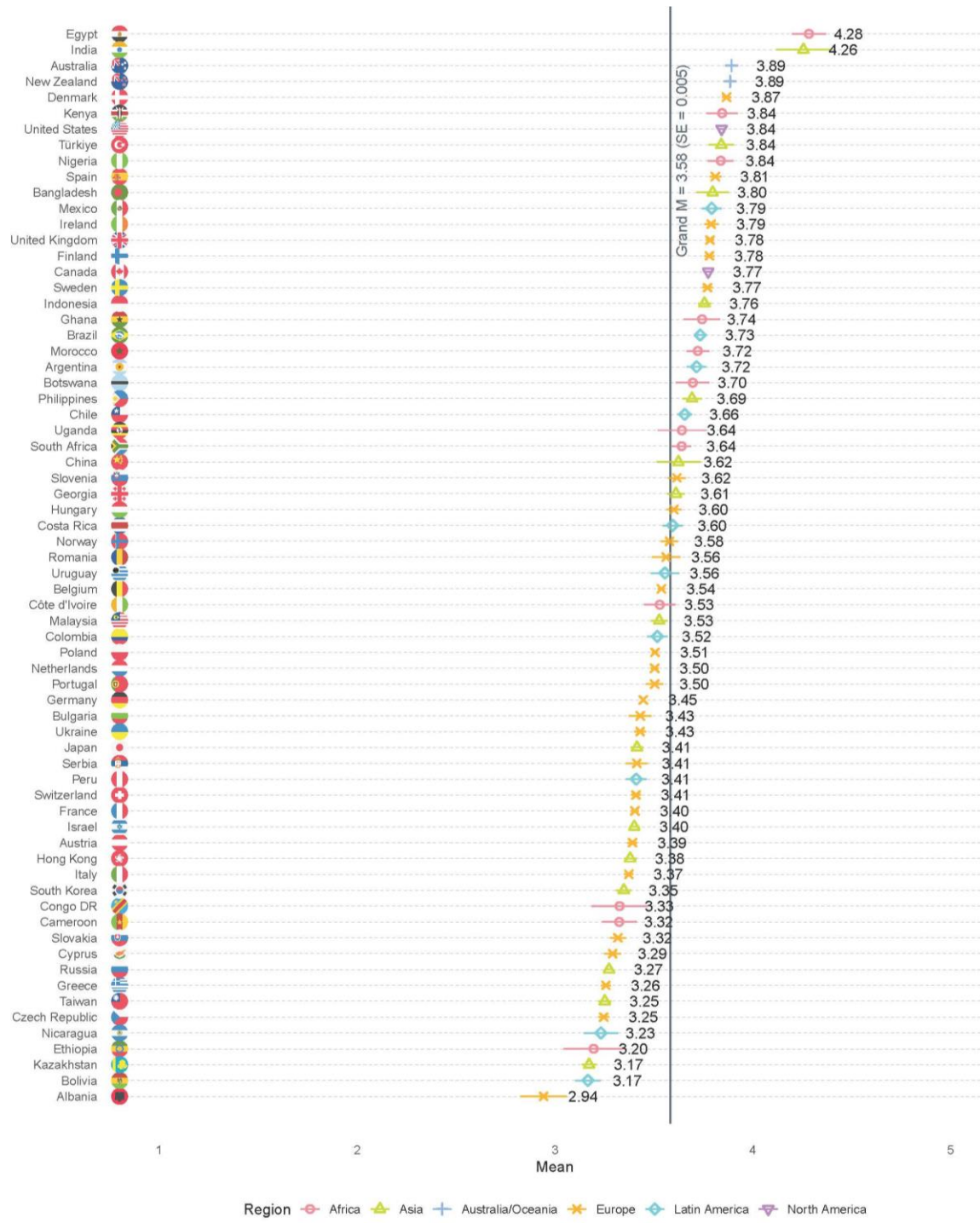
*Note:* Significant testing based on two-sided t tests. AIC = Akaike information criterion, ICC = Intraclass Correlation Coefficient.  $\sigma^2$  = within-country (residual) variance.  $\tau_{00}$  = between-country variance (variation between individual intercepts and average intercept).

**Fig. S18. Weighted means and standard errors of competence dimension of trust in scientists across countries**



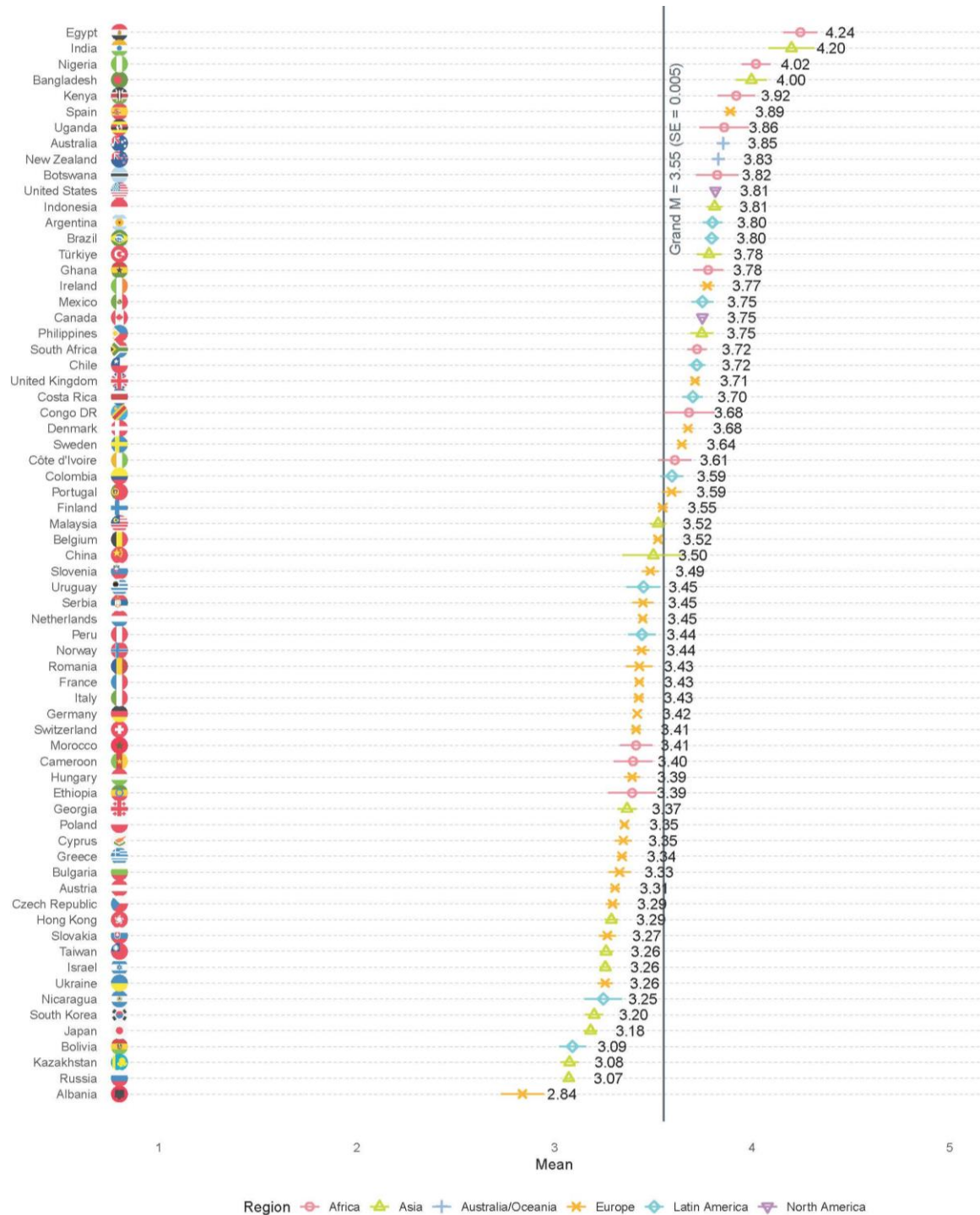
*Note:* Error bars means  $\pm$  standard error. Vertical line indicates the grand mean. Total  $N = 69,526$ . Country  $N$ s range between 312 and 8,011 (see table S20 for a detailed overview).

**Fig. S19. Weighted means and standard errors of integrity dimension of trust in scientists across countries**



*Note:* Error bars means  $\pm$  standard error. Vertical line indicates the grand mean. Total  $N = 69,526$ . Country  $N$ s range between 312 and 8,011 (see table S20 for a detailed overview).

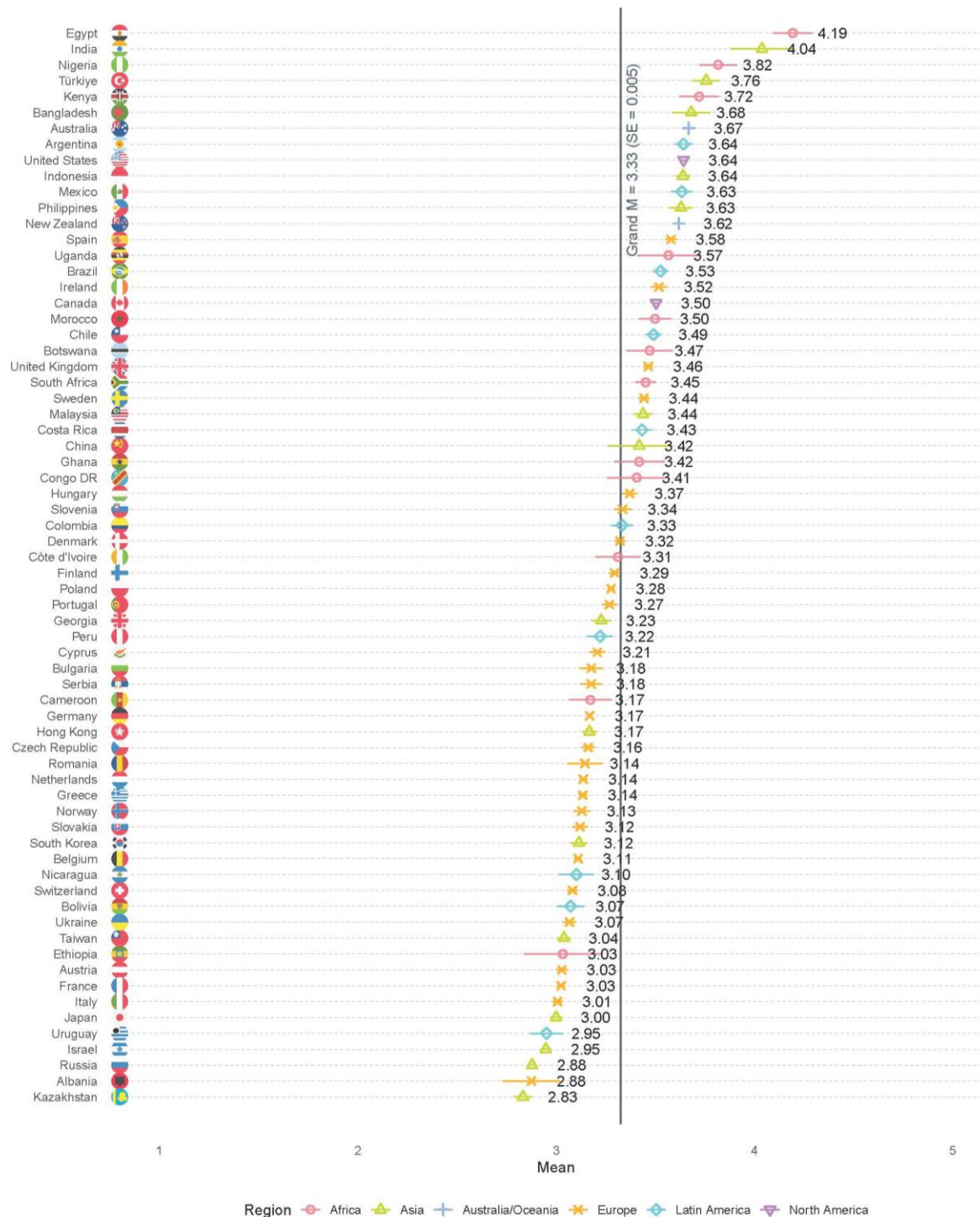
**Fig. S20. Weighted means and standard errors of benevolence dimension of trust in scientists across countries**



*Note:* Error bars means  $\pm$  standard error. Vertical line indicates the grand mean. Total  $N = 69,522$ . Country  $N$ s range between 311 and 8,011 (see table S20 for a detailed overview).

