Explaining Atheism: Wave 2 Codebook

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# Welcome

\*\* This is a living document as is not necessarily complete.\*\*

A timestamped final codebook will be published alongside the dataset when this is released

Welcome to the codebook for the second of the Explaining Atheism project. Here you will find all the information about what is in the accompanying dataset. This is a more focussed examination of variables tested in wave 1 (see here) across more countries.

### Data

This dataset is being collected via international surveys in Brazil, Japan, China, the United States, Denmark annd the UK.

The dataset is comprised of two surveys of possible explanations of belief and non-belief, with the same belief measures included in both surveys. Each survey is run in a nationally representative sample (age, sex, region) of 1250 participants in each of the six countries.

### Additional Information

All information about the project, including scorings scripts for each measures used, is available on our Figshare page upon release, along with on my personal GitHub. This includes links to pre-registrations, materials and the data itself.

If you have any questions or want any further information feel free to contact me at c.russell@qub.ac.uk, or get in touch via my GitHub or Twitter linked on the top left!

# 1. Rebelliousness

**Cluster:** Morals/Values

## 1.1 Measure

The rebelliousness measure is a custom measure devised to examine the subscales pro-active rebelliousness and reactive rebelliousness identified by McDermott (2001). After wave 1 we exluded what we termed the “Activism” subscale and only included the “Trolling” subscale in this round.

### Modifications

## 1.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and state to what extent they apply to you. There are no right or wrong answers and your responses remain anonymous.*

### Items

| Qlabel | **Subscale** | question |
| --- | --- | --- |
| reb\_01 | Trolling | I find it exciting to poke fun at people |
| reb\_02 | Trolling | I find it exciting to poke fun at authority |
| reb\_03 | Trolling | I experience a thrill when disobeying authority |
| reb\_04 | Trolling | I experience an urge to disobey social rules |

### Coding

This questionnaire follows our standard coding for extent based measures, with To No Extent At All = 1, and To a Great Extent = 7.

| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| --- | --- | --- | --- | --- | --- | --- |
| To No Extent At All | To a Slight Extent | To a Mild Extent | To a Moderate Extent | To an Appreciable Extent | To a Considerable Extent | To a Great Extent |

No items are reverse coded

### 1.2.1 Scoring

The following variables are derived from this measure.

# 2. CREDs

**Cluster:** Socialisation

## 2.1 Measure

The measure is a further development of the CREDs measure used by Lanman & Buhrmester (2017).

### Modifications

The CRED measures that we use vary across the countries within our survey, as such the following sections are subset by nation. Specifically we have different questions for the historically Christian nations (Brazil, Denmark, United Kingdom, United States), Japan, and China, and we have nation specific examples in some cases.

In this round we added an additional question on perceived parental sincerity- cred\_32.

## 2.2 Implementation

### Question wording

| Questions | Question Text |
| --- | --- |
| intro | The following questions ask about experiences during your upbringing that relate to God. |
| cred\_01 - cred\_06 | These questions ask about your perceptions of your primary caregiver or caregivers (i.e., parents or guardians). Please answer each of the following according to your overall impression of your caregiver(s) on the following scale: |
| cred\_07 | *Stand alone question* |
| cred\_26 - cred\_31 | These questions ask about your perceptions of your local area growing up (i.e., hometown, school). Please answer each of the following according to your overall impression of your caregiver(s) on the following scale: |

### Items

The question items were as follows:

| Qlabel | question | response |
| --- | --- | --- |
| cred\_01 | To what extent did your caregivers visit places sacred to God (e.g. temple, church, synagogue, mosque)? | extent |
| cred\_02 | To what extent did your caregivers engage in volunteer/charity work associated with their devotion to God. (e.g. Habitat for humanity, Salvation Army, Catholic Relief Services, local religious charities)? | extent |
| cred\_03 | To what extent did your caregivers give financial donations to Godly causes (e.g. to churches,emples, mosques, charities, etc.)? | extent |
| cred\_04 | To what extent did your caregivers make personal sacrifices as part of their devotion to God (e.g. fasting, abstaining from alcohol and caffeine, giving away wealth, etc.)? | extent |
| cred\_05 | To what extent did your caregivers perform acts of devotion to God in the home (e.g. Bible readings, visible prayer, etc.)? | extent |
| cred\_06 | To what extent do you think their devotion to God influenced important decisions in their lives (e.g. marriage, divorce, moving, changing jobs, having children, etc.)? | extent |
| cred\_32 | How sincere did you feel your caregivers were in their devotion to God? | sincerity |

|  |  |  |
| --- | --- | --- |
| cred\_07 | Did you attend or participate in any groups devoted to God] you were growing up? (e.g. churches, religious organisations, camps, etc.)  If yes, you will have the ability to answer for 2 different groups below. | yes/no |
| cred\_08 | Please name/describe the first group | **open** |
| cred\_09 | Did this group have leadership figures such as priests, pastors, imams, head counsellors, rabbis, gurus, etc.? | yes/no |
| cred\_10 | How sincere did you feel the leaders of this group were in their devotion to God? | sincerity |
| cred\_11 | To what extent did the leaders of this group make personal sacrifices as part of their devotion to God? (e.g. fasting, celibacy, abstaining from alcohol and/or caffeine) | extent |
| cred\_12 | How sincere did you feel the members of this group were in their devotion to God? | sincerity |
| cred\_13 | To what extent did members of this group engage in charitable work together? | extent |
| cred\_14 | To what extent did members of this group express emotion during group gatherings? | extent |
| cred\_15 | How often did members of this group appear to be in altered states of consciousness such as speaking in tongues, trance, or possession? | frequency |
| cred\_16 | To what extent would members of this group wear particular clothes or clothing styles? | extent |
| cred\_17 - 25 | REPEAT CRED 08 - 16 | - |

|  |  |  |
| --- | --- | --- |
| cred\_26 | What percentage of people in your hometown/city do you think believed in God? | percentage |
| cred\_27 | To what extent did believers in God in your hometown demonstrate their beliefs in everyday life? | extent |
| cred\_28 | How sincere did you feel the believers in God in your hometown were in their devotion to God? | sincerity |
| cred\_29 | What percentage of people in your high school do you think believed in God? | percentage |
| cred\_30 | To what extent did the believers in God in your high school demonstrate their beliefs in everyday life? | extent |
| cred\_31 | How sincere did you feel the believers in God in your high school were in their devotion to God? | sincerity |

