Model's weight comparison to attribute plausibility

Table SW1: Weight comparison among model with Attitude as outcome variable

	Pseudo-BMA without Bayesian bootstrap	Pseudo-BMA with Bayesian bootstrap	Bayesian stacking
Model 1	0.000	0.005	0.056
Model 2	0.000	0.001	0.112
Model 3	0.000	0.000	0.000
Model 4	0.000	0.001	0.000
Model 9	0.001	0.068	0.000
Model 10	0.999	0.924	0.833

Table SW2: Weight comparison among model with Familiarity as outcome variable

	Pseudo-BMA without Bayesian bootstrap	Pseudo-BMA with Bayesian bootstrap	Bayesian stacking
Model 5	0.821	0.672	0.685
Model 6	0.000	0.030	0.083
Model 7	0.000	0.016	0.057
Model 8	0.179	0.282	0.175

Model 2

$$Attitude \sim Christianity + Islam + Buddhism$$

Where

- *Attitude* is attitude towards emotional AI (continuous variable);
- *Christianity* is whether the respondent's religion is Christianity (binary variable);
- *Islam* is whether the respondent's religion is Islam (binary variable);
- *Buddhism* is whether the respondent's religion is Buddhism (binary variable);
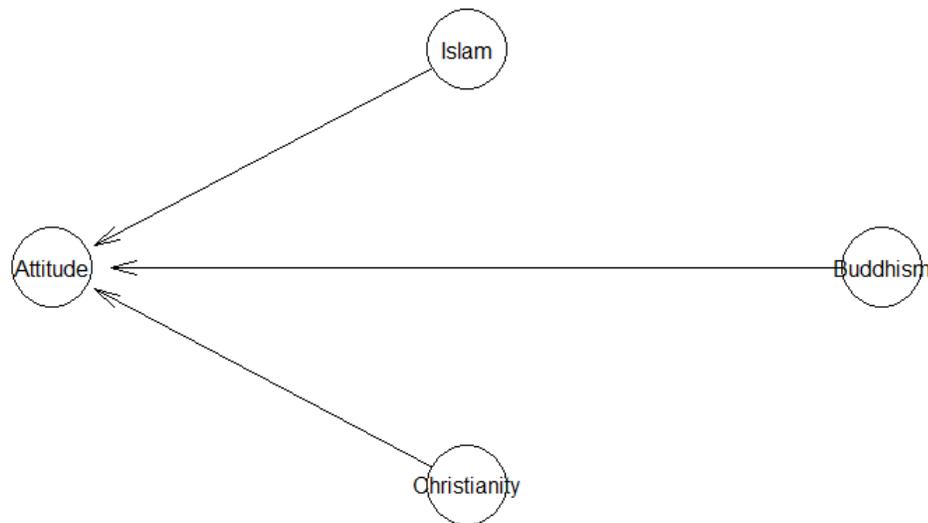

Figure S2.0. Visualization of model 2

Table S2.1: Posterior estimate of model 2

	Mean	SD	n_eff	Rhat
a_Attitude	2.86	0.04	6837	1
b_Christianity_Attitude	-0.17	0.08	9363	1
b_Buddhism_Attitude	-0.13	0.07	7737	1
b_Islam_Attitude	-0.34	0.08	9413	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics