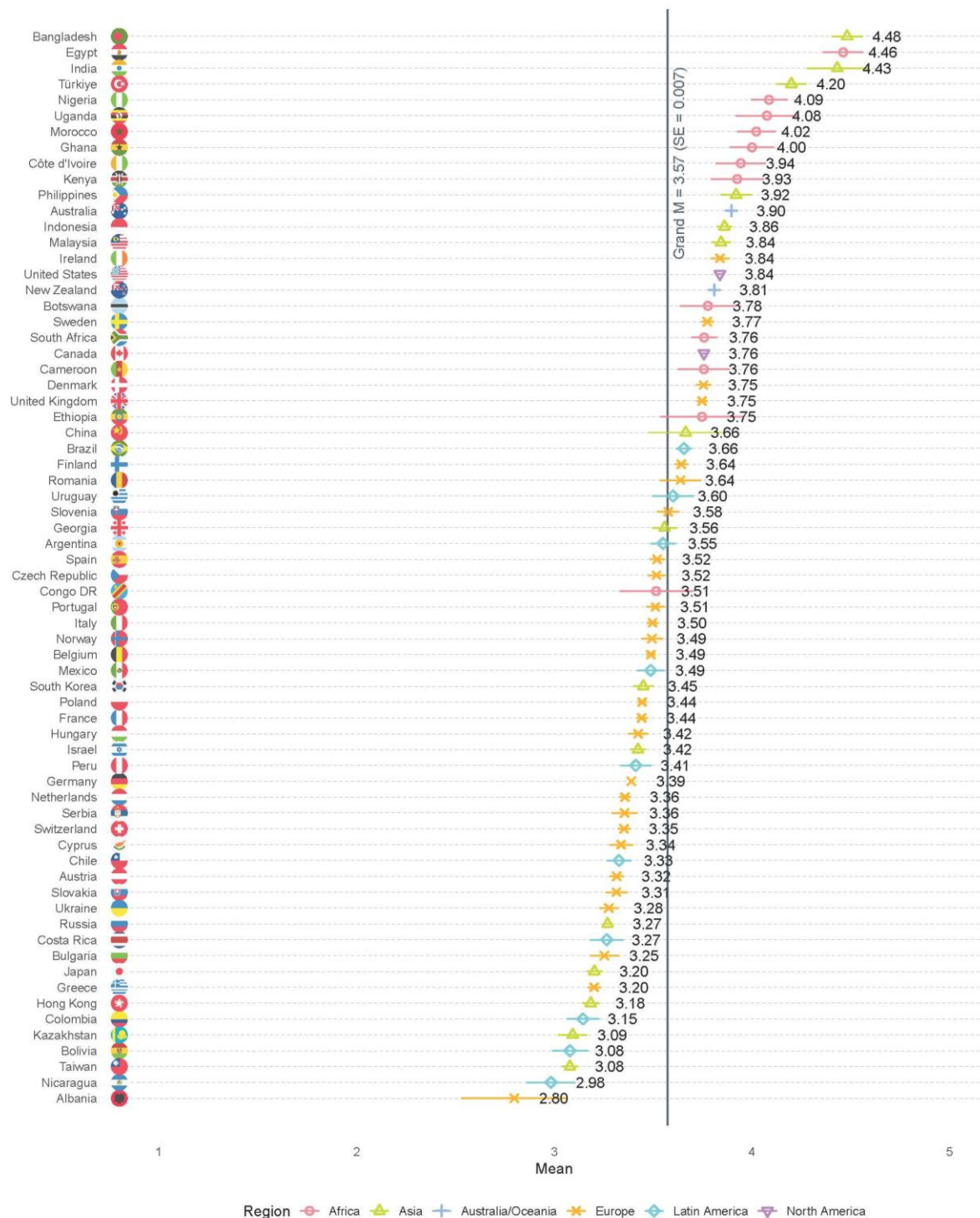


**Fig. S21. Weighted means and standard errors of openness dimension of trust in scientists across countries**



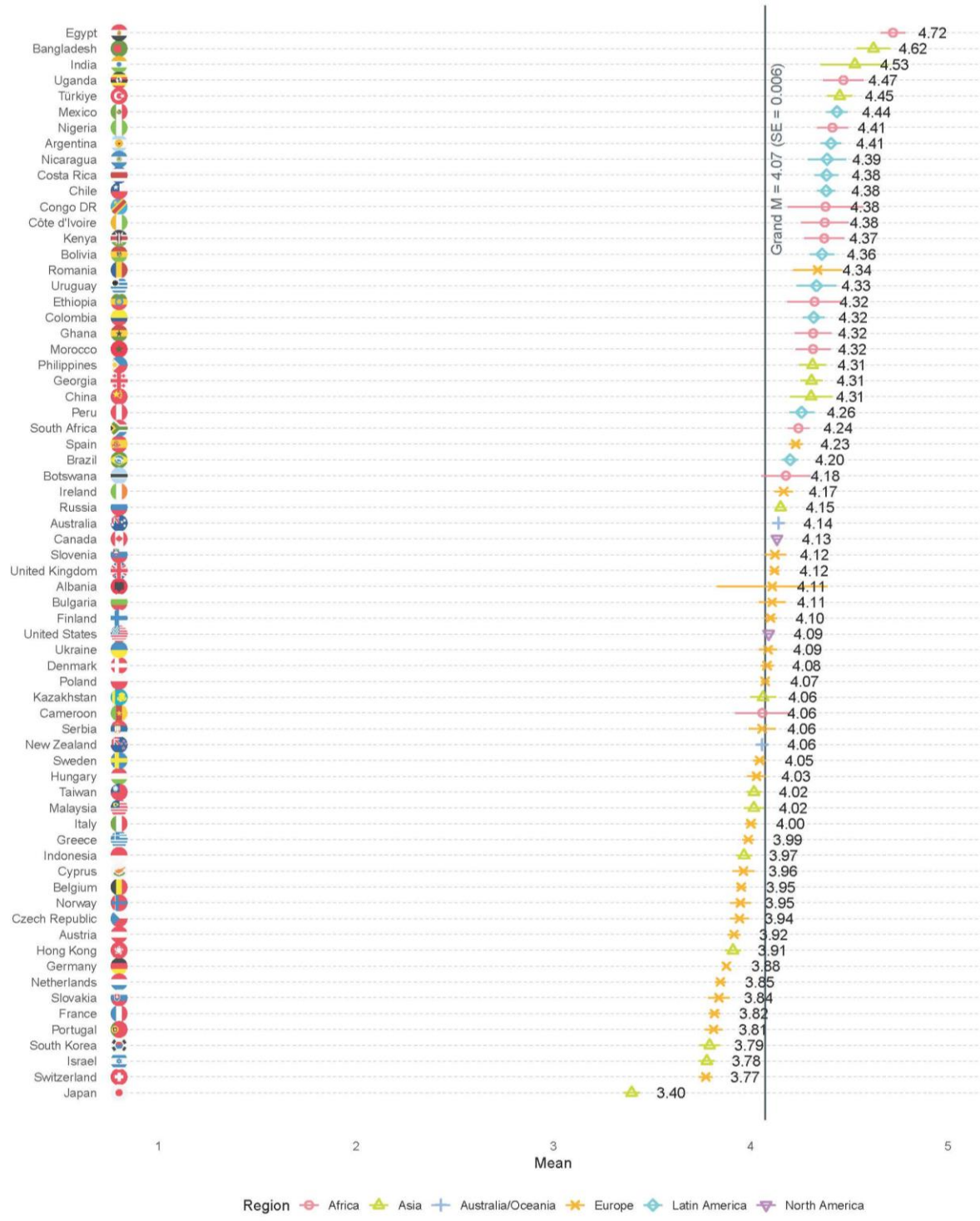
*Note:* Error bars means  $\pm$  standard error. Vertical line indicates the grand mean. Total  $N = 69,523$ . Country  $N$ s range between 311 and 8,011(see able S20 for a detailed overview).

**Fig. S22. Weighted means and standard errors of confidence that scientists act in public interests across countries**



*Note:* Error bars means +/- standard error. Vertical line indicates the grand mean. Total  $N = 69,507$ . Country  $N$ s range between 312 and 8,012 (see table S20 for a detailed overview).

**Fig. S23. Weighted means and standard errors of trust in the scientific method across countries**

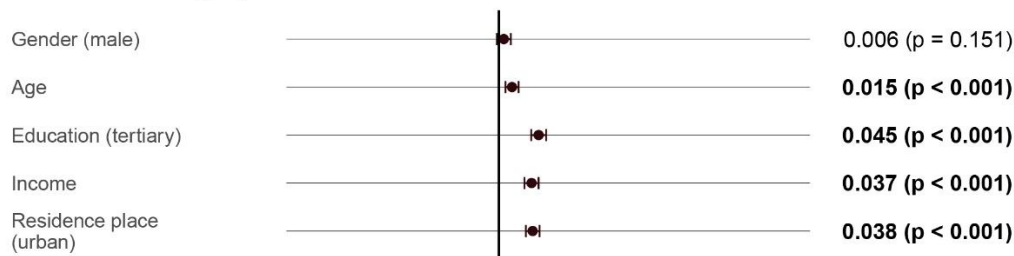


*Note:* Error bars means  $\pm$  standard error. Vertical line indicates the grand mean. Total  $N = 69,521$ . Country  $N$ s range between 312 and 8,011 (see table S20 for a detailed overview).

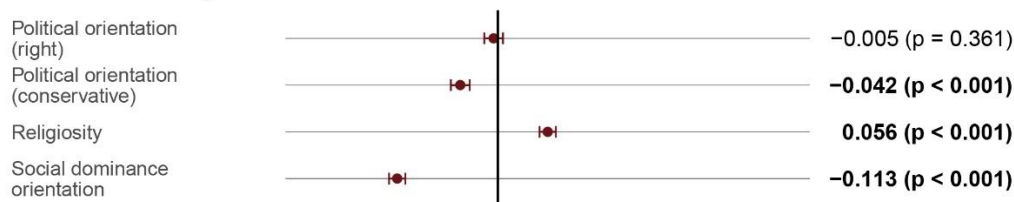


**Fig. S24. Standardised estimates of weighted blockwise multilevel regression model testing the association of confidence in scientists to act in public interest with demographic characteristics, ideological views, attitudes, and country-level indicators (random intercepts across countries)**

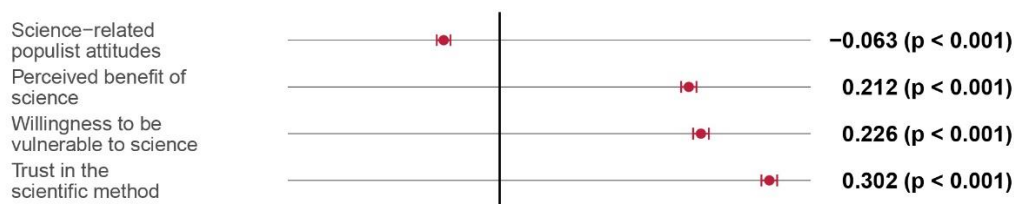
**Block 1: Demographic characteristics**



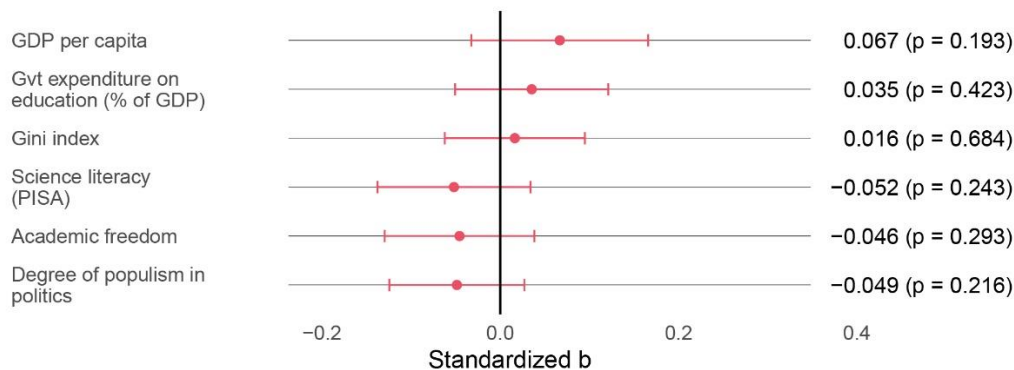
**Block 2: Ideological views**



**Block 3: Attitudes to science**



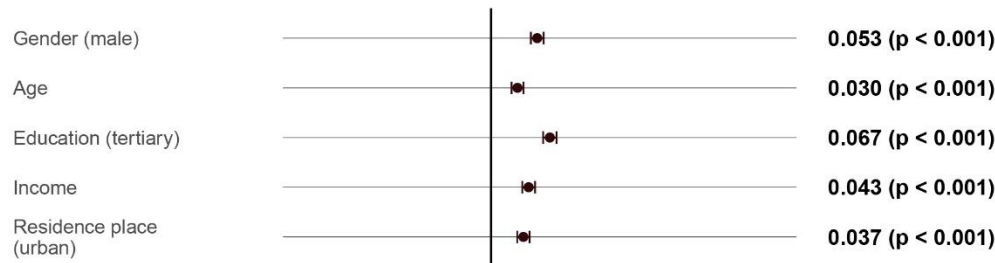
**Block 4: Country-level indicators**



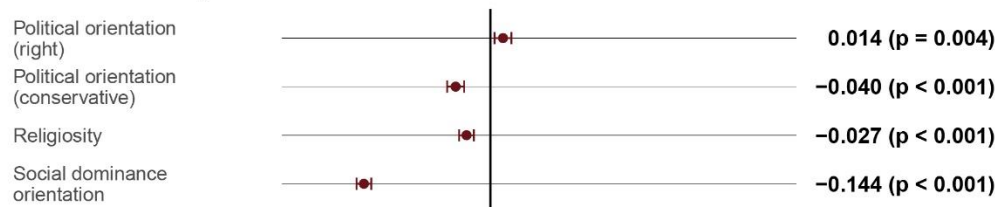
*Note:* Dots indicate point estimates of fixed effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Block 1 uses data from all 68 countries, block 2 uses data from 67 countries (all except Malaysia, where social dominance orientation was not measured), block 3 uses data from 66 countries (all except Malaysia and Mexico, where willingness to be vulnerable to science was not measured), block 4 uses data from 51 countries (all except those where PISA's literacy scores were not available, see supplementary material). Full regression results are reported in table S8.

**Fig. S25. Standardised estimates of weighted blockwise multilevel regression model testing the association of trust in the scientific method with demographic characteristics, ideological views, attitudes, and country-level indicators (random intercepts across countries)**

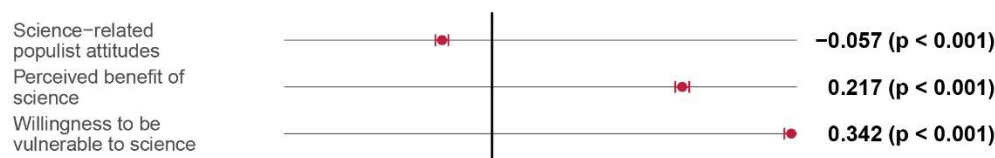
**Block 1: Demographic characteristics**