### 2.2.1 Country Specific Variations:

### Coding

The above questions had a number of different response options, with no reverse coding:

#### 2.2.1.1 Yes/No

| 0 | 1 |
| --- | --- |
| No | Yes |

#### 2.2.1.2 Frequency

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| Never | Very Infrequently | Infrequently | Sometimes | Frequently | Very Frequently | Always |

#### 2.2.1.3 Extent

| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| --- | --- | --- | --- | --- | --- | --- |
| To No Extent At All |  |  |  |  |  | To a Great Extent |

#### 2.2.1.4 Sincerity

| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| --- | --- | --- | --- | --- | --- | --- |
| Completely Insincere | Very Insincere | Insincere | Neutral | Sincere | Very Sincere | Completely Sincere |

#### 2.2.1.5 Percentage

| 0 -100% |
| --- |

### 2.2.2 Scoring

The following variables are derived from this measure:

# 3. Normativity of Religion

## 3.1 Measure

### Modifications

## 3.2 Implementation

### Question wording

Participants are presented with the following text:

*People are a part of a number of groups that affect their lives, such as nation-states, ethnic groups, companies, friend/peer groups, and hobby groups (e.g. sports/music fandoms). For these groups, being a good, respected member often comes with expectations. Below, we will ask you how important certain personal qualities are to being a good, respected member of the groups to which you belong.*

Along with subscale specific text:

| **Subscale** | text | response |
| --- | --- | --- |
| Nation | The following questions will ask you about your nation. There are no right or wrong answers and your responses remain anonymous. | extent |
| Ethnic | The following questions will ask you about the ethnic group with which you identify (e.g. Black British, White (other), Han, Japanese, Pacific Islander). There are no right or wrong answers and your responses remain anonymous. | extent |
| Friends/peers | The following questions will ask you about your friendship/ peer group. There are no right or wrong answers and your responses remain anonymous. | extent |
| Choose own | The following questions will ask you about a hobby or interest group that is important to you (e.g. music, fashion, gaming communities). There are no right or wrong answers and your responses remain anonymous. | extent |

### Items

The question items were as follows, where [COUNTRY] is the name of the country:

| Qlabel | **Subscale** | question | response |
| --- | --- | --- | --- |
| norm\_01 | Nation | To what extent is it expected for a citizen of [COUNTRY] to believe in God? | extent |
| norm\_02 | Nation | To what extent is it expected for a citizen of [COUNTRY] to perform rituals honouring God? | extent |
| norm\_03 | Nation | To what extent is it expected for a citizen of [COUNTRY] to belong to a religion? | extent |
| norm\_04 | Ethnic | To what extent is it expected of people in your ethnic group to believe in God? | extent |
| norm\_05 | Ethnic | To what extent is it expected of people in your ethnic group to perform rituals honouring God? | extent |
| norm\_06 | Ethnic | To what extent is it expected of people in your ethnic group to belong to a religion? | extent |
| norm\_07 | Friends/peers | To what extent is it expected amongst your friends to believe in God? | extent |
| norm\_08 | Friends/peers | To what extent is it expected amongst your friends to perform rituals honouring God? | extent |
| norm\_09 | Friends/peers | To what extent is it expected amongst your friends to belong to a religion? | extent |
| norm\_10 | Choose own | To what extent is it expected for members of the hobby or interest group most important to you to believe in God? | extent |
| norm\_11 | Choose own | To what extent is it expected for members of the hobby or interest group most important to you to perform rituals for God? | extent |
| norm\_12 | Choose own | To what extent is it expected for members of the hobby or interest group most important to you to belong to a religion? | extent |

### Coding

This questionnaire follows our standard coding for extent based measures, with To No Extent At All = 1, and To a Great Extent = 7.

| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| --- | --- | --- | --- | --- | --- | --- |
| To No Extent At All | To a Slight Extent | To a Mild Extent | To a Moderate Extent | To an Appreciable Extent | To a Considerable Extent | To a Great Extent |

No items are reverse coded

### 3.2.1 Scoring

# 4. Collectivism

## 4.1 Measure

The collectivism measure used was that of Triandis (1994), available in Gelfand & Realo (1999).

### Modifications

For consistency with our other measures we used a 7-point likert scale for agreement, where the original measure used a 9-point scale.

## 4.2 Implementation

### Question wording

Participants read the following text:

*We want to know if you agree or disagree with the following statements. The statements sometimes refer to your ‘group,’ which refers to your group of friends or any other group that you are involved in. Read each one carefully. Indicate your agreement or disagreement with the statement by using the following scale:*