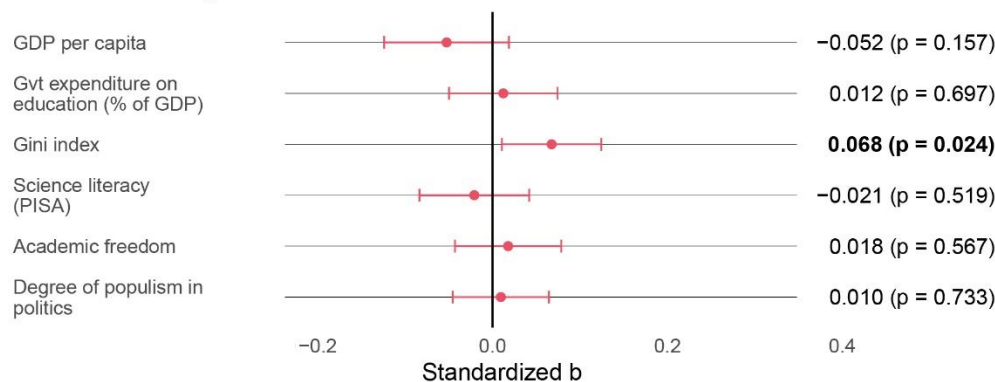
**Block 2: Ideological views**



**Block 3: Attitudes to science**

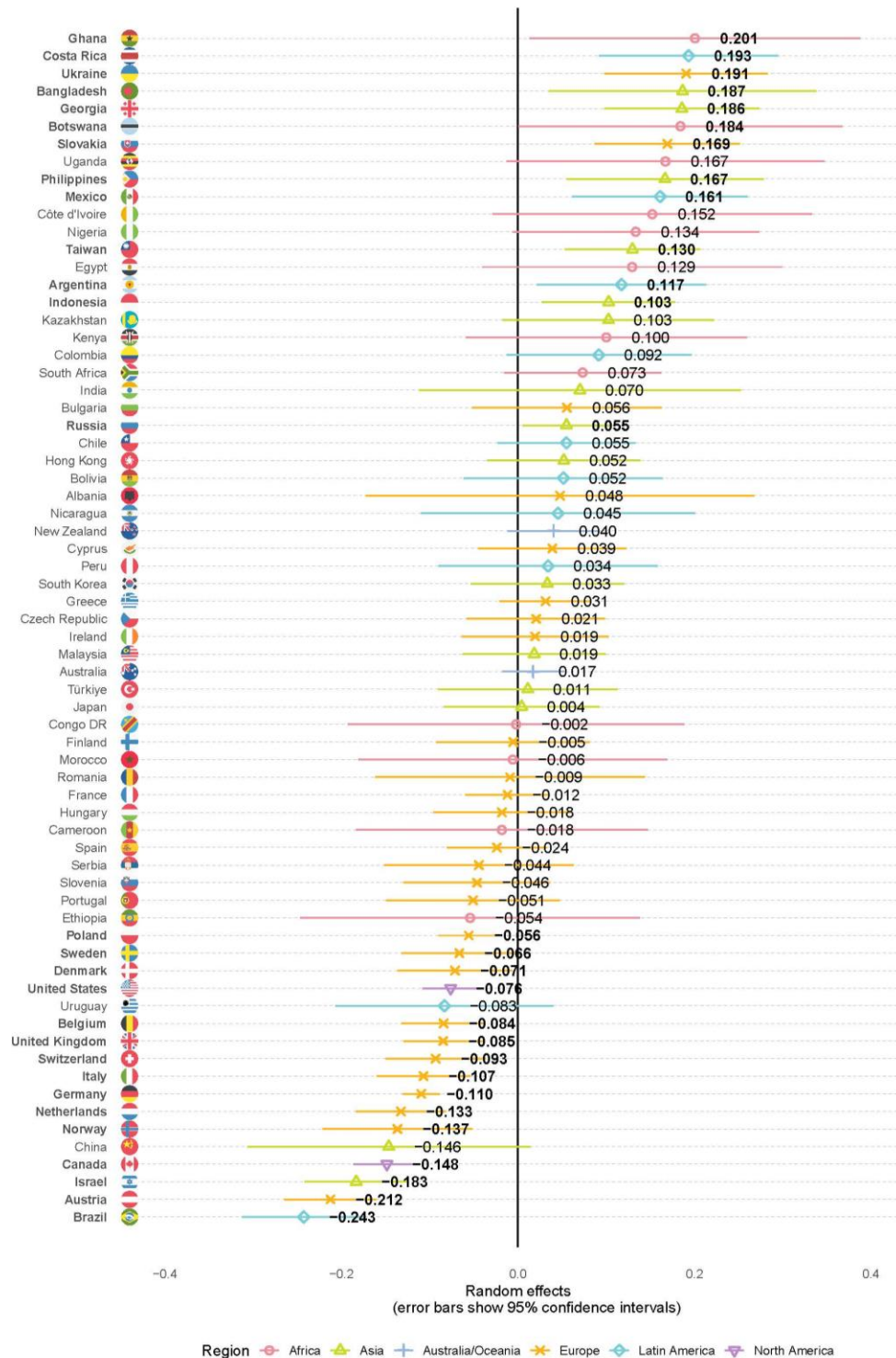


**Block 4: Country-level indicators**



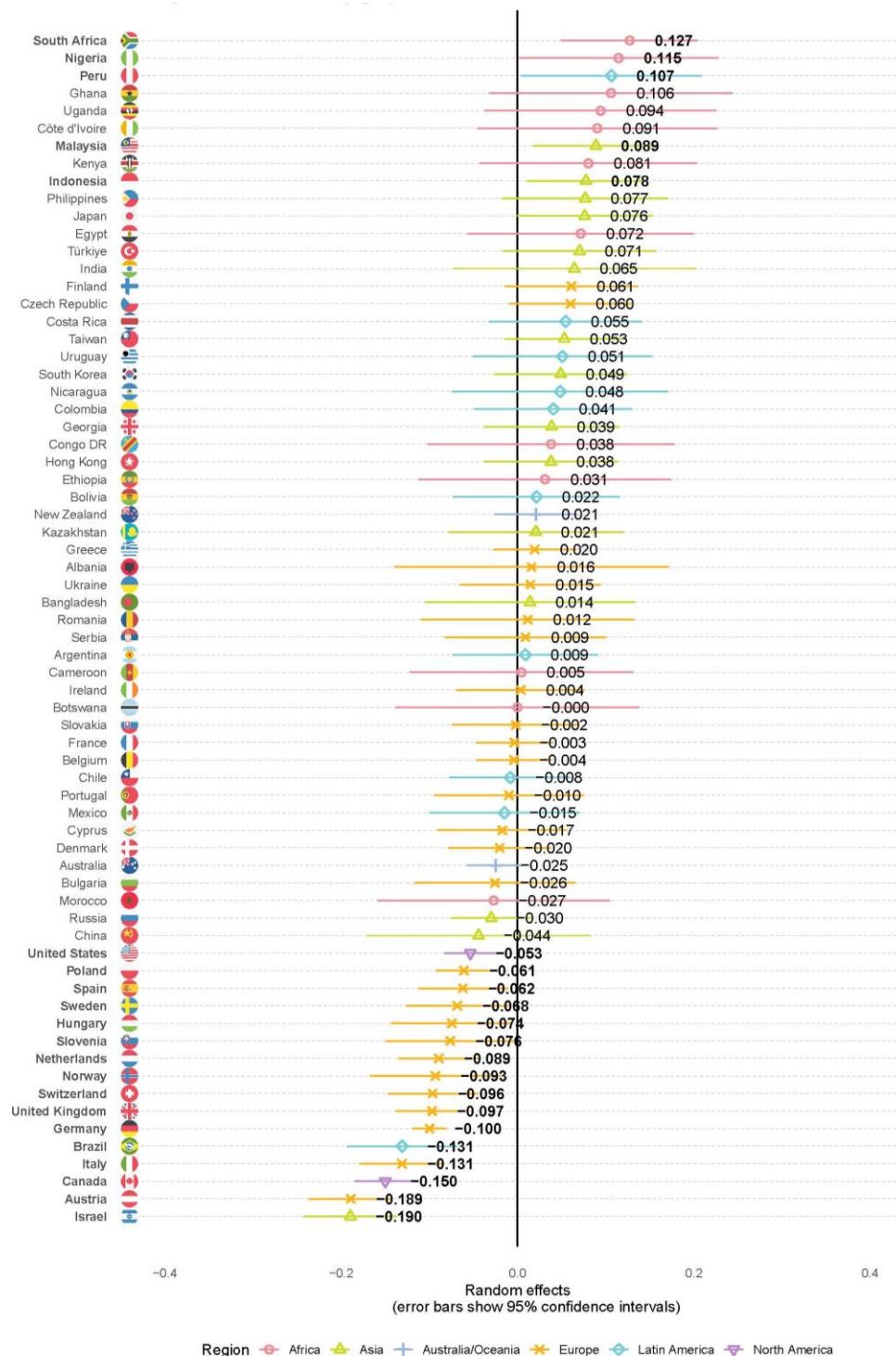
*Note:* Dots indicate point estimates of fixed effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Block 1 uses data from all 68 countries, block 2 uses data from 67 countries (all except Malaysia, where social dominance orientation was not measured), block 3 uses data from 66 countries (all except Malaysia and Mexico, where willingness to be vulnerable to science was not measured), block 4 uses data from 51 countries (all except those where PISA's literacy scores were not available, see supplementary material). Full regression results are reported in table S9.

**Fig. S26. Random effects of political orientation (right) on confidence in scientists across countries**



*Note:* Dots indicate point estimates of random effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Effects significant at  $p < .05$  are printed in bold. Total  $N = 64,442$ . Country  $N$ s range between 284 and 6,941 (see table S21 for  $N$  across countries).

**Fig. S27. Random effects of political orientation (right) on trust in scientific method across countries**



Note: Dots indicate point estimates of random effects, horizontal lines indicate 95% confidence intervals based on two-sided t tests. Effects significant at  $p < .05$  are printed in bold. Total  $N = 64,454$ . Country  $N$ s range between 284 and 6,941 (see table S21 for  $N$  across countries).

## Limitations

We showed all participants the following definition of science and scientists at the beginning of the survey to make sure that participants had a common definition in mind when answering the survey:

“When we say “science”, we mean the understanding we have about the world from observation and testing. When we say “scientists”, we mean people who study nature, medicine, physics, economics, history, and psychology, among other things.”

A similar definition had been pre-tested and used by the Wellcome Global Monitor, one of the main global studies on trust in science. It was added as results from in-depth interviews conducted by the Wellcome Global Monitor<sup>6</sup> suggested that including a definition would improve the reliability of cross-country comparisons. However, we are aware that introducing a very broad definition of science and scientists excludes other epistemological traditions, such as traditional knowledge or indigenous science. While our definition of science reflects the dominant and Western conception of science as an objective and apolitical way of knowing about the world, we want to acknowledge the importance of traditional knowledge and indigenous science.

The structure of our Many Labs study was such that the survey was conceptualized by the first and second author, as well as a “core team” which includes authors 3-9. The core team is composed of experts in the fields of trust in science, science in society, and behavioural science research, who were selected to achieve an expert team with diversity in terms of gender, nationality, and discipline. The fact that almost all core team members are from the Global North and that other co-authors were not involved in the development of the survey provides an important limitation of our work. However, local collaborators could make changes to the survey wherever needed, to make sure that the survey was adequate for the local context. While we are cognizant of the fact that the set-up of our Many Labs study does not fully address concerns of “parachute science”, because of the limited involvement of our collaborators in the survey design, we undertook several steps to establish equitable research collaborations. This includes the opportunity to comment on a previous manuscript draft, a Qualtrics tutorial for collaborators in low-income countries to empower researchers to play a leading role in the data collection, the ability to provide feedback and network with other researchers in monthly Zoom meetings, the assistance and mentorship in writing IRB proposals and the support of early career researchers through the writing of reference letters.

There are some limitations regarding some of our socio-demographic variables, such as education and political orientation. Assessing education across countries presents a challenge given the strong differences in educational systems across the world. We therefore allowed co-authors in certain countries to add examples for primary, secondary, and tertiary education to the questionnaire that were more applicable than the ones mentioned in the main survey (e.g., high school). We also recognize the limits of asking for liberal-conservative and right-left political orientations, as these terms are uncommon or less meaningful when describing political orientations in some countries. However, using these two different measures to assess political orientation and presenting a “don’t know” answer mitigated some of the concerns of only using one measure for political orientation.

A small limitation pertains to the wording of one trust item: While all items asked about perceptions of “most scientists”, the final trust in science item (TRUST\_SCI\_others) only asked about “scientists” (i.e., How much or little attention do scientists pay to others’ views?).

Analyses of the reliability and measurement invariance of our 12-item measure for trust in scientists (see *Methods* section) indicate two limitations: First, we find that our measure has exceptionally high reliability globally, with Cronbach’s Alpha = 0.93 and Omega = 0.95. On the one hand, these high values indicate that our trust measure has high internal consistency, which is worthwhile and demonstrates its capacity to capture trust in scientists precisely. On the other hand, some have argued that exceptionally high reliability values indicate that the scale items are too redundant<sup>96</sup> and recommend a maximum value of Cronbach’s Alpha = 0.90<sup>97</sup>. Second, we find low measurement invariance of the trust measure across countries: Cronbach’s Alpha and Omega vary slightly across countries and Confirmatory Factor Analyses show that we can only assume configural invariance, yet no metric or scalar invariance (see *Methods* section). This suggests that our trust items measure slightly different perceptions in different countries and capture the latent factor “trust in scientists” better in some but less so in others. This reduces the validity of cross-country comparisons of trust in scientists (e.g., mean values, regression estimates). However, this reduction is presumably not severe – and after all, it is a common caveat of multilingual comparative survey research that is to some extent unavoidable<sup>39</sup>.

# Supplementary Methods

Please see the associated publication<sup>38</sup> for a detailed description of the data collection procedure, including information on languages and market research companies used in each country.

## Replication materials

All analyses underlying the main article and the supplementary materials were performed with R version 4.3.3. We share data and code to replicate them analyses at the Open Science

Framework: <https://osf.io/wj34h>

This repository contains (1) R code, precomputed statistical models, and power curve plots of the *power analyses*, (2) R code and survey data to reproduce the analysis of the *pretest survey*, and (3) R code and the data (survey data, country-level indicators, respondent IDs for duplicate checks, answers to the two open questions, population data on gender, age and education) to reproduce the analyses underlying the *main article and the supplementary materials*, as well as (4) precomputed statistical models and figures in high resolution.

## Countries sampled

To qualify for co-authorship, co-authors collected at least  $n = 500$  complete and balanced responses in each country. Exceptions were made when market research companies were not able to recruit  $n = 500$  complete responses (e.g., in Albania, Uruguay). As shown in table S12, data was collected in  $k = 68$  countries, thereby surveying participants in 31% of the world's countries that make up 79% of the total population. As can be seen in table S12, 42% of high-income, 32% of upper middle income, 26% of lower middle income, and 11% of low-income countries were sampled. In terms of the representativeness of surveyed countries by regions (table S13), our dataset covers more than a fourth of countries across most regions, apart from the Middle East & North Africa and Sub-Saharan Africa, where coverage is lower (14% and 21% respectively).

**Table S12. Representativeness of surveyed countries by income groups.**

| Income group        | <i>k</i> TISP | <i>k</i> WB | % TISP       |
|---------------------|---------------|-------------|--------------|
| Low income          | 3             | 28          | 10.71        |
| Lower middle income | 14            | 54          | 25.93        |
| Upper middle income | 17            | 54          | 31.48        |
| High income         | 34            | 81          | 41.98        |
| <b>Total</b>        | <b>68</b>     | <b>217*</b> | <b>31.34</b> |

*Note.* TISP = Project acronym; WB = World Bank. Based on World Bank (2021) data. \*no information for Venezuela



**Table S13. Representativeness of surveyed countries by regions.**

| <b>Region</b>              | <b>k TISP</b> | <b>k WB</b> | <b>% TISP</b> |
|----------------------------|---------------|-------------|---------------|
| Europe & Central Asia      | 31            | 58          | 53.45         |
| East Asia & Pacific        | 10            | 38          | 26.32         |
| South Asia                 | 2             | 8           | 25.00         |
| Latin America & Caribbean  | 10            | 42          | 23.81         |
| Sub-Saharan Africa         | 10            | 48          | 20.83         |
| Middle East & North Africa | 3             | 21          | 14.29         |
| North America              | 2             | 3           | 66.67         |
| <b>Total</b>               | <b>67</b>     | <b>218</b>  | <b>31.19</b>  |

*Note.* TISP = Project acronym; WB = World Bank. Based on World Bank (2021) data.

#### Market research companies

Collaborators were instructed to work with the market research company Bilendi & Respondi, with the exception of most African countries, where collaborators collected data with MSi. A few exceptions were granted, for example, when collaborators' funding was tied to specific panel providers. Working with one market research company in each country allowed us to make sure that the same participants were not sampled twice in countries with multiple co-authors. Convenience samples were not accepted.

#### Preregistration

The preregistration including additional materials (e.g., R code for the power analyses, see below) can be accessed at: <https://osf.io/9ksrj>. There were three deviations from the preregistration:

1. We did not include the item measuring people's confidence that scientists act in the public interest as an explanatory variable in the regression models explaining trust in scientists, albeit we had stated that in the preregistration. This was because this item had a very high correlation with the trust in scientists index (weighted Pearson's  $r(69,502) = 0.707$   $p < .001$ ,  $t = 301.71$ , 95% CI 0.705 to 0.709), which would have led to a substantial inflation of explanatory power, with Conditional  $R^2$  being well above 0.70 (see *Analytical Procedures* for more details).
2. The preregistration did not mention social dominance orientation as a covariate in the regression model testing predictors of normative perceptions of the role of science in society and politics (RQ4). This omission was a mistake. Replicating the procedure of the RQ1, RQ2, RQ3, and RQ5 analyses, we also included social dominance orientation as covariate in the RQ4 analyses.
3. When computing the post-stratification weights via raking (see below), we collapsed single neighbouring age and education strata for some countries: This was because some age and education strata were empty or sparsely populated in several countries, because collaborators had to relax age quotas or oversampled individuals with tertiary education



to reach their target sample size. However, raking is not possible with empty strata and results in extreme weights when applied to data with sparsely populated strata. Therefore, we collapsed empty or sparsely populated age and education strata with adjacent strata in cases where a stratum contained less than 5% of respondents within a country.

We tested all our research questions and hypotheses. However, we do not present results of all these tests in the main article and the supplementary materials, because we did not have enough space or believed they would not fit the focus and narrative of the main article. The research questions and hypotheses whose test results we do not present in the main article are listed in table S14. The preregistered analyses for all of these research questions and hypotheses can be obtained via the code and information contained in the replication materials.

**Table S14. Preregistered research questions and hypotheses whose test results are not presented in the main article.**

| <b>RQ/H</b> | <b>Wording</b>                                                                                                                                                                                                                                                                                                                               |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ1b        | How much do publics across different countries endorse science-related populist attitudes?                                                                                                                                                                                                                                                   |
| RQ2b        | Which individual-level variables predict science-related populist attitudes globally?                                                                                                                                                                                                                                                        |
| H2b-1       | Science-related populist attitudes are associated with the following variables: (1) gender, (2) age, (3) educational attainment, (4) income, (5) urban/rural region of residence, (6) political orientation, (7) conservatism, (8) social dominance orientation, and (9) religiosity.                                                        |
| H2b-2       | Science-related populist attitudes are associated with the following variables: (1) trust in scientists, (2) perceived benefit of science, (3) willingness to be vulnerable to scientists, (4) trust in the scientific method, and (5) confidence in scientists to act in the public's interest.                                             |
| RQ3b        | How does the effect of individual-level and country-level predictors on science-related populist attitudes differ between countries?                                                                                                                                                                                                         |
| H3b-1       | The effects of the following variables (individual level) on science-related populist attitudes vary across countries: (1) gender, (2) age, (3) educational attainment, (4) income, (5) urban/rural region of residence, (6) political orientation, (7) conservatism, (8) social dominance orientation, and (9) religiosity.                 |
| H3b-2       | The effects of the following variables (individual level) on science-related populist attitudes vary across countries: (1) trust in scientists, (2) perceived benefit of science, (3) willingness to be vulnerable to scientists, (4) trust in the scientific method, and (5) confidence in scientists to act in the public's interest.      |
| H3b-3       | The effects of the following indicators (country level) on science-related populist attitudes vary across countries: (1) GDP per capita, (2) Government expenditure on education (% of GDP), (3) GINI Index, (4) PISA Scientific Literacy Score, (5) Academic Freedom Index, and (6) prevalence of populist rhetoric in political discourse. |
| RQ4b        | How do science-related populist attitudes relate to normative perceptions of the role of science in society and politics?                                                                                                                                                                                                                    |
| H4b-1       | Science-related populist attitudes are negatively associated with demanding an active role of scientists in society and politics.                                                                                                                                                                                                            |
| H4b-2       | The association of science-related populist attitudes and normative perceptions varies between countries.                                                                                                                                                                                                                                    |

|      |                                                                                                                                                                                                                                                                                                                                                                           |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H5-2 | Science-related populist attitudes are positively correlated with a higher difference between perceptions and expectations.                                                                                                                                                                                                                                               |
| H5-3 | The correlations hypothesized in H5-1 <sup>a</sup> and H5-2 interact with the following individual-level variables: (1) political orientation, (2) conservatism, (3) religiosity, (4) perceived benefit of science, (5) willingness to be vulnerable to scientists, (6) trust in the scientific method, and (7) confidence in scientists to act in the public's interest. |
| H5-4 | The correlations hypothesized in H5-1 <sup>a</sup> and H5-2 interact with the following country-level variables: (1) GDP per capita, (2) Government expenditure on education (% of GDP), (3) GINI Index, (4) PISA Scientific Literacy Score, (5) Academic Freedom Index, and (6) prevalence of populist rhetoric in political discourse.                                  |
| RQ6a | Which world regions do people believe benefit most from science?                                                                                                                                                                                                                                                                                                          |
| RQ6b | Which world regions do people believe benefit least from science?                                                                                                                                                                                                                                                                                                         |
| RQ6c | How do the beliefs addressed by RQ6a and RQ6b differ depending on where respondents are from?                                                                                                                                                                                                                                                                             |

---

*Note.* <sup>a</sup> H5-1 was as follows: Trust in scientists is positively correlated with a smaller difference between perceptions and expectations.

## Power analysis

First, we simulated datasets with  $n \times k$  observations, with  $n$  = target sample size per country and  $k$  = target number of countries. We chose  $n$  we chose a value 500 and for  $k$  we chose the values 3 and 15. Note that the simulated data are considerably smaller than those later collected in the main study, because power analyses for generalized linear mixed models require considerable computation power. Using sample sizes matching the scope of the TISP project (e.g., 65,000 with  $n = 1,000$  in  $k = 65$  countries, which was our estimate at that time) would thus have led to an extremely long computation duration. The simulated datasets contained the ten variables: the four dimension scores of our 12-item measure for trust in scientists (competence, integrity, benevolence, openness) and the aggregate score for trust in scientists (mean of the four dimension scores) as well as the four dimension scores of our 8-item measure for science-related populist attitudes (conceptions of the ordinary people, conceptions of the academic elite, demands for decision-making sovereignty, demands for truth-speaking sovereignty) and the aggregate score for science-related populist attitudes (smallest value of the four dimension scores, i.e. the “Goertz score”, see<sup>98</sup>; see *Indices* section). Please note that we also ran power analyses for science-related populist attitudes (albeit the main article focuses on trust in scientists), because the preregistration and early versions of the manuscript centered on both trust in scientists and science-related populism.

When simulating the datasets, we derived plausible average values for the dimension scores from existing studies which had used our measures for trust in scientists<sup>48</sup> and science-related populist attitudes<sup>99</sup>.

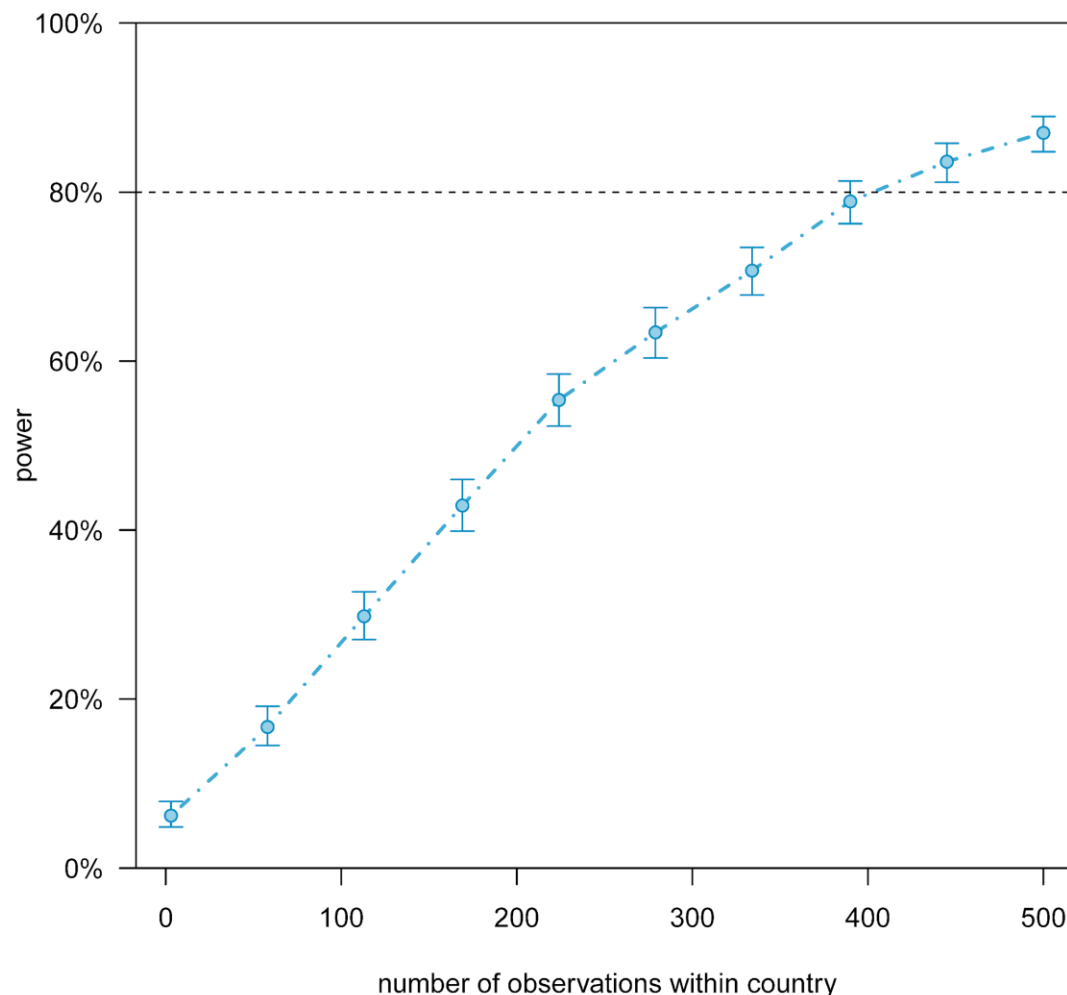
Second, we simulated linear multilevel regression models that contained random intercepts across the  $k$  countries and predicted outcome  $y$  with the aggregate scores of (1) trust in scientists or (2) science-related populist attitudes. When simulating the regression models, we specified different plausible effect sizes of trust in scientists ( $b = 0.20$  and  $b = 0.10$ ) and science-related populist attitudes ( $b = 0.10$  and  $b = 0.05$ ), also derived from previous research (e.g., 44, 47, 53). Note that we expected smaller effect sizes for science-related populist attitudes as we rely on the

“Goertz” aggregation approach, which has been found to lead to more conservative effect estimates<sup>98,100</sup>. For further details on the simulations and parameter specifications (global intercept, standard deviations of random intercepts, residual variances), see the R code we share at: <https://osf.io/wj34h>.

Third, we ran four power analyses (1,000 model simulations, alpha level = 0.05). They gave the following results:

(1) With an overall sample size of 1,500 ( $n = 500$  in  $k = 3$  countries), we reach a power of 87.00% (95% CI: 84.76, 89.02) to detect a fixed effect of  $b = 0.20$  for trust in scientists on an outcome variable  $y$  (see power curve in fig. S28).

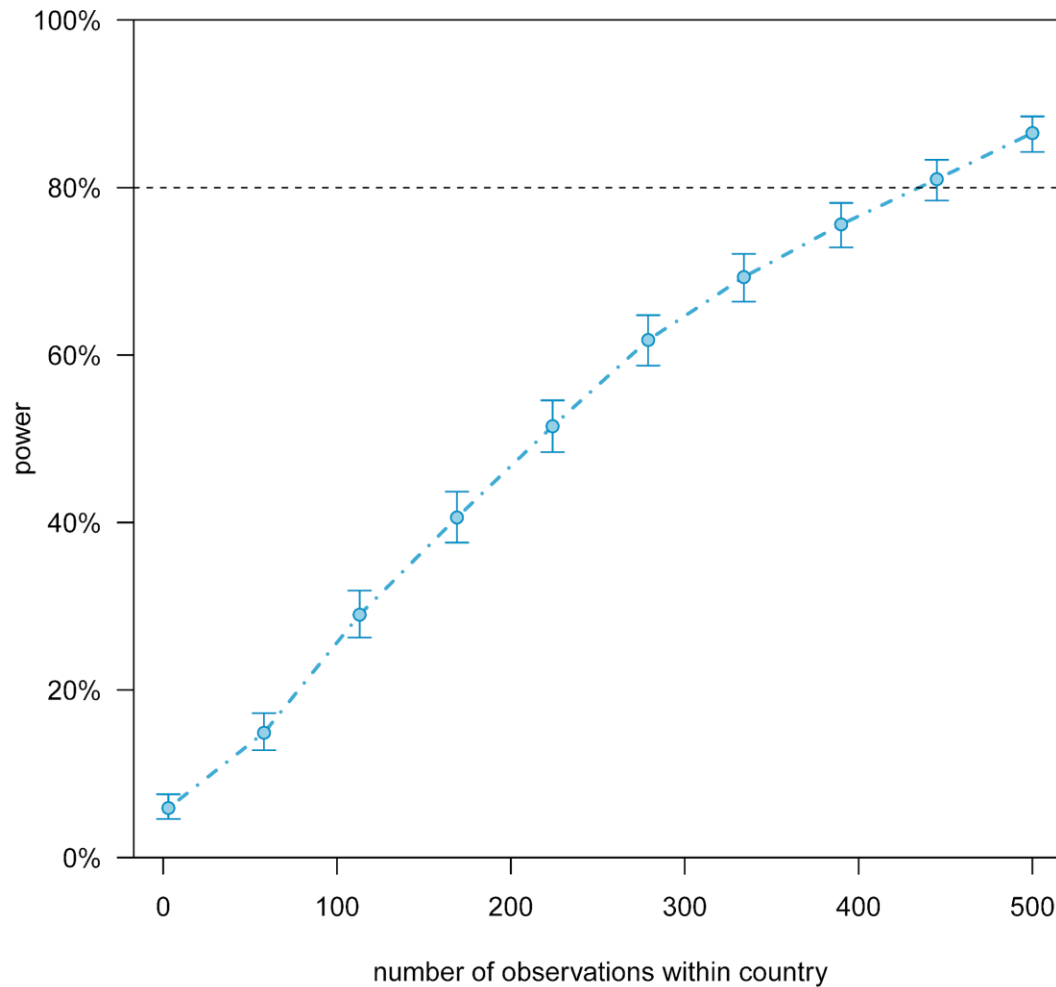
**Fig. S28. Power curve of simulation-based power analysis for effects of trust in scientists ( $b = 0.20$ ,  $k = 3$  countries).**



*Note:* Dots indicate point estimates of statistical power for different numbers of observations within countries. Vertical lines indicate 95% confidence intervals.

(2) With an overall sample size of 1,500 ( $n = 500$  in  $k = 3$  countries), we reach a power of 86.50% (95% CI: 84.22, 88.56) to detect a fixed effect of  $b = 0.10$  for science-related populist attitudes on an outcome variable  $y$  (see power curve in fig. S29).

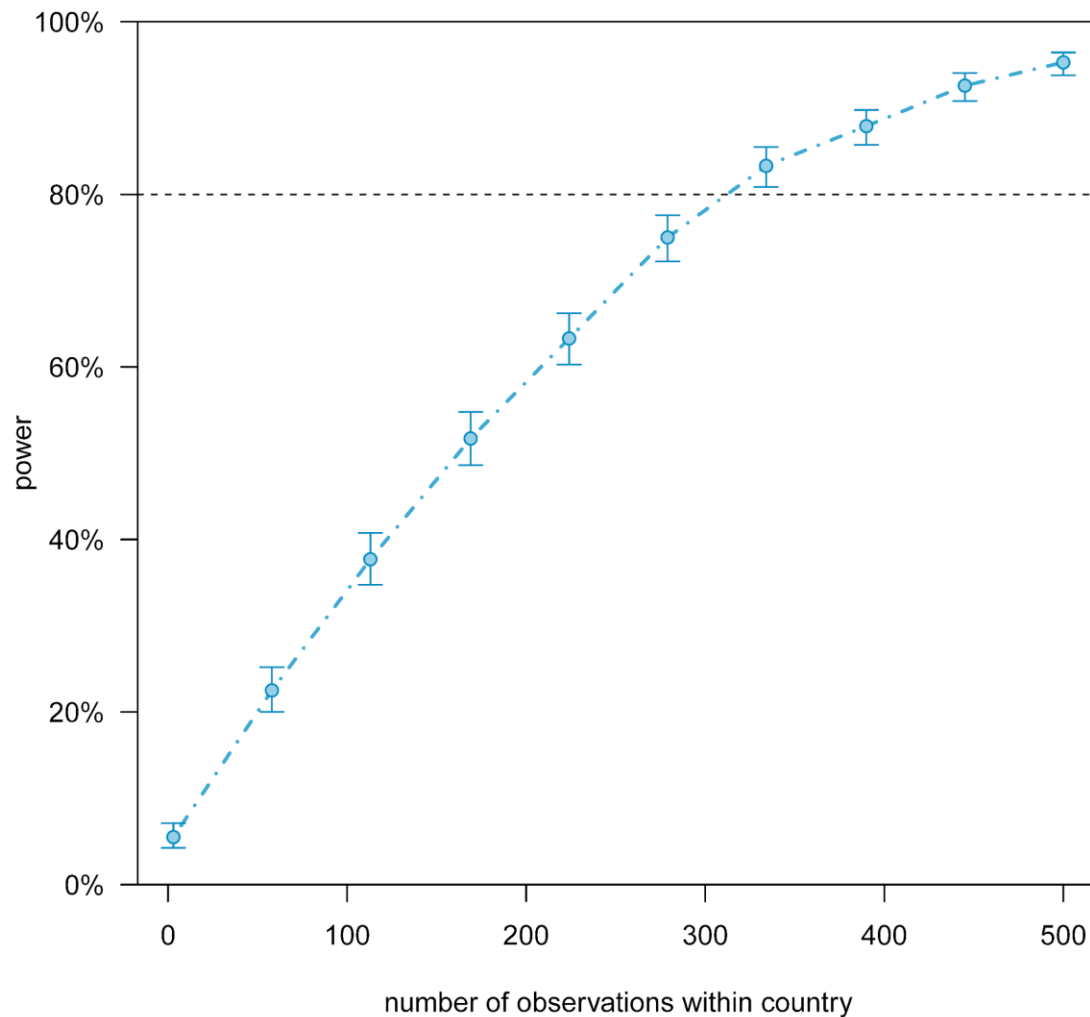
**Fig. S29. Power curve of simulation-based power analysis for effects of science-related populist attitudes ( $b = 0.10$ ,  $k = 3$  countries).**



*Note:* Dots indicate point estimates of statistical power for different numbers of observations within countries. Vertical lines indicate 95% confidence intervals.