### Items

| Qlabel | question |
| --- | --- |
| ic\_01 | It is important for me to maintain harmony within my group |
| ic\_02 | I would sacrifice an activity that I enjoy very much if my family did not approve of it. |
| ic\_03 | Children should be taught to place duty before pleasure. |
| ic\_04 | My happiness depends very much on the happiness of those around  me. |
| ic\_05 | The well-being of my group is a very important concern for me |
| ic\_06 | I really like to cooperate with others |
| ic\_07 | I usually sacrifice my self-interest for the benefit of my group |
| ic\_08 | Before making a decision, I like to consult with many others. |
| ic\_09 | Children should feel honored if their parents receive a distinguished  award |
| ic\_10 | If any of my relatives were in financial difficulty, I would help them  even if it made my life difficult. |
| ic\_11 | If a member of my group gets a prize, I would feel proud. |
| ic\_12 | Sharing little things with my group makes me very happy |
| ic\_13 | I feel we should keep our aging parents with us at home |
| ic\_14 | To me, pleasure is spending time with others |
| ic\_15 | I hate to disagree with others in my group |
| ic\_16 | I would do what would please my family, even if I detested the activity |

### Coding

This questionnaire used our standard response scale for agreement.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

No items are reverse coded

### Scoring

The following variables were derived from this measure

## 4.3

# 5. Existential Insecurity

**Cluster:** Motivational

## 5.1 Measure

The initial existential insecurity measures were derived from those used by Baimel et al. (2022) and by Willard & Cingl (2017).

### Modifications

The food security measure from Baimel et al. (2022) was combined with financial and physical security from Willard & Cingl (2017), these were asked for ‘recently’ and ‘for the forthcoming months’.

In this wave we only included questions pertaining to childhood.

## 5.2 Implementation

### Question wording

The question wording was as follows:

| Questions | Question Text |
| --- | --- |
| es\_15 - es\_21 | *When growing up did you:* |

### Items

The question items were as follows:

**Existential Security**

| Qlabel | question |
| --- | --- |
| es\_15 | worry that your household may not able to buy or produce enough food to eat? |
| es\_16 | feel that your household may not be able to afford to buy items you need |
| es\_17 | worry that your household may not have enough money |
| es\_18 | worry about members of your household losing their job |
| es\_19 | feel you will be safe walking alone in your local area after dark |
| es\_20 | worry about being burgled |
| es\_21 | worry about being a victim of violent crime |

### Coding

Items on the existential security subscale use the following frequency based Likert scale:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| never | very infrequently | infrequently | sometimes | frequently | very frequently | always |

es\_19 is reverse coded

### 5.2.1 Scoring

The following variables are derived form this measure:

# 6. Non-theistic Socialisation

**Cluster:** Socialisation

## 6.1 Measure

### Modifications

## 6.2 Implementation

The Non-theistic Socialisation measure that we use vary across the countries within our survey, as such the following sections are subset by nation. Specifically we have different questions for the historically Christian nations (Brazil, Denmark, United Kingdom, United States), and for Japan and China.

### Question wording

| Questions | Question Text |
| --- | --- |
| intro | To what extent did important people in your upbringing speak against the idea that God exists? That is, to what extent, adding it all up, did the important people in your life – such as your parents, teachers, and church officials (if any) – do the things listed below as you were growing up? |

### Items

The items were as follows:

| Qlabel | question | response |
| --- | --- | --- |
| nts\_01 | State that God does not exist? | extent |
| nts\_02 | State that prayers to God do not work? | extent |
| nts\_03 | Mock or joke about people’s religious belief? | extent |
| nts\_04 | State that belief in God is not necessary for morality? | extent |
| nts\_05 | State that one should not be religious? | extent |
| nts\_06 | State that there are no good reasons to believe in God? | extent |
| nts\_07 | State that religious belief does more harm than good in the world? | extent |
| nts\_08 | State that religious practices are irrational? | extent |

### Coding

This measure uses our standard response scale for extent.

#### 6.2.0.1 Extent

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| To No Extent At All |  |  |  |  |  | To a Great Extent |

No items were reverse coded

### 6.2.1 Scoring

The following variables were derived from this measure:

## 6.3

# 7. Religious Emphasis

## 7.1 Measure

## 7.2 Implementation

The Religious Emphasis measure that we use vary across the countries within our survey. Specifically we have different question wording for the historically Christian nations (Brazil, Denmark, United Kingdom, United States), Japan, and China.

### Question wording

| Questions | Question Text |
| --- | --- |
| intro | To what extent did you have an upbringing devoted to God? That is, to what extent, adding it all up, did the important people in your life – such as your parents, teachers, and church officials (if any) – do the things listed below as you were growing up? |

## 7.3 Items

The items were as follows:

| Qlabel | question | response |
| --- | --- | --- |
| re\_01 | Review the teachings of Christianity, Judaism, Islam, Hinduism or another similar tradition at home? | extent |
| re\_02 | Emphasize that you should read scripture or books associated with Christianity, Judaism, Islam, Hinduism or another similar tradition? | extent |
| re\_03 | Discuss moral do’s and don’ts in relation to God? | extent |
| re\_04 | Tell stories about God? | extent |
| re\_05 | Talk about the afterlife? | extent |
| re\_06 | Emphasise that spiritual matters were of high importance? | extent |
| re\_07 | Relate stories about God to contemporary life? | extent |
| re\_08 | Teach you to obey the wishes of God? | extent |
| re\_09 | Teach you to obey the persons who act as representatives of God (e.g. priests, ministers, rabbis, imams, etc.)? | extent |

### Coding

This measure used our standard response scale for extent.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| To No Extent At All | To a Slight Extent | To a Mild Extent | To a Moderate Extent | To an Appreciable Extent | To a Considerable Extent | To a Great Extent |

No items are reverse coded

### 7.3.1 Scoring

The following variables were derived from this measure.

# 8. Social Desirability

**Cluster:** Motivational

## 8.1 Measure

To measure social desirability we use is the impression management subscale of the balanced Inventory of Desirable Responding Short Form (BIDR-16) from Hart, Ritchie, Hepper, & Gebauer (2015) . This itself is an abbreviated version of the larger 40-item BIDR measure which can be found [here](https://sjdm.org/dmidi/Balanced_Inventory_of_Desirable_Responding.html).