(3) With an overall sample size of 7,500 ( $n = 500$  in  $k = 15$  countries), we reach a power of 95.30% (95% CI: 93.80, 96.53) to detect a fixed effect of  $b = 0.10$  for *trust in scientists* on an outcome variable  $y$  (see power curve in fig. S230).

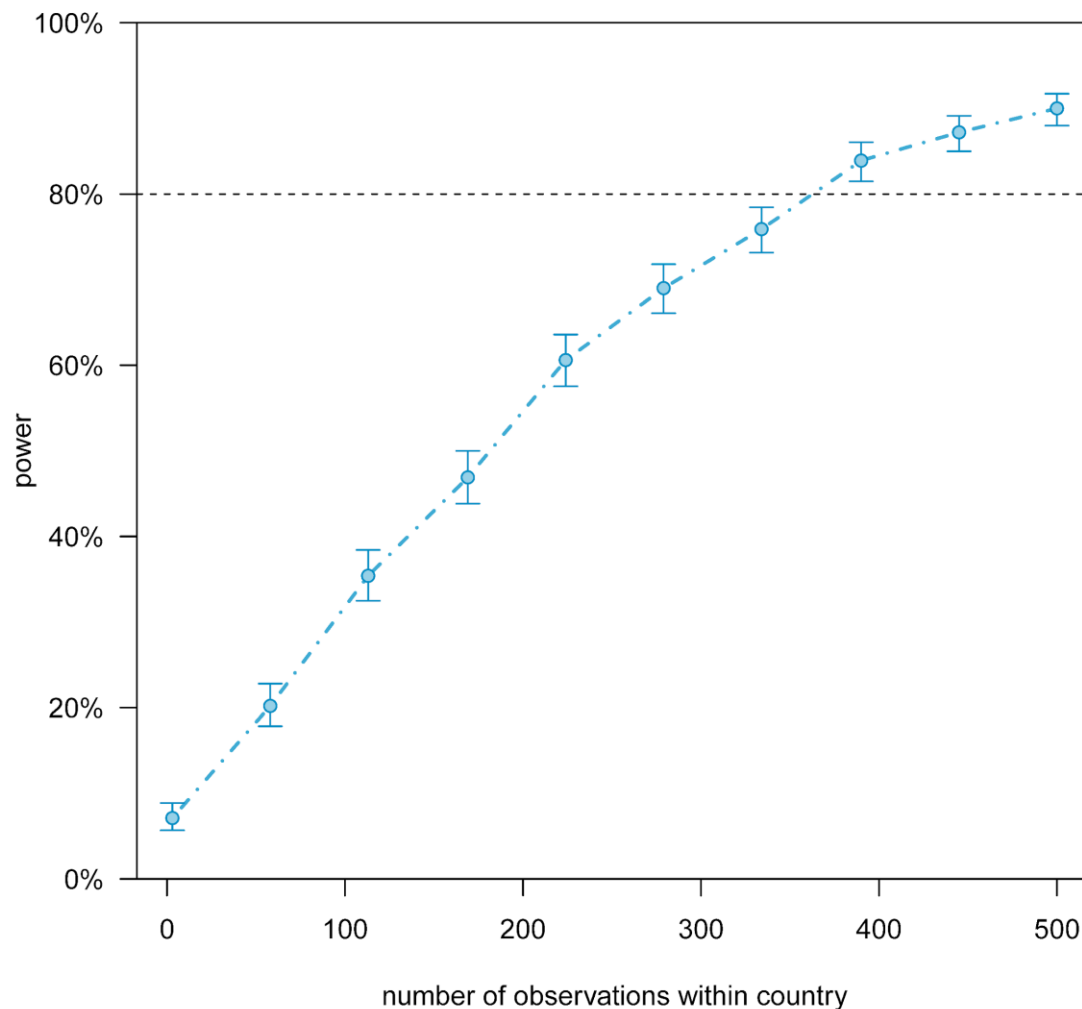
**Fig. S30. Power curve of simulation-based power analysis for effects of trust in scientists ( $b = 0.10$ ,  $k = 15$  countries).**



*Note:* Dots indicate point estimates of statistical power for different numbers of observations within countries. Vertical lines indicate 95% confidence intervals.

(4) With an overall sample size of 7,500 ( $n = 500$  in  $k = 15$  countries), we reach a power of 90.00% (95% CI: 87.97, 91.79) to detect a fixed effect of  $b = 0.05$  for science-related populist attitudes on a given outcome variable (see power curve in fig. S31).

**Fig. S31. Power curve of simulation-based power analysis for effects of science-related populist attitudes ( $b = 0.05$ ,  $k = 15$  countries).**



*Note:* Dots indicate point estimates of statistical power for different numbers of observations within countries. Vertical lines indicate 95% confidence intervals.

Based on these analyses we determined a minimum target sample size of 7,500, with  $n = 500$  in  $k = 15$  countries to detect fixed effects of trust in scientists and science-related populists as small as  $b = 0.10$  and  $b = 0.05$ , respectively. Our final sample of 71,922 individuals with  $k = 68$  countries is thus by far big enough to detect even smaller effects of trust in scientists and science-related populist attitudes.

## The dataset

The collaborators submitted the complete data sets to the project team, i.e., including respondents who did not complete the survey. All these 88 datasets (68 countries) were then merged to a single dataset. Please see the associated publication<sup>38</sup> for a detailed description of how the final data set was prepared<sup>38</sup>. This publication provides a detailed description of data cleaning and pre-processing procedures (exclusion of duplicate respondents, including the computation of post-stratification weights used in the analyses (see section *Analytical Procedures*). It also contains weighted and unweighted descriptives of the global sample and all country samples, tests the performance of the attention checks, and presents comprehensive tests of the psychometric properties of the trust in scientists scale and the SDO scale – i.e., tests of the internal consistency of the scales (Cronbach's Alpha and Omega), exploratory and confirmatory factor analyses investigating their dimensional structures, analyses of measurement invariance across countries, and convergent validity tests.

## Country indicators

We added six country-level indicators to the TISP dataset<sup>38</sup>, following the procedure described in the preregistration.

- 1) *Gross domestic product per capita*: To measure the wealth of each country, we drew on the gross domestic product (GDP) per capita in US dollars. We used 2021 figures provided by the World Bank and the OECD, which are the most recent data<sup>101</sup>. If there were no 2021 data available, we used the most recent value from 2016-2020. There was one exception: We relied on official data of the local government for Taiwan, as the World Bank and OECD do not provide GDP data for it<sup>102</sup>.
- 2) *Government expenditure on education in % of GDP*: To measure how much priority each country attributes to school and academic education, we used data on expenditures of local, regional and central governments on education (current, capital, and transfers) as a percentage of GDP. We relied on 2021 World Bank values that were collected by the UNESCO Institute for Statistics<sup>103</sup>, which are the most recent data. If there were no 2021 data available, we used the most recent value from 2016-2020. There were two exceptions: We used data from 2013 for Nigeria, because more recent data were not available, and relied on official data of the local government for Taiwan, as the World Bank does not provide data on education expenditures it<sup>104</sup>.
- 3) *Gini Index*: To measure the extent to which the distribution of income among individuals or households within each country deviates from a perfectly equal distribution, we used the Gini Index. A Gini Index of 0 represents perfect equality, while an index of 100 implies perfect inequality. We used 2021 scores provided by the World Bank, which are the most recent data<sup>105</sup>. If there were no 2021 data available, we used the most recent value from 2016-2020. There were some exceptions: We used earlier scores for the Democratic Republic of the Congo (2012), Cameroon (2014), Botswana (2015), Ethiopia (2015), Kenya (2015), Japan (2013), Malaysia (2015), Morocco (2013), Nicaragua (2014), and South Africa (2014), because more recent data were not available. Moreover, we relied on World Economics, a UK-based data service owned by Information Sciences Ltd., who estimated Gini scores for countries not covered by the World Bank dataset,

using additional data sources<sup>106</sup>. These countries/territories were New Zealand, Hong Kong, and Taiwan.

- 4) *PISA science performance score*: To measure a population's average literacy "in the use of scientific knowledge to identify questions, acquire new knowledge, explain scientific phenomena, and draw evidence-based conclusions about science-related issues" within each country, we relied on the Science Performance indicator of the Programme for International Student Assessment (PISA) for each country. We used scores provided by the OECD, which are based on data by the most current PISA study from 2018<sup>107</sup>. Since these data only include scores for OECD countries, we also included data from partner studies in non-OECD countries or jurisdictions<sup>108</sup>. If there were no 2018 data available, we used the most recent scores from 2006-2015, which was when previous PISA studies were conducted. Please note that there are still several countries which participated neither in the main PISA study nor in the partner studies, so we could not add science performance scores to the survey data for them. These countries are: Bangladesh, Bolivia, Botswana, Cameroon, the Democratic Republic of the Congo, Côte d'Ivoire, Egypt, Ethiopia, Ghana, India, Kenya, Nicaragua, Nigeria, South Africa, and Uganda.
- 5) *Academic freedom*: To measure academic freedom across countries, we drew on the Academic Freedom Index, which is a score provided by the Varieties of Democracy (V-Dem) Project and the University of Erlangen–Nuremberg<sup>109</sup>. It is based on a survey of 2,050 country experts who assessed "the freedom to research and teach, the freedom of academic exchange and dissemination, the institutional autonomy of higher education institutions, and campus integrity"<sup>110</sup>. The score ranges between 0 = no freedom and 1 = perfect freedom. We used 2022 data but relied on the most recent scores from 2017-2021 if no 2022 data were available. Academic Freedom Index values of the countries included in the TISP project ranged between 0.977 for the Czech Republic and 0.070 for China ( $M = 0.720$ ,  $SD = 0.266$ ).
- 6) *Prevalence of populist rhetoric in politics*: To measure how much political discourse in each country is determined by populist actors and their arguments, we used a score that is based on the Global Party Survey<sup>111</sup> and was introduced by<sup>20</sup>. It is a continuous score that is "composed from two items measured in the Global Party Survey 2019, which asked 1,861 experts to assess the agendas and rhetoric of 1,043 political parties in 163 countries<sup>111</sup>. To obtain this index, we proceeded as follows: First, we selected two items that asked experts how strongly each party in a given country favours populist vs. pluralist rhetoric (11-point Likert scales, 0 = strongly favours pluralist rhetoric – 10 = strongly favours populist rhetoric) and how important populist rhetoric is for each party in that country (11-point Likert scales, 0 = no importance – 10 = great importance). Second, we computed mean values of these two items across all parties within each country. Third, we averaged these values, which resulted in a single aggregate measure for the prevalence of populist rhetoric within national political discourses"<sup>20</sup> (p. 3). Higher values thus indicate higher prevalence, with a range between 2.759 for Canada and 8.375 for Kazakhstan ( $M = 5.588$ ,  $SD = 1.143$ ). Note that there was no Global Party Survey data available for China and Hong Kong, so we used proxy estimates derived from the relevant literature. For China, recent scholarly work suggests that the Chinese political system and its leader Xi Jinping feature several aspects of populism, authoritarianism, and anti-pluralism, so we assigned a relatively high score of 7.00<sup>112–114</sup>.



For Hong Kong, researchers suggest that political discourse has some populist elements, which is due to populist rhetoric of politicians and parties, but mostly due to grassroots movements and localist groups, so we assigned a medium score of 6.00<sup>115–118</sup>.

These country indicators can be conceived as proxies for cultural and political similarities between countries. Including them in (most of) our models (see section *Analytical Procedures*) thus enabled us to not only test our hypotheses – but also to account for recent critiques that cross-national studies often do not control for similarities, proximity, and connectedness between the clusters in their samples (i.e., countries), such as common cultural values and political climates, which may violate assumptions of non-independence and lead to higher false positive rates<sup>119</sup>.

## Analytical Procedures

Below we describe the analyses underlying the results presented in the main article and the Supplementary Materials. They are entirely reproducible with the materials shared at: <https://osf.io/wj34h>

### Indices

*Trust in scientists* was measured with the unweighted mean of all twelve items capturing four conceptual dimensions of trust in scientists, i.e., competence, integrity, benevolence, and openness (weighted  $M = 3.62$ ,  $SD = 0.70$ ). Higher values indicate higher trust (range: 1 – 5). Scale reliability was very high (Cronbach's Alpha = 0.93; Omega = 0.95; see Mede et al.<sup>46</sup> for a detailed analysis of the psychometric properties and measurement performance of the scale).

*Science-related populist attitudes* were measured with a score that was based on mean values of the four dimensions of the SciPop scale, i.e., conceptions of the ordinary people, conceptions of the academic elite, demands for decision-making sovereignty, demands for truth-speaking sovereignty (weighted  $M = 2.32$ ,  $SD = 0.91$ ). Higher values indicate stronger science-related populist attitudes (range: 1 – 5). In particular, we followed the “Goertz approach”<sup>98</sup>. It suggests using the smallest dimension mean as an indicator for one's level of science-related populist attitudes. This procedure accounts for the conceptual premise that all four components have to be concurrently present to diagnose science-related populist attitudes, whereas absence of one or more components would disqualify someone to be classified as a proponent of science-related populism<sup>38</sup>. Scale reliability was high (Cronbach's Alpha = 0.79, Omega = 0.87; see Mede et al.<sup>46</sup> for a detailed analysis of the psychometric properties and measurement performance of the scale).

*Social dominance orientation (SDO)* was measured with the unweighted mean of the respective three items (weighted  $M = 3.62$ ,  $SD = 1.76$ , range: 1 – 10). Scale reliability was mediocre (Cronbach's Alpha = 0.57, Omega = 0.59; see Mede et al.<sup>46</sup> for a detailed analysis of the psychometric properties and measurement performance of the scale).

*Willingness to be vulnerable to scientists* was measured with the unweighted mean of the respective three items (weighted  $M = 3.85$ ,  $SD = 0.80$ ). Scale reliability was good (Cronbach's

Alpha = 0.75, Omega = 0.75). Higher values indicate higher willingness to be vulnerable (range: 1 – 5).

*Normative perceptions of the role of science in society and politics* were measured with the unweighted mean of the respective five items (weighted  $M = 3.64$ ,  $SD = 0.87$ ). Scale reliability was good (Cronbach's Alpha = 0.74, Omega = 0.75). Higher values indicate stronger demands for a more active role of scientists in society and politics (range: 1 – 5).

*The discrepancy of desired research priorities and perceptions of actual research efforts* and was measured with a score that captures if people's desires that scientists should prioritize certain issues match or deviate from people's perceptions that science actually tackles these issues. Higher values indicate that science's actual efforts to tackle those issues are more likely to exceed people's desires that scientists should prioritize them. Accordingly, lower values indicate that science's actual efforts to tackle those issues are more likely to stay behind people's desires that scientists should prioritize them (range: -4 – 4). The score was composed as follows: First, we subtracted response values for desired priorities from perceptions of actual efforts for each of the four items (improving public health, solving energy problems, reducing poverty, developing defence and military technology). This gave us four discrepancy scores, one for each issue. Second, we computed the mean of these four scores (weighted  $M = -0.41$ ,  $SD = 0.80$ ). Scale reliability was acceptable (Cronbach's Alpha = 0.45, Omega = 0.67).