### Modifications

The BIDR-16 used a truth based Likert scale. As with other measures we have standardized this to be a 7-point scale with anchors and response items consistent with the other truth-based Likert scales we used in the project.

The original BIDR measure asked participants to write a numbered response indicating the degree to which each statement is true. For consistency with other measures used, and the method of administration, we ask participants to respond by selecting their response.

## 8.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and say to what degree they are true or untrue for you. There are no right or wrong answers and your responses remain anonymous.*

### Items

| Qlabel | question |
| --- | --- |
| sd\_01 | I sometimes tell lies if I have to |
| sd\_02 | I never cover up my mistakes |
| sd\_03 | There have been occasions when I have taken advantage of someone |
| sd\_04 | I sometimes try to get even rather than forgive and forget |
| sd\_05 | I have said something bad about a friend behind his/her back |
| sd\_06 | When I hear people talking privately, I avoid listening |
| sd\_07 | I never take things that don’t belong to me |
| sd\_08 | I don’t gossip about other people’s business |

### Coding

This questionnaire follows our standard coding for agreement based measures, with absolutely untrue = 1, and absolutely true = 7.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| absolutely untrue | mostly untrue | somewhat untrue | can’t say true or false | somewhat true | mostly true | absolutely true |

Items sd\_01, sd\_03, sd\_04, and sd\_05 are reverse coded

### 8.2.1 Scoring

The following variables are derived from this measure:

# 9. Meaning in Life

**Cluster:** Motivational

## 9.1 Measure

To examine need for meaning we used The Meaning in Life Questionnaire (MLQ) by Steger, Frazier, Oishi, & Kaler (2006). THe original scale has a two factor structure, with the subscales noted below.

### Modifications

The truth-based Likert scale in the MLQ is the standard 7-point truth scale we used throughout the project so this was not altered.

We used the original question wording for the MLQ.

## 9.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and rate how strongly you agree or disagree. There are no right or wrong answers and your responses remain anonymous.*

### 9.2.1 Items

**Meaning in Life Questionnaire**

| Qlabel | Subscale | question |
| --- | --- | --- |
| mlq\_01 | presence | I understand my life’s meaning. |
| mlq\_02 | search | I am looking for something that makes my life feel meaningful. |
| mlq\_03 | search | I am always looking to find my life’s purpose. |
| mlq\_04 | presence | My life has a clear sense of purpose |
| mlq\_05 | presence | I have a good sense of what makes my life meaningful. |
| mlq\_06 | presence | I have discovered a satisfying life purpose. |
| mlq\_07 | search | I am always searching for something that makes my life feel significant. |
| mlq\_08 | search | I am seeking a purpose or mission for my life. |
| mlq\_09 | presence | My life has no clear purpose. |
| mlq\_10 | search | I am searching for meaning in my life. |

## 9.3 Coding

**The Meaning in Life Questionnaire (mlq\_ items) used our standard response scale for truth:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| absolutely untrue | mostly untrue | somewhat untrue | can’t say true or false | somewhat true | mostly true | absolutely true |

Item mlq\_09 is reverse coded

## 9.4 Scoring

# 10. Anthropomorphism

## 10.1 Measure

### Modifications

The original measure used by Neave, Jackson, Saxton, & Hönekopp (2015) questions pertaining to childhood and adulthood experiences. For the sake of brevity only questions pertaining to adulthood were included.

For consistency with the other agreement based measures used in the project the anchors and response items were altered to be a 7-point Likert scale.

## 10.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and rate how strongly you agree or disagree. There are no right or wrong answers and your responses remain anonymous.*

### Items

| Qlabel | question |
| --- | --- |
| anth\_01 | I sometimes wonder if my computer deliberately runs more slowly after I have shouted at it |
| anth\_02 | On occasions I feel that my computer/printer is being deliberately awkward |
| anth\_03 | I sometimes wonder if my personal possessions appreciate it when I have given them a good clean |
| anth\_04 | On occasion I feel that the weather conditions are being deliberately bad in order to ruin a social event |
| anth\_05 | I do think that certain cars have a specific personality |
| anth\_06 | If I accidentally break one of my favourite possessions I make sure that I apologise to it for my clumsiness |
| anth\_07 | I think that some trees are friendly while others have an air of menace |
| anth\_08 | I sometimes think that if my computer/printer is made to feel happy and/or wanted, then they will be less likely to malfunction |
| anth\_09 | I sometimes feel that the sea can be angry |
| anth\_10 | Part of the reason why I picked a new car/electrical item was because when I first saw it I felt that it had a friendly personality |

### Coding

This questionnaire follows our standard coding for agreement based measures, with strongly disagree = 1, and strongly agree = 7.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

No items are reverse coded

### 10.2.1 Scoring

The following variables were derived from this measure

# 11. Mentalizing

**Cluster:** Cognitive Biases

## 11.1 Measure

The Mentalizing measure used was the EQ-Short (Wakabayashi et al., 2006), which is an abbreviated version of the original Empathy Quotient measure (Baron-Cohen & Wheelwright, 2004).

### 11.1.1 Modifications

In contrast with other agreement based measures we used, the selected mentalizing measure used a unique scoring system, and as such was not altered to be consistent with our other Likert measures.

The wording of the question was altered to reflect the manner of administration (“select” your answer instead of the original “circle”)

## 11.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and rate how strongly you agree or disagree. There are no right or wrong answers and your responses remain anonymous.*

### Items

| Qlabel | question |
| --- | --- |
| mnt\_01 | I can easily tell if someone else wants to enter a conversation. |
| mnt\_02 | I really enjoy caring for other people |
| mnt\_03 | I find it hard to know what to do in a social situation |
| mnt\_04 | I often find it difficult to judge if something is rude or polite |
| mnt\_05 | In a conversation, I tend to focus on my own thoughts rather than on what my listener might be thinking |
| mnt\_06 | I can pick up quickly if someone says one thing but means another. |
| mnt\_07 | It is hard for me to see why some things upset people so much |
| mnt\_08 | I find it easy to put myself in somebody else’s shoes |
| mnt\_09 | I am good at predicting how someone will feel. |
| mnt\_10 | I am quick to spot when someone in a group is feeling awkward or uncomfortable |
| mnt\_11 | I can’t always see why someone should have felt offended by a remark |
| mnt\_12 | I don’t tend to find social situations confusing. |
| mnt\_13 | Other people tell me I am good at understanding how they are feeling and what they are thinking |
| mnt\_14 | I can easily tell if someone else is interested or bored with what I am saying |
| mnt\_15 | Friends usually talk to me about their problems as they say that I am very understanding. |
| mnt\_16 | I can sense if I am intruding, even if the other person doesn’t tell me |
| mnt\_17 | Other people often say that I am insensitive, though I don’t always see why |
| mnt\_18 | I can tune into how someone else feels rapidly and intuitively. |
| mnt\_19 | I can easily work out what another person might want to talk about |
| mnt\_20 | I can tell if someone is masking their true emotion |
| mnt\_21 | I am good at predicting what someone will do |
| mnt\_22 | I tend to get emotionally involved with a friend’s problems |

### Coding

The mentalizing measure follows a bespoke 4 point agreement scale and uses a the following coding scheme:

| definitely disagree | slightly disagree | slightly agree | definitely agree |
| --- | --- | --- | --- |
| 0 | 0 | 1 | 2 |

Items 03, 04, 05, 07, 11, and 17 are reverse coded.

### 11.2.1 Scoring

The following variables are derived from this measure:

# 12. Vividness of Mental Imagery

**Cluster:** Cognitive Biases

## 12.1 Measure

The measure of vividness of mental imagery we use is the Vividness of Mental Imagery scale Marks (1973).

### Modifications

## 12.2 Implementation

For this questionnaire each subscale appeared on its own page with the subscale specific text above

### Question wording

Participants read the following text:

| Items | Text |
| --- | --- |
|  |  |
| vvi\_01 - vvi\_16 | For each scenario try to form a mental picture of the people, objects, or setting. Consider carefully the vividness of your visual imagery experience. Does some type of image come to mind? Rate how vivid the image is using the 5-point scale. If you do not have a visual image, rate vividness as ‘1’. Only use ‘5’ for images that are as lively and vivid as real seeing.  Please try to form the mental image of the following items with your eyes ***closed.*** |

additional text was also presented prior to each subscale:

| Subscale (items) | Text |
| --- | --- |
| Relative or friend (vvi\_01 - vvi\_04) | For items 1 to 4, think of some relative or friend whom you frequently see (but who is not with you at present) and consider carefully the picture that comes before your mind’s eye. |
| Natural scene: Rising sun (vvi\_05 - vvi\_08) | Visualize a rising sun. Consider carefully the picture that comes before your mind’s eye. |
| Shop (vvi\_09 - vvi\_12) | Think of the front of a shop which you often go to. Consider the picture that comes before your mind’s eye. |
| Natural scene: Lake (vvi\_13 - vvi\_16) | Finally, think of a country scene which involves trees, mountains, and a lake. Consider the picture that comes before your mind’s eye. |

### Items

| Qlabel | Subscale | question |
| --- | --- | --- |
| vvi\_01 | Relative or friend | The exact contour of face, head, shoulders, and body. |
| vvi\_02 | Relative or friend | Characteristic poses of head, attitudes of body, etc. |
| vvi\_03 | Relative or friend | The precise carriage, length of step, etc. in walking. |
| vvi\_04 | Relative or friend | The different colors worn in some familiar clothes. |
| vvi\_05 | Natural scene: Rising sun | The sun is rising above the horizon into a hazy sky. |
| vvi\_06 | Natural scene: Rising sun | The sky clears and surrounds the sun with blueness. |
| vvi\_07 | Natural scene: Rising sun | Clouds. A storm blows up, with flashes of lightening. |
| vvi\_08 | Natural scene: Rising sun | A rainbow appears. |
| vvi\_09 | Shop | The overall appearance of the shop from the opposite side of the road. |
| vvi\_10 | Shop | A window display including colors, shape, and details of individual items for sale. |
| vvi\_11 | Shop | You are near the entrance. The color, shape, and details of the door. |
| vvi\_12 | Shop | You enter the shop and go to the counter. The counter assistant serves you. Money changes hands. |
| vvi\_13 | Natural scene: Lake | The contours of the landscape. |
| vvi\_14 | Natural scene: Lake | The color and shape of the trees. |
| vvi\_15 | Natural scene: Lake | The color and shape of the lake. |
| vvi\_16 | Natural scene: Lake | A strong wind blows on the tree and on the lake causing waves. |

### Coding

This questionnaire follows a unique scoring scheme for vividness

| **1** | **2** | **3** | **4** | **5** |
| --- | --- | --- | --- | --- |
| Perfectly clear and as vivid as normal vision | Clear and reasonably vivid | Moderately clear and vivid | Vague and dim | No image at all, you only “know” that you are thinking of an object |

No items are reverse coded

### 12.2.1 Scoring

The following variables are derived from this measure:

## 12.3

# 13. Dualism

**Cluster:** Cognitive Biases

## 13.1 Measure

The Dualism measure used is an abbreviation of The Dualism Scale by Stanovich (1989). As with previous research the scale has been shortened for brevity (Willard & Cingl, 2017; Willard, Cingl, & Norenzayan, 2020).