## Scaling

We scaled all continuous and binary level-1 variables (i.e., variables measured at the level of respondents) within countries and all level-2 variables (i.e., indicators measured at the level of countries) within the full sample: For each level-1 variable, we subtracted the unweighted within-country mean from the response values and divided them by the unweighted within-country standard deviation. For each level-2 variable, we subtracted the unweighted grand mean from the indicator values and divided them by the unweighted global standard deviation. This was to prepare the variables for multilevel regression modelling; it allows valid comparisons of regression estimates, faster model convergence, and compensation of potential multicollinearity issues<sup>120</sup>.

We used within-cluster transformation instead of grand mean/SD transformation for level-1 variables because this enabled us to distinguish country-level effects from individual-level effects<sup>121</sup>. Note that we scaled the variables instead of only centering them because some variables were on very different scales (e.g., age, income, and political orientation, or the Gini Index and the Academic Freedom Index). Our decision to scale both continuous and binary variables was because only scaling continuous independent variables in regression models can lead to conflated estimates for categorical independent variables<sup>122</sup>.

## Analysis of average levels of trust in scientists

To assess average levels of trust in scientists, we computed weighted mean values and SEs of the trust index (average of responses to the 12 items measuring trust in scientists, see *Indices* section). This analysis relied on a survey design object that was created with the R package

survey<sup>84</sup> (v4.4-2) and contained post-stratification weights at country level and sample size weights for each country to account for different selection probabilities across genders (male / female), age groups (18-29 / 30-39 / 40-49 / 50-59 / 60+ years), education levels (none or primary / secondary / tertiary education), and countries (due to different sample sizes). See table S20 for an overview of valid N across countries. See Mede et al.<sup>46</sup> for more information.

### **Analysis of factors explaining trust in scientists**

The independent variables were included in four blocks. See table S21 for an overview of valid N across countries.

- Block 1 contained all variables measuring demographic characteristics, i.e., gender (binary; 1 = male), age (continuous), education (binary; 1 = tertiary education), annual household income in US dollar (continuous, log-transformed), and place of residence (binary; 1 = urban).
- Block 2 contained all variables measuring ideological views, i.e. right-leaning political orientation (5-point scale), conservative political orientation (5-point scale), religiosity (5-point scale), and social dominance orientation (continuous). Please also note that social dominance orientation was not measured in Malaysia, so the block-2 model did not rely on data from all 68 countries but only from 67 countries.
- Block 3 contained variables measuring attitudes to science, i.e., science-related populist attitudes (continuous), perceived personal benefit of science (continuous), willingness to be vulnerable to scientists (continuous), and trust in the scientific method (5-point scale). Please also note that willingness to be vulnerable to scientists was not measured in Mexico, so the block-3 model did not rely on data from 67 countries but only from 66 countries.
- Block 4 contained all country indicators, i.e., the GDP per capita, government expenditure on education in % of GDP, Gini Index, PISA science performance score, Academic Freedom Index, and prevalence of populist rhetoric in politics. Note that there was no PISA data available for some countries, so the block-4 models relied on data from only 51 countries (see section *Country indicators*).

Please note that we did not include the 1-item measure of confidence in scientists to act in the public interest as an independent variable in the models, which is a deviation from the preregistration (see section *Preregistration*). This was because the confidence measure had a very high correlation with the trust in scientists index (weighted Pearson's  $r(69,502) = 0.707$   $p < .001$ ,  $t = 301.71$ , 95% CI 0.705 to 0.709), which is plausible given that confidence that scientists act in the best interests of the public is an essential aspect of the benevolence dimension of the trust index. Including the confidence measure in regression models explaining trust in scientists would thus have led to a substantial inflation of explanatory power, with Conditional  $R^2$  being well above 0.70. We also found pronounced correlations of trust in scientists and the other block-3 independent variables (science-related populist attitudes, perceived personal benefit of science, willingness to be vulnerable, trust in the scientific method), but they were clearly less strong than correlations of the trust index and confidence measure, so we kept them in the models (see table S15).

**Table S15. Weighted zero-order correlations of trust in scientists and the attitudes to science.**

|                                              | Trust in scientists | Science-related populist attitudes | Confidence scientists act in public interest | Benefit of science | Willing-ness to be vulnerable | Trust in scientific method |
|----------------------------------------------|---------------------|------------------------------------|----------------------------------------------|--------------------|-------------------------------|----------------------------|
| Trust in scientists                          | 1                   |                                    |                                              |                    |                               |                            |
| Science-related populist attitudes           | -0.11***            | 1                                  |                                              |                    |                               |                            |
| Confidence scientists act in public interest | 0.71***             | -0.14***                           | 1                                            |                    |                               |                            |
| Benefit of science                           | 0.45***             | -0.15***                           | 0.40***                                      | 1                  |                               |                            |
| Willingness to be vulnerable                 | 0.46***             | -0.12***                           | 0.42***                                      | 0.39***            | 1                             |                            |
| Trust in scientific method                   | 0.47***             | -0.15***                           | 0.48***                                      | 0.38***            | 0.47***                       | 1                          |

Note: Estimates are based on post-stratification weights accounting for unequal selection probabilities across countries, genders, age groups, and education levels. \*\*\*  $p < .001$ .

**Table S16. Variance inflation factors for weighted linear multilevel regression model explaining trust in scientists.**

| Independent variable                       | VIF  |
|--------------------------------------------|------|
| Gender (male)                              | 1.03 |
| Age                                        | 1.03 |
| Education (tertiary)                       | 1.06 |
| Income                                     | 1.04 |
| Residence place (urban)                    | 1.01 |
| Political orientation (right)              | 1.46 |
| Political orientation (conservative)       | 1.46 |
| Religiosity                                | 1.11 |
| Social dominance orientation               | 1.18 |
| Science-related populist attitudes         | 1.15 |
| Perceived benefit of science               | 1.34 |
| Willingness to be vulnerable to scientists | 1.44 |
| Trust in the scientific method             | 1.43 |
| GDP per capita                             | 2.23 |
| Government expenditure on education        | 1.31 |
| Gini index                                 | 1.37 |
| PISA science literacy score                | 2.10 |
| Academic freedom                           | 1.60 |
| Degree of populism in politics             | 1.46 |

Significance tests of regression estimates relied on the Satterthwaite method<sup>89</sup>, which is one of several approaches to approximate the denominator degrees of freedom for  $F$  statistics or degrees of freedom for  $t$  statistics in multilevel models (besides the t-as-z, LRT, or Kenward-Roger approximations). For our models, which were estimated with restricted maximum likelihood (REML), the Satterthwaite<sup>89</sup> and Kenward-Roger methods<sup>123</sup> were found to produce the least biased estimates: Simulation studies showed that they have the lowest Type-1 error rates and outperform other approximation methods in small samples, with negligible differences between the two methods<sup>124</sup>. We tested both the Satterthwaite and the Kenward-Roger method for our models and found that  $t$ ,  $df$ , and  $p$  values did almost not differ: Minor deviations, if any, occurred only in the 3<sup>rd</sup> or 4<sup>th</sup> decimal place of  $t$  values, and in the 4<sup>th</sup> or 5<sup>th</sup> decimal place of  $p$  values (see replication materials). The Satterthwaite method seems to be very marginally more conservative in our case (i.e.,  $t$  values were very marginally lower). We thus relied on the Satterthwaite method – also because it is considerably less computationally expensive.

**Table S17. Variance inflation factors for weighted linear multilevel regression model explaining normative perceptions of science in society and policymaking.**

| Independent variable                 | VIF  |
|--------------------------------------|------|
| Trust in scientists                  | 1.06 |
| Science-related populist attitudes   | 1.07 |
| Gender (male)                        | 1.02 |
| Age                                  | 1.02 |
| Education (tertiary)                 | 1.04 |
| Income                               | 1.03 |
| Residence place (urban)              | 1.01 |
| Political orientation (right)        | 1.38 |
| Political orientation (conservative) | 1.37 |
| Religiosity                          | 1.07 |
| Social dominance orientation         | 1.08 |

### **Analysis of factors explaining perceived and desired priorities of scientific research**

For each model, the independent variables were included in four blocks. See table S21 for an overview of valid N across countries.

- Block 1 contained all variables measuring demographic characteristics, i.e., gender (binary; 1 = male), age (continuous), education (binary; 1 = tertiary education), annual household income in US dollar (continuous, log-transformed), and place of residence (binary; 1 = urban).
- Block 2 contained all variables measuring ideological views, i.e. right-leaning political orientation (5-point scale), conservative political orientation (5-point scale), religiosity (5-point scale), and social dominance orientation (continuous). Please also note that social dominance orientation was not measured in Malaysia, so the block-2 model did not rely on data from all 68 countries but only from 67 countries.
- Block 3 contained variables measuring attitudes to science, i.e., science-related populist attitudes (continuous), perceived personal benefit of science (continuous), willingness to be vulnerable to scientists (continuous), and trust in the scientific method (5-point scale). Please also note that willingness to be vulnerable to scientists was not measured in Mexico, so the block-3 model did not rely on data from 67 countries but only from 66 countries.
- Block 4 contained all country indicators, i.e., the GDP per capita, government expenditure on education in % of GDP, Gini Index, PISA science performance score, Academic Freedom Index, and prevalence of populist rhetoric in politics. Note that there was no PISA data available for some countries, so the block-4 models relied on data from only 51 countries (see section *Country indicators*).

**Table S18. Variance inflation factors for weighted linear multilevel regression models explaining the discrepancy of desires that scientists should prioritize certain issues and perceptions that science addresses these issues.**

| Independent variable                       | VIF                                     |                           |                    |                                              |
|--------------------------------------------|-----------------------------------------|---------------------------|--------------------|----------------------------------------------|
|                                            | Model outcome: discrepancy score for... |                           |                    |                                              |
|                                            | “improving public health”               | “solving energy problems” | “reducing poverty” | “developing defence and military technology” |
| Trust in scientists                        | 1.07                                    | 1.11                      | 1.06               | 1.16                                         |
| Science-related populist attitudes         | 1.04                                    | 1.04                      | 1.02               | 1.11                                         |
| Gender (male)                              | 1.03                                    | 1.03                      | 1.03               | 1.03                                         |
| Age                                        | 1.02                                    | 1.02                      | 1.02               | 1.02                                         |
| Education (tertiary)                       | 1.05                                    | 1.05                      | 1.05               | 1.05                                         |
| Income                                     | 1.03                                    | 1.03                      | 1.03               | 1.03                                         |
| Residence place (urban)                    | 1.01                                    | 1.01                      | 1.01               | 1.01                                         |
| Political orientation (right)              | 1.41                                    | 1.41                      | 1.40               | 1.41                                         |
| Political orientation (conservative)       | 1.41                                    | 1.41                      | 1.40               | 1.41                                         |
| Religiosity                                | 1.09                                    | 1.09                      | 1.08               | 1.09                                         |
| Social dominance orientation               | 1.11                                    | 1.11                      | 1.10               | 1.11                                         |
| Perceived benefit of science               | 1.12                                    | 1.13                      | 1.11               | 1.14                                         |
| Willingness to be vulnerable to scientists | 1.17                                    | 1.19                      | 1.17               | 1.20                                         |
| Trust in the scientific method             | 1.17                                    | 1.19                      | 1.17               | 1.20                                         |
| GDP per capita                             | 2.18                                    | 2.18                      | 2.19               | 2.21                                         |
| Government expenditure on education        | 1.28                                    | 1.28                      | 1.29               | 1.30                                         |
| Gini index                                 | 1.39                                    | 1.39                      | 1.39               | 1.39                                         |
| PISA science literacy score                | 2.11                                    | 2.11                      | 2.10               | 2.11                                         |
| Academic freedom                           | 1.57                                    | 1.57                      | 1.58               | 1.59                                         |
| Degree of populism in politics             | 1.47                                    | 1.46                      | 1.46               | 1.45                                         |

**Table S19. Variance inflation factors for weighted linear multilevel regression model explaining trust in scientists with perceptions that science's efforts to tackle four goals (i.e., perceived priorities) exceed expectations for scientists to prioritize these goals (i.e., desired priorities)**

| Independent variable                                               | VIF  |
|--------------------------------------------------------------------|------|
| Discrepancy score for “improving public health”                    | 1.25 |
| Discrepancy score for “solving energy problems”                    | 1.29 |
| Discrepancy score for “reducing poverty”                           | 1.06 |
| Discrepancy score for “developing defence and military technology” | 1.09 |
| Science-related populist attitudes                                 | 1.09 |
| Gender (male)                                                      | 1.03 |
| Age                                                                | 1.02 |
| Education (tertiary)                                               | 1.05 |
| Income                                                             | 1.03 |
| Residence place (urban)                                            | 1.01 |
| Political orientation (right)                                      | 1.38 |
| Political orientation (conservative)                               | 1.38 |
| Religiosity                                                        | 1.07 |
| Social dominance orientation                                       | 1.12 |
| Perceived benefit of science                                       | 1.27 |
| Willingness to be vulnerable to scientists                         | 1.39 |
| Trust in the scientific method                                     | 1.36 |
| GDP per capita                                                     | 2.23 |
| Government expenditure on education                                | 1.31 |
| Gini index                                                         | 1.38 |
| PISA science literacy score                                        | 2.10 |
| Academic freedom                                                   | 1.60 |
| Degree of populism in politics                                     | 1.46 |



**Table S20. Valid N across countries for analyses testing means and standard errors across countries**

|                | Weighted means and standard errors of... |                                                 |                                                                 |                                             |                                            |                                              |                                           |                                                    |                                |
|----------------|------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------|--------------------------------------------|----------------------------------------------|-------------------------------------------|----------------------------------------------------|--------------------------------|
|                | Trust in scientists                      | Normative perceptions of scientists' engagement | Desired priority for developing defence and military technology | Competence dimension of trust in scientists | Integrity dimension of trust in scientists | Benevolence dimension of trust in scientists | Openness dimension of trust in scientists | Confidence that scientists act in public interests | Trust in the scientific method |
| Total          | 69,527                                   | 69,510                                          | 69,429                                                          | 69,526                                      | 69,526                                     | 69,522                                       | 69,523                                    | 69,507                                             | 69,521                         |
| Albania        | 343                                      | 343                                             | 343                                                             | 343                                         | 343                                        | 343                                          | 343                                       | 343                                                | 342                            |
| Argentina      | 495                                      | 495                                             | 493                                                             | 495                                         | 495                                        | 495                                          | 495                                       | 495                                                | 495                            |
| Australia      | 3,523                                    | 3,522                                           | 3,522                                                           | 3,523                                       | 3,523                                      | 3,523                                        | 3,523                                     | 3,521                                              | 3,523                          |
| Austria        | 1,035                                    | 1,034                                           | 1,035                                                           | 1,035                                       | 1,035                                      | 1,035                                        | 1,035                                     | 1,035                                              | 1,035                          |
| Bangladesh     | 484                                      | 484                                             | 481                                                             | 484                                         | 484                                        | 484                                          | 484                                       | 484                                                | 484                            |
| Belgium        | 2,035                                    | 2,035                                           | 2,035                                                           | 2,035                                       | 2,035                                      | 2,034                                        | 2,034                                     | 2,032                                              | 2,035                          |
| Bolivia        | 493                                      | 493                                             | 486                                                             | 493                                         | 493                                        | 493                                          | 493                                       | 492                                                | 493                            |
| Botswana       | 401                                      | 401                                             | 399                                                             | 401                                         | 401                                        | 401                                          | 401                                       | 401                                                | 401                            |
| Brazil         | 1,214                                    | 1,214                                           | 1,207                                                           | 1,214                                       | 1,214                                      | 1,214                                        | 1,214                                     | 1,214                                              | 1,214                          |
| Bulgaria       | 497                                      | 497                                             | 497                                                             | 497                                         | 497                                        | 497                                          | 497                                       | 497                                                | 497                            |
| Cameroon       | 473                                      | 472                                             | 472                                                             | 473                                         | 473                                        | 473                                          | 473                                       | 473                                                | 473                            |
| Canada         | 2,507                                    | 2,507                                           | 2,507                                                           | 2,507                                       | 2,507                                      | 2,507                                        | 2,507                                     | 2,507                                              | 2,507                          |
| Chile          | 1,003                                    | 1,001                                           | 1,002                                                           | 1,003                                       | 1,003                                      | 1,003                                        | 1,003                                     | 1,003                                              | 1,003                          |
| China          | 497                                      | 495                                             | 496                                                             | 497                                         | 497                                        | 497                                          | 497                                       | 496                                                | 497                            |
| Colombia       | 498                                      | 499                                             | 495                                                             | 498                                         | 498                                        | 498                                          | 498                                       | 496                                                | 499                            |
| Congo DR       | 389                                      | 389                                             | 389                                                             | 389                                         | 389                                        | 389                                          | 389                                       | 389                                                | 389                            |
| Costa Rica     | 539                                      | 539                                             | 533                                                             | 539                                         | 539                                        | 539                                          | 539                                       | 537                                                | 539                            |
| Cyprus         | 502                                      | 502                                             | 498                                                             | 502                                         | 502                                        | 502                                          | 502                                       | 502                                                | 502                            |
| Czech Republic | 495                                      | 495                                             | 495                                                             | 495                                         | 495                                        | 495                                          | 495                                       | 495                                                | 495                            |
| Côte d'Ivoire  | 466                                      | 465                                             | 462                                                             | 466                                         | 466                                        | 466                                          | 466                                       | 466                                                | 466                            |
| Denmark        | 1,208                                    | 1,208                                           | 1,206                                                           | 1,208                                       | 1,208                                      | 1,208                                        | 1,208                                     | 1,208                                              | 1,208                          |
| Egypt          | 420                                      | 420                                             | 420                                                             | 420                                         | 420                                        | 420                                          | 420                                       | 420                                                | 420                            |
| Ethiopia       | 363                                      | 362                                             | 361                                                             | 363                                         | 363                                        | 363                                          | 363                                       | 363                                                | 363                            |
| Finland        | 998                                      | 998                                             | 997                                                             | 998                                         | 998                                        | 997                                          | 998                                       | 998                                                | 998                            |
| France         | 2,006                                    | 2,003                                           | 2,007                                                           | 2,006                                       | 2,006                                      | 2,006                                        | 2,006                                     | 2,006                                              | 2,005                          |
| Georgia        | 493                                      | 493                                             | 493                                                             | 493                                         | 493                                        | 493                                          | 493                                       | 493                                                | 493                            |
| Germany        | 8,011                                    | 8,011                                           | 8,005                                                           | 8,011                                       | 8,011                                      | 8,011                                        | 8,011                                     | 8,012                                              | 8,011                          |
| Ghana          | 474                                      | 474                                             | 474                                                             | 474                                         | 474                                        | 474                                          | 474                                       | 474                                                | 474                            |
| Greece         | 1,436                                    | 1,436                                           | 1,434                                                           | 1,436                                       | 1,436                                      | 1,436                                        | 1,436                                     | 1,436                                              | 1,436                          |
| Hong Kong      | 594                                      | 594                                             | 594                                                             | 594                                         | 594                                        | 594                                          | 594                                       | 594                                                | 594                            |
| Hungary        | 498                                      | 498                                             | 497                                                             | 498                                         | 498                                        | 498                                          | 498                                       | 497                                                | 497                            |
| India          | 473                                      | 473                                             | 473                                                             | 473                                         | 473                                        | 473                                          | 473                                       | 473                                                | 473                            |
| Indonesia      | 2,056                                    | 2,056                                           | 2,055                                                           | 2,056                                       | 2,056                                      | 2,056                                        | 2,056                                     | 2,056                                              | 2,055                          |
| Ireland        | 498                                      | 498                                             | 498                                                             | 498                                         | 498                                        | 498                                          | 498                                       | 497                                                | 498                            |
| Israel         | 1,010                                    | 1,008                                           | 1,008                                                           | 1,010                                       | 1,010                                      | 1,010                                        | 1,010                                     | 1,010                                              | 1,010                          |
| Italy          | 1,505                                    | 1,505                                           | 1,505                                                           | 1,505                                       | 1,505                                      | 1,505                                        | 1,505                                     | 1,505                                              | 1,505                          |
| Japan          | 1,000                                    | 1,000                                           | 1,000                                                           | 1,000                                       | 1,000                                      | 1,000                                        | 1,000                                     | 1,000                                              | 1,000                          |
| Kazakhstan     | 513                                      | 513                                             | 512                                                             | 513                                         | 513                                        | 513                                          | 513                                       | 513                                                | 513                            |

|                |       |       |       |       |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Kenya          | 456   | 456   | 456   | 456   | 456   | 456   | 456   | 456   | 456   |
| Malaysia       | 985   | 985   | 983   | 985   | 985   | 984   | 984   | 985   | 985   |
| Mexico         | 498   | 498   | 496   | 498   | 498   | 498   | 498   | 497   | 497   |
| Morocco        | 375   | 374   | 373   | 375   | 375   | 375   | 375   | 375   | 375   |
| Netherlands    | 1,410 | 1,409 | 1,403 | 1,410 | 1,410 | 1,410 | 1,410 | 1,409 | 1,409 |
| New Zealand    | 2,009 | 2,009 | 2,006 | 2,008 | 2,008 | 2,008 | 2,009 | 2,009 | 2,009 |
| Nicaragua      | 399   | 399   | 393   | 399   | 399   | 399   | 399   | 398   | 399   |
| Nigeria        | 988   | 988   | 987   | 988   | 988   | 988   | 988   | 988   | 988   |
| Norway         | 494   | 492   | 493   | 494   | 494   | 494   | 494   | 494   | 494   |
| Peru           | 496   | 496   | 495   | 496   | 496   | 496   | 496   | 495   | 496   |
| Philippines    | 545   | 545   | 545   | 545   | 545   | 545   | 545   | 545   | 545   |
| Poland         | 3,002 | 3,002 | 3,000 | 3,002 | 3,002 | 3,002 | 3,002 | 3,002 | 3,002 |
| Portugal       | 499   | 499   | 499   | 499   | 499   | 499   | 499   | 499   | 499   |
| Romania        | 432   | 432   | 430   | 432   | 432   | 432   | 432   | 432   | 432   |
| Russia         | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 | 1,503 |
| Serbia         | 499   | 499   | 498   | 499   | 499   | 499   | 499   | 498   | 498   |
| Slovakia       | 530   | 530   | 530   | 530   | 530   | 530   | 530   | 530   | 530   |
| Slovenia       | 501   | 500   | 501   | 501   | 501   | 501   | 501   | 501   | 501   |
| South Africa   | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 999   |
| South Korea    | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 500   |
| Spain          | 1,009 | 1,009 | 1,008 | 1,009 | 1,009 | 1,009 | 1,009 | 1,009 | 1,009 |
| Sweden         | 1,002 | 1,003 | 1,004 | 1,002 | 1,002 | 1,002 | 1,001 | 1,002 | 1,003 |
| Switzerland    | 997   | 997   | 996   | 997   | 997   | 997   | 997   | 996   | 997   |
| Taiwan         | 1,204 | 1,204 | 1,204 | 1,204 | 1,204 | 1,204 | 1,204 | 1,204 | 1,204 |
| Türkiye        | 500   | 500   | 500   | 500   | 500   | 500   | 500   | 499   | 500   |
| Uganda         | 387   | 387   | 385   | 387   | 387   | 387   | 387   | 387   | 387   |
| Ukraine        | 1,008 | 1,008 | 1,004 | 1,008 | 1,008 | 1,008 | 1,008 | 1,007 | 1,008 |
| United Kingdom | 1,983 | 1,983 | 1,982 | 1,983 | 1,983 | 1,983 | 1,983 | 1,983 | 1,983 |
| United States  | 2,559 | 2,559 | 2,559 | 2,559 | 2,559 | 2,559 | 2,559 | 2,559 | 2,559 |
| Uruguay        | 312   | 312   | 310   | 312   | 312   | 311   | 311   | 312   | 312   |

**Table S21. Valid N across countries for multilevel regressions**

| Weighted multilevel regression model testing the association of... |                                                                                                                 |                                                                                                                 |                                                                                                                 |                                                                                                                 |                                                                        |                                                                                                                      |                                                                                                                            |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
|                                                                    | Trust in scientists with<br>demographic characteristics,<br>attitudes, and country-level<br>indicators (step 1) | Trust in scientists with<br>demographic characteristics,<br>attitudes, and country-level<br>indicators (step 2) | Trust in scientists with<br>demographic characteristics,<br>attitudes, and country-level<br>indicators (step 3) | Trust in scientists with<br>demographic characteristics,<br>attitudes, and country-level<br>indicators (step 4) | Trust in scientists and normative<br>perceptions of science in society | Confidence in scientists with<br>demographic characteristics,<br>attitudes, and country-level<br>indicators (step 1) | Trust in the scientific method with<br>demographic characteristics,<br>attitudes, and country-level<br>indicators (step 1) |
| Total                                                              | 64,458                                                                                                          | 47,664                                                                                                          | 46,707                                                                                                          | 41,629                                                                                                          | 47,646                                                                 | 64,442                                                                                                               | 64,454                                                                                                                     |
| Albania                                                            | 333                                                                                                             | 217                                                                                                             | 217                                                                                                             | 217                                                                                                             | 217                                                                    | 333                                                                                                                  | 332                                                                                                                        |
| Argentina                                                          | 478                                                                                                             | 294                                                                                                             | 294                                                                                                             | 294                                                                                                             | 294                                                                    | 478                                                                                                                  | 478                                                                                                                        |
| Australia                                                          | 3,392                                                                                                           | 2,772                                                                                                           | 2,768                                                                                                           | 2,768                                                                                                           | 2,771                                                                  | 3,390                                                                                                                | 3,392                                                                                                                      |
| Austria                                                            | 972                                                                                                             | 797                                                                                                             | 797                                                                                                             | 797                                                                                                             | 796                                                                    | 972                                                                                                                  | 972                                                                                                                        |
| Bangladesh                                                         | 470                                                                                                             | 289                                                                                                             | 289                                                                                                             | 0                                                                                                               | 289                                                                    | 470                                                                                                                  | 470                                                                                                                        |
| Belgium                                                            | 1,779                                                                                                           | 1,273                                                                                                           | 1,273                                                                                                           | 1,273                                                                                                           | 1,273                                                                  | 1,778                                                                                                                | 1,779                                                                                                                      |
| Bolivia                                                            | 481                                                                                                             | 303                                                                                                             | 302                                                                                                             | 0                                                                                                               | 302                                                                    | 480                                                                                                                  | 481                                                                                                                        |
| Botswana                                                           | 379                                                                                                             | 195                                                                                                             | 195                                                                                                             | 0                                                                                                               | 195                                                                    | 379                                                                                                                  | 379                                                                                                                        |
| Brazil                                                             | 1,204                                                                                                           | 890                                                                                                             | 889                                                                                                             | 889                                                                                                             | 889                                                                    | 1,204                                                                                                                | 1,204                                                                                                                      |
| Bulgaria                                                           | 482                                                                                                             | 344                                                                                                             | 343                                                                                                             | 343                                                                                                             | 343                                                                    | 482                                                                                                                  | 482                                                                                                                        |
| Cameroon                                                           | 466                                                                                                             | 267                                                                                                             | 267                                                                                                             | 0                                                                                                               | 266                                                                    | 466                                                                                                                  | 466                                                                                                                        |
| Canada                                                             | 2,416                                                                                                           | 1,979                                                                                                           | 1,979                                                                                                           | 1,979                                                                                                           | 1,979                                                                  | 2,416                                                                                                                | 2,416                                                                                                                      |
| Chile                                                              | 989                                                                                                             | 725                                                                                                             | 725                                                                                                             | 725                                                                                                             | 725                                                                    | 989                                                                                                                  | 989                                                                                                                        |
| China                                                              | 491                                                                                                             | 365                                                                                                             | 365                                                                                                             | 365                                                                                                             | 364                                                                    | 490                                                                                                                  | 491                                                                                                                        |
| Colombia                                                           | 460                                                                                                             | 316                                                                                                             | 316                                                                                                             | 316                                                                                                             | 316                                                                    | 458                                                                                                                  | 461                                                                                                                        |
| Congo DR                                                           | 379                                                                                                             | 300                                                                                                             | 300                                                                                                             | 0                                                                                                               | 300                                                                    | 379                                                                                                                  | 379                                                                                                                        |
| Costa Rica                                                         | 524                                                                                                             | 337                                                                                                             | 336                                                                                                             | 336                                                                                                             | 337                                                                    | 522                                                                                                                  | 524                                                                                                                        |
| Cyprus                                                             | 455                                                                                                             | 217                                                                                                             | 217                                                                                                             | 0                                                                                                               | 217                                                                    | 455                                                                                                                  | 455                                                                                                                        |
| Czech Republic                                                     | 467                                                                                                             | 377                                                                                                             | 376                                                                                                             | 376                                                                                                             | 376                                                                    | 467                                                                                                                  | 467                                                                                                                        |
| Côte d'Ivoire                                                      | 483                                                                                                             | 357                                                                                                             | 357                                                                                                             | 357                                                                                                             | 357                                                                    | 483                                                                                                                  | 483                                                                                                                        |
| Denmark                                                            | 1,096                                                                                                           | 784                                                                                                             | 784                                                                                                             | 784                                                                                                             | 784                                                                    | 1,096                                                                                                                | 1,096                                                                                                                      |
| Egypt                                                              | 416                                                                                                             | 311                                                                                                             | 311                                                                                                             | 0                                                                                                               | 311                                                                    | 416                                                                                                                  | 416                                                                                                                        |
| Ethiopia                                                           | 358                                                                                                             | 188                                                                                                             | 188                                                                                                             | 0                                                                                                               | 188                                                                    | 358                                                                                                                  | 358                                                                                                                        |
| Finland                                                            | 490                                                                                                             | 363                                                                                                             | 363                                                                                                             | 363                                                                                                             | 363                                                                    | 490                                                                                                                  | 490                                                                                                                        |
| France                                                             | 1,907                                                                                                           | 1,220                                                                                                           | 1,219                                                                                                           | 1,219                                                                                                           | 1,220                                                                  | 1,907                                                                                                                | 1,906                                                                                                                      |
| Georgia                                                            | 490                                                                                                             | 361                                                                                                             | 361                                                                                                             | 361                                                                                                             | 361                                                                    | 490                                                                                                                  | 490                                                                                                                        |
| Germany                                                            | 6,940                                                                                                           | 5,920                                                                                                           | 5,918                                                                                                           | 5,918                                                                                                           | 5,918                                                                  | 6,941                                                                                                                | 6,941                                                                                                                      |
| Ghana                                                              | 464                                                                                                             | 263                                                                                                             | 263                                                                                                             | 0                                                                                                               | 263                                                                    | 464                                                                                                                  | 464                                                                                                                        |
| Greece                                                             | 1,290                                                                                                           | 992                                                                                                             | 991                                                                                                             | 991                                                                                                             | 991                                                                    | 1,290                                                                                                                | 1,290                                                                                                                      |
| Hong Kong                                                          | 586                                                                                                             | 398                                                                                                             | 397                                                                                                             | 397                                                                                                             | 398                                                                    | 586                                                                                                                  | 586                                                                                                                        |
| Hungary                                                            | 473                                                                                                             | 325                                                                                                             | 324                                                                                                             | 324                                                                                                             | 325                                                                    | 472                                                                                                                  | 472                                                                                                                        |
| India                                                              | 469                                                                                                             | 401                                                                                                             | 401                                                                                                             | 0                                                                                                               | 401                                                                    | 469                                                                                                                  | 469                                                                                                                        |
| Indonesia                                                          | 2,014                                                                                                           | 1,546                                                                                                           | 1,545                                                                                                           | 1,545                                                                                                           | 1,546                                                                  | 2,014                                                                                                                | 2,013                                                                                                                      |
| Ireland                                                            | 464                                                                                                             | 327                                                                                                             | 327                                                                                                             | 327                                                                                                             | 327                                                                    | 463                                                                                                                  | 464                                                                                                                        |
| Israel                                                             | 940                                                                                                             | 872                                                                                                             | 872                                                                                                             | 872                                                                                                             | 870                                                                    | 940                                                                                                                  | 940                                                                                                                        |
| Italy                                                              | 1,188                                                                                                           | 899                                                                                                             | 899                                                                                                             | 899                                                                                                             | 899                                                                    | 1,188                                                                                                                | 1,188                                                                                                                      |
| Japan                                                              | 906                                                                                                             | 515                                                                                                             | 515                                                                                                             | 515                                                                                                             | 515                                                                    | 906                                                                                                                  | 906                                                                                                                        |
| Kazakhstan                                                         | 506                                                                                                             | 261                                                                                                             | 261                                                                                                             | 261                                                                                                             | 261                                                                    | 506                                                                                                                  | 506                                                                                                                        |