### 13.1.1 Modifications.

For consistency with the other agreement based measures used in the project the anchors and response items were altered to be a 7-point Likert scale

## 13.2 Implementation

### 13.2.1 Question wording

Participants read the following text, adapted and shortened from Stanovich (1989):

*Please read each of the following statements carefully and rate how strongly you agree or disagree. There are no right or wrong answers and your responses remain anonymous*

### Items

| Qlabel | question |
| --- | --- |
| dua\_01 | The mind is not part of the brain but it affects the brain. |
| dua\_02 | When I imagine a scene in my mind, I am in a state that will forever be beyond explanation by science. |
| dua\_03 | The mind is a special form of energy (currently unknown to man) that is in contact with the brain and affects it. |
| dua\_04 | When people talk about their minds they are really just talking about what their brains seem to be doing. |
| dua\_05 | The fact that I can know my own thought processes (that I can introspect) means that my thought processes cannot be just brain processes |
| dua\_06 | The mind is a nonmaterial substance that interact with the brain to determine behavior |
| dua\_07 | Minds are inside brains but are not the same as brains. |
| dua\_08 | Some mental processes have no connection to brain processes |
| dua\_09 | Mental processes are the result of activity in the nervous system |
| dua\_10 | The mind and the brain are two totally separate things |

### Coding

This questionnaire follows our standard scoring for agreement based measures, with strongly disagree = 1, and strongly agree = 7.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

dua\_04 and dua\_09 are reverse coded

## 13.3 Scoring

## 13.4 Script

# 14. Promiscuous Teleology

## 14.1 Measure

The promiscuous teleology measure we use is the short form of the Teleological Ideas about Nature Scale (TINS), which is an as yet unpublished scale by Kelemen, Brown, Burnham & Rottman (2023, in prep).

PAGE WILL BE UPDATED WHEN THE SCALE IS PUBLISHED

### Modifications

## 14.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and state to what extent you agree. There are no right or wrong answers and your responses remain anonymous.*

### Items

### Coding

This questionnaire used the standard response scale for agreement

No items are reverse coded

### 14.2.1 Scoring

The following variables are derived from this measure:

## 14.3 Script

# 15. Thinking Style

**Cluster:** Cognitive Style

## 15.1 Measure

We use the original Cognitive Reflection Task by Frederick (2005), and an updated version, the Cognitive Reflection Task 2,from Thomson & Oppenheimer (2016).

### Modifications

## 15.2 Implementation

### Question wording

Participants read the following text:

*In the following section you will be asked a series of questions. Please do your best to answer as accurately as possible.*

### Items

| Qlabel | question |
| --- | --- |
| crt\_01 | You’re running a race and you pass the person in second place, what place are you in? |
| crt\_02 | A farmer had 15 sheep and all but 8 died. How many are left? |
| crt\_03 | Emily’s father has three daughters. The first two are named April and May. What is the third daughter’s name? |
| crt\_04 | How many cubic feet of dirt are there in a hole that is 3’ deep x 3’ wide x 3’ long? |
| crt\_05 | A bat and a ball cost $1.10 in total. The bat costs $1.00 more than the ball. How much does the ball cost? |
| crt\_06 | If it takes 5 machines 5 min to make 5 widgets, how long would it take 100 machines to make 100 widgets? |
| crt\_07 | In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake? |

### Coding

This questionnaire uses open responses for crt items.

For scoring responses are labelled as either “Correct”, “Intuitive” or “Incorrect”. Correct and intuitive answers are as follows:

`we also code any typos/variations accordingly for all items, see rows 1:3 as illustration)

| Item | Correct (including variations/typos) | Intuitive (!!CHECK THESE!!) |
| --- | --- | --- |
| crt\_01 | second (or 2nd, 2 or any variation therein) | first (or 1st, 1 or any variation of) |
| crt\_02 | 8 (or eight or other variations of/typos) | 7 (or seven or variations of) |
| crt\_03 | Emily (or typos of) | June (or typos) |
| crt\_04 | 0 | 3 |
| crt\_04 | 5 cents | 10 cents |
| crt\_05 | 5 minutes | 1 minute |
| crt\_06 | 47 days | 24 days |

### 15.2.1 Scoring

The following variables are derived from this measure:

# 16. Existential Insecurity

**Cluster:** Motivational

## 16.1 Measure

The initial existential insecurity measures were derived from those used by Baimel et al. (2022) and by Willard & Cingl (2017).

### Modifications

The food security measure from Baimel et al. (2022) was combined with financial and physical security from Willard & Cingl (2017), these were asked for ‘recently’ and ‘for the forthcoming months’.

In this wave we only included questions pertaining to childhood.

## 16.2 Implementation

### Question wording

The question wording was as follows:

| Questions | Question Text |
| --- | --- |
| es\_15 - es\_21 | *When growing up did you:* |

### Items

The question items were as follows:

**Existential Security**

| Qlabel | question |
| --- | --- |
| es\_15 | worry that your household may not able to buy or produce enough food to eat? |
| es\_16 | feel that your household may not be able to afford to buy items you need |
| es\_17 | worry that your household may not have enough money |
| es\_18 | worry about members of your household losing their job |
| es\_19 | feel you will be safe walking alone in your local area after dark |
| es\_20 | worry about being burgled |
| es\_21 | worry about being a victim of violent crime |

### Coding

Items on the existential security subscale use the following frequency based Likert scale:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| never | very infrequently | infrequently | sometimes | frequently | very frequently | always |

es\_19 is reverse coded

### 16.2.1 Scoring

The following variables are derived form this measure:

# 17. Tolerance of Ambiguity

**Cluster:** Cognitive Styles

## 17.1 Measure

The measure used for tolerance of ambiguity is the Multiple Stimulus Types Ambiguity Tolerance Scale- II (MSTAT-II) by McLain (2009) .

### Modifications

## 17.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and state to what extent you agree with each. There are no right or wrong answers and your responses remain anonymous.*

### Items

| Qlabel | question |
| --- | --- |
| at\_01 | I don’t tolerate ambiguous situations well |
| at\_02 | I would rather avoid solving a problem that must be viewed from several different perspectives |
| at\_03 | I try to avoid situations that are ambiguous |
| at\_04 | I prefer familiar situations to new ones |
| at\_05 | Problems that cannot be considered from just one point of view are a little threatening |
| at\_06 | I avoid situations that are too complicated for me to easily understand |
| at\_07 | I am tolerant of ambiguous situations |
| at\_08 | I enjoy tackling problems that are complex enough to be ambiguous |
| at\_09 | I try to avoid problems that don’t seem to have only one “best” solution |
| at\_10 | I generally prefer novelty over familiarity |
| at\_11 | I dislike ambiguous situations |
| at\_12 | I find it hard to make a choice when the outcome is uncertain |
| at\_13 | I prefer a situation in which there is some ambiguity |

### Coding

This questionnaire uses our standard response scale for agreement,

| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| --- | --- | --- | --- | --- | --- | --- |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

at\_01, at\_02, at\_03, at\_04, at\_05, at\_06, at\_09, at\_11, and at\_12 are reverse coded

### 17.2.1 Scoring

The following variables are derived from this measure:

# 18. Importance of Rationality

**Cluster:** Cognitive Style

## 18.1 Measure

Here we include the Importance of Rationality Scale from Ståhl, Zaal, & Skitka (2016)

### Modifications

## 18.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and state to what extent you agree. There are no right or wrong answers and your responses remain anonymous.*

**INSERT**

### Items

|  |  |
| --- | --- |
| imp\_01 | It is important to me personally to be skeptical about claims that are not backed up by evidence. |
| imp\_02 | It is important to me personally to remain rational and levelheaded even in heated arguments. |
| imp\_03 | It is important to me personally to examine traditionally held beliefs using logic and evidence. |
| imp\_04 | It is important to me personally that I can justify my beliefs using rational arguments and evidence. |
| imp\_05 | It is important to me personally to critically examine my long-held beliefs. |
| imp\_06 | It is important to me personally to be a rational person. |

### Coding

This questionnaire uses our standard agreement scale.

| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| --- | --- | --- | --- | --- | --- | --- |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

No items are reverse coded

### Scoring

The following variables are derived form this measure:

# 19. ISSP

**Cluster:** Measuring Belief

## 19.1 Measure

### Modifications

Note ISSP\_03 was not originally an ISSP question. This is a question created by us and added to this section for practical purposes.

## 19.2 Implementation

issp\_02 only appears if issp\_01 = 1 or 2

| Qlabel | Question | Response options |
| --- | --- | --- |
| issp\_01 | Which statement comes closes to expressing what you believe about God? | 1. I don’t believe in God 2. I don’t know whether there is a God, and I don’t believe there is any way to find out 3. I don’t believe in a personal God, but I do believe in a Higher Power of some kind 4. I find myself believing in God some of the time, but not at others 5. While I have doubts, I feel that I do believe in God. 6. I know God really exists and I have no doubt about it. 7. Don’t know |
| issp\_02 | Here are some examples of how different people who do not believe in God or gods identify themselves. If you had to pick a label, which of these comes closest to how you identify yourself? | 1. Spiritual but not religious 2. Seeker 3. Non-religious 4. Atheist 5. Agnostic 6. Humanist 7. Sceptic 8. Free thinker 9. Rationalist 10. Secular 11. Christian 12. Muslim 13. Jewish 14. Buddhist 15. Hindu 16. Daoist 17. Shinto 18. Confucian 19. Other (please specify) |
| issp\_03 | Which of the following best describes your belief in god? | 1. Generally speaking, I have always believed in God. 2. Generally speaking, I have never believed in God. 3. I believed in God in the past, but now I do not. 4. I did not believe in God in the past, but now I do. |

## 19.3 Scoring

See the Belief Measures landing page for all belief measures variables and their definitions.

# 20. Religious Identity

## 20.1 Measure

## 20.2 Implementation

rid\_02 only appears if rid\_01 = Yes

| Qlabel | Question | Response options |
| --- | --- | --- |
| rid\_01 | Do you regard yourself as belonging to a particular religion? | Yes/No |
| rid\_02 | If yes, which? | 1. Protestant 2. Catholic 3. Orthodox (e.g. Greek Orthodox, Russian Orthodox) 4. Sunni 5. Shiite 6. Buddhist 7. Confucian 8. Daoist 9. Hindu 10. Jewish 11. Shinto 12. Other (please specify) |
| rid\_03 | Whilst growing up did your primary caregiver belong to a particular religion? | Yes/No |
| rid\_04 | If yes, which? | 1. Protestant 2. Catholic 3. Orthodox (e.g. Greek Orthodox, Russian Orthodox) 4. Sunni 5. Shiite 6. Buddhist 7. Confucian 8. Daoist 9. Hindu 10. Jewish 11. Shinto 12. Other (please specify) |
| rid\_05 | Whilst growing up did an additional important caregiver belong to a particular religion? | Yes/No |
| rid\_06 | If yes, which? | 1. Protestant 2. Catholic 3. Orthodox (e.g. Greek Orthodox, Russian Orthodox) 4. Sunni 5. Shiite 6. Buddhist 7. Confucian 8. Daoist 9. Hindu 10. Jewish 11. Shinto 12. Other (please specify) |

### 20.2.1 Scoring/ Coding

See the Belief Measures landing page for all belief measures variables and their definitions.