|                |       |       |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| Kenya          | 447   | 355   | 355   | 0     | 355   | 447   | 447   |
| Malaysia       | 972   | 0     | 0     | 0     |       | 972   | 972   |
| Mexico         | 494   | 392   | 0     | 0     | 392   | 493   | 493   |
| Morocco        | 367   | 171   | 171   | 171   | 171   | 367   | 367   |
| Netherlands    | 1,257 | 879   | 336   | 336   | 878   | 1,256 | 1,256 |
| New Zealand    | 1,887 | 1,515 | 1,513 | 1,513 | 1,515 | 1,887 | 1,887 |
| Nicaragua      | 387   | 201   | 201   | 0     | 201   | 386   | 387   |
| Nigeria        | 966   | 784   | 784   | 0     | 784   | 966   | 966   |
| Norway         | 438   | 328   | 327   | 327   | 327   | 438   | 438   |
| Peru           | 472   | 341   | 341   | 341   | 341   | 472   | 472   |
| Philippines    | 540   | 434   | 434   | 434   | 434   | 540   | 540   |
| Poland         | 2,861 | 2,184 | 2,184 | 2,184 | 2,184 | 2,861 | 2,861 |
| Portugal       | 425   | 316   | 316   | 316   | 316   | 425   | 425   |
| Romania        | 400   | 363   | 363   | 363   | 363   | 400   | 400   |
| Russia         | 1,471 | 872   | 872   | 872   | 872   | 1,471 | 1,471 |
| Serbia         | 476   | 308   | 307   | 307   | 308   | 476   | 475   |
| Slovakia       | 502   | 362   | 362   | 362   | 362   | 502   | 502   |
| Slovenia       | 479   | 332   | 332   | 332   | 331   | 479   | 479   |
| South Africa   | 948   | 773   | 773   | 0     | 773   | 948   | 948   |
| South Korea    | 476   | 404   | 404   | 404   | 404   | 476   | 476   |
| Spain          | 943   | 773   | 773   | 773   | 773   | 943   | 943   |
| Sweden         | 695   | 552   | 552   | 552   | 552   | 695   | 696   |
| Switzerland    | 899   | 714   | 714   | 714   | 714   | 898   | 899   |
| Taiwan         | 1,116 | 756   | 755   | 755   | 755   | 1,116 | 1,116 |
| Türkiye        | 485   | 428   | 428   | 428   | 428   | 484   | 485   |
| Uganda         | 368   | 232   | 232   | 0     | 232   | 368   | 368   |
| Ukraine        | 992   | 397   | 397   | 397   | 397   | 991   | 992   |
| United Kingdom | 1,848 | 1,527 | 1,527 | 1,527 | 1,527 | 1,848 | 1,848 |
| United States  | 2,466 | 2,147 | 2,147 | 2,147 | 2,147 | 2,466 | 2,466 |
| Uruguay        | 284   | 264   | 263   | 263   | 263   | 284   | 284   |

**Table S22. Overview IRB applications for ethics approval**

| Country of data collection | Surname lead collaborator(s) | Partner institution                                                    | Outcome / exception                                                   | IRB reference         |
|----------------------------|------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------|
| Albania                    | Bajrami                      | University of Tirana                                                   | Harvard IRB approval sufficient                                       | n/a                   |
| Argentina                  | Nobre                        | Universidade do Estado de Minas Gerais                                 | Harvard IRB approval sufficient                                       | n/a                   |
| Australia                  | Stanley                      | Australian National University                                         | IRB approval granted                                                  | 2022 506              |
| Austria                    | Lamm                         | University of Vienna                                                   | IRB approval granted                                                  | EK Nr: 000412         |
| Bangladesh                 | Islam                        | Jahangirnagar University                                               | Harvard IRB approval sufficient                                       | n/a                   |
| Belgium                    | De Peuter                    | KU Leuven                                                              | IRB approval granted                                                  | G-2022-5777-R2(MAR)   |
| Bolivia                    | Cologna                      | Harvard University                                                     | Harvard IRB approval sufficient                                       | n/a                   |
| Botswana                   | Kotcher                      | George Mason University                                                | Exempt from full IRB review                                           | IRBNet #2008429       |
|                            | Bati                         | Health Research and Development Division, Ministry of Health, Botswana | IRB approval granted                                                  | HPRD: 6/14/1          |
| Brazil                     | Azevedo                      | Friedrich Schiller University Jena                                     | Harvard IRB approval sufficient                                       | n/a                   |
| Bulgaria                   | Lamm                         | University of Vienna                                                   | IRB approval granted                                                  | EK Nr: 000412         |
| Cameroon                   | Ntui-Njock                   | University of Buea                                                     | IRB approval granted                                                  | 2196-11               |
| Canada                     | Palmer-Hague                 | Trinity Western University                                             | Harvard IRB approval sufficient                                       | n/a                   |
|                            | Breeden                      | Pomona College                                                         | Exempt from full IRB review                                           | #23-01-04             |
|                            | Goddard                      | University of Alberta                                                  | IRB approval granted                                                  | Pro00128481           |
| Chile                      | Garrido-Vásquez              | Universidad de Concepción                                              | IRB approval granted                                                  | CEBB 1372-2022        |
| China                      | Xia                          | Tongji University                                                      | Harvard IRB approval sufficient                                       | n/a                   |
| Colombia                   | Douglas                      | University of Kent                                                     | IRB approval granted                                                  | 8016                  |
| Congo DR                   | Späth                        | Université Officielle de Bukavu                                        | IRB approval granted                                                  | UOB/FSSPA/CFE/05/2023 |
| Costa Rica                 | Altenmüller                  | LMU Munich                                                             | No IRB application required as per national/institutional regulations | n/a                   |
| Côte d'Ivoire              | Toko                         | Mohammed VI Polytechnic University                                     | IRB approval granted                                                  | n/a                   |
| Cyprus                     | Kyza                         | Cyprus University of Technology                                        | Harvard IRB approval sufficient                                       | n/a                   |

|                |                  |                                                         |                                                                       |                            |
|----------------|------------------|---------------------------------------------------------|-----------------------------------------------------------------------|----------------------------|
| Czech Republic | Klabíková Rábová | Charles University                                      | Harvard IRB approval sufficient                                       | n/a                        |
| Denmark        | Fuglsang         | Aarhus University                                       | Harvard IRB approval sufficient                                       | n/a                        |
| Egypt          | Aldoh            | University of Amsterdam                                 | IRB approval granted                                                  | FMG-1067                   |
| Ethiopia       | Debnath          | University of Cambridge                                 | Exempt from full IRB review                                           | 5051.145                   |
| Finland        | Koivula          | University of Turku                                     | No IRB application required as per national/institutional regulations | n/a                        |
| France         | Bret             | Université Paris Nanterre (CER-PN)                      | IRB approval granted                                                  | n/a                        |
| Georgia        | Pisareva         | KIMEP University                                        | Harvard IRB approval sufficient                                       | n/a                        |
| Germany        | Von Bubnoff      | Rhine-Waal University                                   | No IRB application required as per national/institutional regulations | n/a                        |
|                | Kojan            | University of Lübeck                                    | IRB approval granted                                                  | 2022-632                   |
|                | Dries            | Harding Center for Risk Literacy, University of Potsdam | Harvard IRB approval sufficient                                       | n/a                        |
|                | Genschow         | Leuphana University Lüneburg                            | Harvard IRB approval sufficient                                       | n/a                        |
|                | Fischer          | Leibniz Institut für Wissensmedien                      | Declared exempt from full IRB review                                  | n/a                        |
|                | Metag            | University of Münster                                   | Harvard IRB approval sufficient                                       | n/a                        |
|                | Rödder           | Universität Hamburg                                     | Harvard IRB approval sufficient                                       | n/a                        |
|                | Dohle            | University of Bonn                                      | No IRB application required as per national/institutional regulations | n/a                        |
| Ghana          | Feuerriegel      | LMU Munich                                              | Harvard IRB approval sufficient                                       | n/a                        |
| Greece         | Gkinopoulos      | University of Warsaw                                    | IRB approval granted                                                  | n/a                        |
|                | Kuppens          | University of Groningen                                 | Declared exempt from full IRB review                                  | PSY-2223-S-0167            |
| Hong Kong      | Huang            | City University of Hong Kong                            | IRB approval granted                                                  | HU-STA-00000276            |
| Hungary        | Szaszi           | Eötvös Loránd University                                | IRB approval granted                                                  | 2022/472                   |
| India          | Debnath          | University of Cambridge                                 | Declared exempt from full IRB review                                  | 5051.145                   |
| Indonesia      | Gordon           | Sunan Kalijaga State Islamic University                 | IRB approval granted                                                  | B-292a/Un.02/L3/TL/01/2023 |
|                | Facciani         | University of Notre Dame                                | No IRB application required as per                                    | n/a                        |

|             |                     |                                                                                  |                                                                       |                      |
|-------------|---------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------|
|             |                     |                                                                                  | national/institutional regulations                                    |                      |
| Ireland     | Roche               | Trinity College Dublin                                                           | IRB approval granted                                                  | n/a                  |
| Israel      | Herziger            | Technion – Israel Institute of Technology                                        | IRB approval granted                                                  | 135260               |
| Italy       | Bertsou             | University of St. Gallen                                                         | IRB approval granted                                                  | HSG-EC-020221101     |
| Japan       | Tanaka              | Waseda University                                                                | IRB approval granted                                                  | #2022-446            |
| Kazakhstan  | Ibadildin           | KIMEP University                                                                 | IRB approval granted                                                  | n/a                  |
| Kenya       | Amollo              | National Commission for Science, Innovation and Technology                       | IRB approval granted                                                  | EUISERC/APP/228/2023 |
|             |                     | Egerton University                                                               | IRB approval granted                                                  | EUISERC/APP/244/2023 |
| Malaysia    | Facciani            | University of Notre Dame                                                         | No IRB application required as per national/institutional regulations | n/a                  |
| Mexico      | Hernández-Mondragón | Center for Research and Advanced Studies of the National Polytechnic Institute   | Harvard IRB approval sufficient                                       | n/a                  |
| Morocco     | Jeddi               | Mohammed VI Polytechnic University                                               | IRB approval granted                                                  | n/a                  |
| Netherlands | Kuppens             | University of Groningen                                                          | Declared exempt from full IRB review                                  | PSY-2223-S-0167      |
| New Zealand | Stanley             | Australian National University                                                   | IRB approval granted                                                  | 2022 506             |
|             | Milfont             | University of Waikato                                                            | IRB approval granted                                                  | FS2022-64            |
| Nicaragua   | Röer                | Witten/Herdecke University                                                       | Harvard IRB approval sufficient                                       | n/a                  |
| Nigeria     | Von Bubnoff         | Rhine-Waal University                                                            | Declared exempt from full IRB review                                  | n/a                  |
| Norway      | Kristiansen         | University of Bergen                                                             | Harvard IRB approval sufficient                                       | n/a                  |
| Peru        | Monge               | Ernest Manheim Public Opinion Laboratory                                         | IRB approval granted                                                  | D20230104            |
| Philippines | Cases               | College of Social Sciences and Philosophy, University of the Philippines Diliman | IRB approval granted                                                  | CSSPERB-2023-005     |
| Poland      | Hensel              | University of Warsaw                                                             | IRB approval granted                                                  | n/a                  |
|             | Czarnek             | Jagiellonian University                                                          | IRB approval granted                                                  | KE/1_2023            |
| Portugal    | Santos              | Institute of Environmental Health Lisbon of the School of Medicine               | Harvard IRB approval sufficient                                       | n/a                  |
| Romania     | Etienne             | VU University Amsterdam                                                          | Declared exempt from full IRB review                                  | 2023-1-30-434        |
| Russia      | Grigoryev           | HSE University                                                                   | IRB approval granted                                                  | 01/10.2022           |
| Serbia      | Lazić               | University of Belgrade                                                           | IRB approval granted                                                  | #2022-76             |

|                |                 |                                                               |                                                                       |                      |
|----------------|-----------------|---------------------------------------------------------------|-----------------------------------------------------------------------|----------------------|
| Slovakia       | Buchel          | Institute for Sociology of the Slovak Academy of Sciences     | IRB approval granted                                                  | IRB22-1046           |
| Slovenia       | Muršič          | University of Ljubljana                                       | Harvard IRB approval sufficient                                       | n/a                  |
| South Africa   | Joubert         | Stellenbosch University                                       | IRB approval granted                                                  | SU - SEBR - 26177    |
| South Korea    | Scoggins        | KIMEP University                                              | Harvard IRB approval sufficient                                       | n/a                  |
| Spain          | Cabrera Alvarez | University of Essex                                           | Harvard IRB approval sufficient                                       | n/a                  |
| Sweden         | Parnamets       | Karolinska Institutet                                         | No IRB application required as per national/institutional regulations | n/a                  |
| Switzerland    | Freundt         | University of Fribourg                                        | Harvard IRB approval sufficient                                       | n/a                  |
| Taiwan         | Rauchfleisch    | National Taiwan University                                    | IRB approval granted                                                  | 202312HS006          |
| Türkiye        | Çoksan          | Erzurum Technical University                                  | Harvard IRB approval sufficient                                       | n/a                  |
| Uganda         | Namutebi        | Makerere University College of Humanities and Social Sciences | IRB approval granted                                                  | MAKSSREC 05.2023.680 |
| Ukraine        | Ploszaj         | University of Warsaw                                          | Harvard IRB approval sufficient                                       | n/a                  |
| United Kingdom | Bhatiya         | University of Birmingham                                      | Harvard IRB approval sufficient                                       | n/a                  |
|                | Debnath         | University of Cambridge                                       | Declared exempt from full IRB review                                  | 5051.145             |
|                | Douglas         | University of Kent                                            | IRB approval granted                                                  | 8016                 |
|                | Alabrese        | University of Bath                                            | Harvard IRB approval sufficient                                       | n/a                  |
|                | Ulug            | University of Sussex                                          | Harvard IRB approval sufficient                                       | n/a                  |
| USA            | Motta           | Boston University                                             | Declared exempt from full IRB review                                  | H-43232              |
|                | Vilares         | University of Minnesota                                       | IRB approval granted                                                  | STUDY00005811        |
| Uruguay        | Etienne         | VU University Amsterdam                                       | Declared exempt from full IRB review                                  | 2023-1-30-546        |

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