## 20.3

# 21. Religious Practice

**Cluster:** Measuring Belief

## 21.1 Measure

### Modifications

## 21.2 Implementation

| Qlabel | Question | Response options |
| --- | --- | --- |
| rp\_01 | Apart from weddings and funerals, about how often do you attend religious services these days? | 1. More than once a week 2. Once a week 3. Once a month 4. Only on special holy days 5. Once a year 6. Less often 7. Never, practically never |
| rp\_02 | Apart from weddings and funerals, about how often do you pray? | 1. Several times a day 2. Once a day 3. Several times each week 4. Only when attending religious services 5. Only on special holy days 6. Once a year 7. Less often 8. Never, practically never |
| rp\_03 | Do you have in your home a shrine, altar, or a religious object on display such as a (BIBLE OR CROSS/ COUNTRY SPECIFIC ITEM)? | 1. Yes, for religious reasons 2. Yes, for non-religious reasons 3. No |

**Country Specific Examples**

*Brazil*

rp\_03: crucifix or an image of Iemanja

*China*

rp\_03: an ancestor tablet,  censer, Buddha statue, or statue of a deity?

*Denmark*

rp\_03: a Bible or cross?

*Japan*

rp\_03: butsudan, ihai, or kamidana?

*UK*

rp\_03: cross, icon, mezuzah, or Bible?

*USA*

rp\_03: a cross, icon, mezuzah, Bible, or retablo?

### 21.2.1 Scoring/ Coding

See the General Belief landing page for all belief measures variables and their definitions.

# 22. Supernatural Belief

**Cluster:** Belief Measures

## 22.1 Measure

### Modifications

## 22.2 Implementation

### Question wording

Participants read the following text:

*Please read each of the following statements carefully and state to what extent you agree. There are no right or wrong answers and your responses remain anonymous.*

### 22.2.1 Items

| Qlabel | question |
| --- | --- |
| snb\_01 | There is some sort of life after death |
| snb\_02 | Sometime after I die, I expect that I’ll be born again in another body. |
| snb\_03 | The positions of the stars and planets affect people’s lives |
| snb\_04 | Some people have mystical powers (e.g. to heal, harm, or bring good luck) |
| snb\_05 | Some objects have mystical powers (e.g. to heal, harm, or bring good luck) |
| snb\_06 | There are underlying forces of good and evil in this world. |
| snb\_07 | There exists a universal spirit or life force. |
| snb\_08 | There is a power in the universe that causes good things to happen to people who behave morally and bad things to happen to people who behave immorally. |
| snb\_09 | Most significant life events are meant to be and happen for a reason. |
| snb\_10 | Supernatural beings of some kind exist |
| snb\_11 | There exist supernatural beings that are good/kind (e.g. COUNTRY SPECIFIC) |
| snb\_12 | There exist supernatural beings that are harmful. (e.g COUNTRY SPECIFIC) |
| snb\_13 | Some people will be punished after they die |
| snb\_14 | Some people will be rewarded after they die |
| snb\_15 | Making other people envious of you can cause illness or misfortune. |
| snb\_16 | Have you ever felt as though you were connected to a powerful spiritual force? |
| snb\_17 | Do you carry any objects for luck or protection? |

**Country Specific Examples**

*Brazil*

snb\_11: e.g. angels, nature spirits

snb\_12: e.g. demons, ghosts

*China*

snb\_11: e.g. ancestor spirits

snb\_12: e.g. ghosts

*Denmark*

snb\_11: e.g. angels, nature spirits

snb\_12: e.g. demons, ghosts

*Japan*

snb\_11: e.g. angels, spirits

snb\_12: e.g.  ghosts, monsters

*UK*

snb\_11: e.g. angels, nature spirits

snb\_12: e.g. demons, ghosts

*USA*

snb\_11: e.g. angels, nature spirits

snb\_12: e.g. demons, ghosts

## 22.3 Coding

**Items snb\_01 - snb\_15 use our standard response scale for agreement**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

**Item snb\_16 uses the following bespoke scale**

| 1 | 2 | 3 |
| --- | --- | --- |
| Yes, I’ve had an experience like this. | I’ve had an experience like this, but I didn’t associate it with a spiritual force. | No, I’ve never had an experience like this. |

**Item snb\_17 is a Yes/No response**

### 22.3.1 Scoring

See the General Belief landing page for all belief measures variables and their definitions.

# 23. General Belief

**Cluster:** Belief Measures

## 23.1 Measure

### Modifications

## 23.2 Implementation

### Question wording

Participants read the following text:

*“The following section will list a number of statements regarding your attitudes towards God, religion, and belief. Please read each and state to what extent you agree. There are no right or wrong answers and your responses remain anonymous.”*

### 23.2.1 Items

| Qlabel | question |
| --- | --- |
| belief\_01 | I believe that God exists |
| belief\_02 | It is not possible to know if God exists |
| conf\_01 | I am confident that my beliefs about God's existence are the right ones. |
| ar\_01 | We would all be better off if people left religion behind. |
| apth\_01 | Whether or not God exists is a question that doesn’t interest me much |
| apth\_02 | Whether or not there is an ultimate purpose to life is a question that doesn’t interest me much. |
| agn\_01 | I don’t know whether there is a God, and I don’t believe there is any way to find out. |
| mean\_01 | For most things in the world, we will never be able to discover the real objective truth. |

## 23.3 Coding

This scale uses our standard response scale for agreement

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| strongly disagree | moderately disagree | slightly disagree | neither agree nor disagree | slightly agree | moderately agree | strongly agree |

## 23.4 Scoring

See the Belief Measures landing page for all belief measures variables and their definitions.

# 24. Atheist Membership

**Cluster:** Measuring Belief

## 24.1 Measure

### Modifications

## 24.2 Implementation

| Qlabel | Question | Response options |
| --- | --- | --- |
| am\_01 | Are you currently a member of any atheist, secularist, humanist, or similar organization at a national or local level? | Y/N |

## 24.3 Scoring

See the Belief Measures landing page for all belief measures variables and their definitions.

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