Trace plot diagnostic
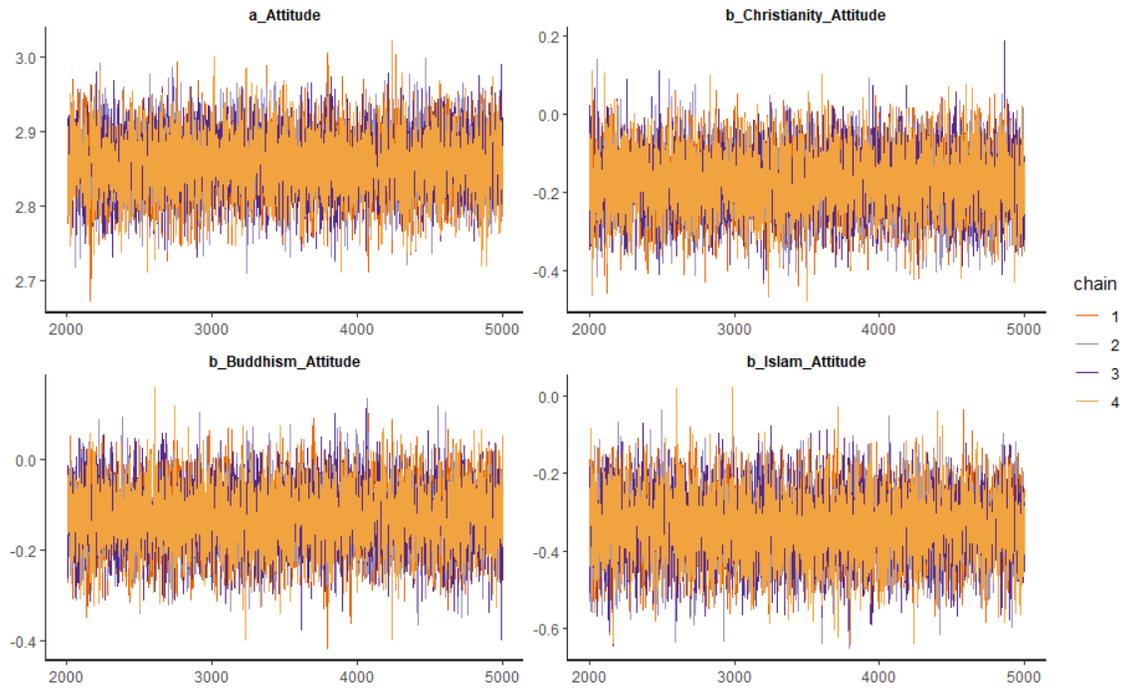
Figure S2.1: Trace plot diagnostic for model 2.

Gelman diagnostic
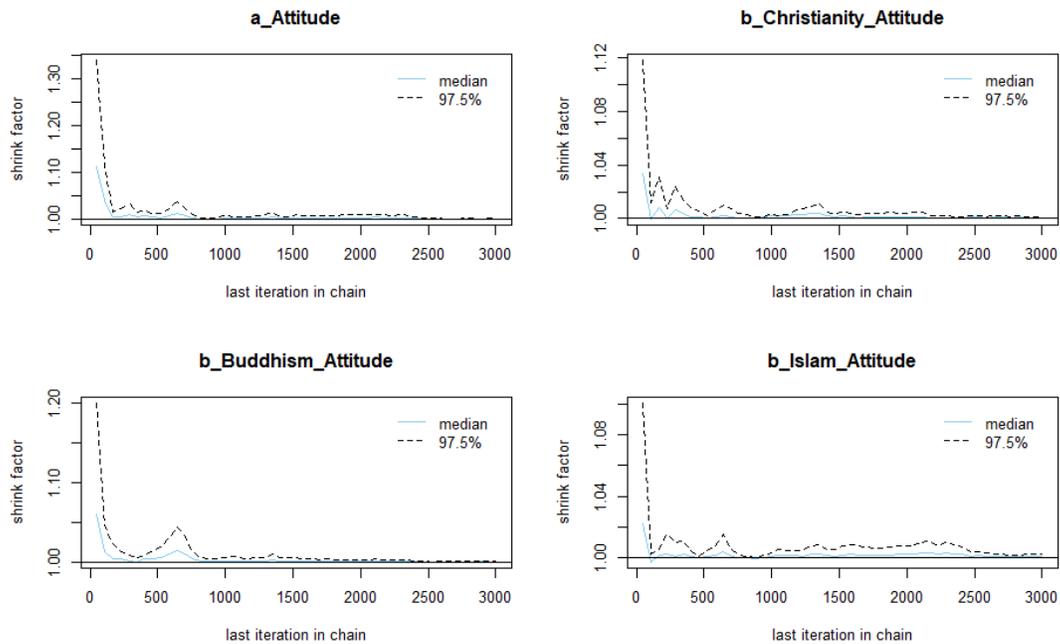
Figure S2.2: Gelman diagnostic for model 2

ACF diagnostic

a_Attitude

ESS = 7358.5

b_Christianity_Attitude

ESS = 9768.1

b_Buddhism_Attitude

ESS = 8110.3

b_Islam_Attitude

ESS = 9706.4
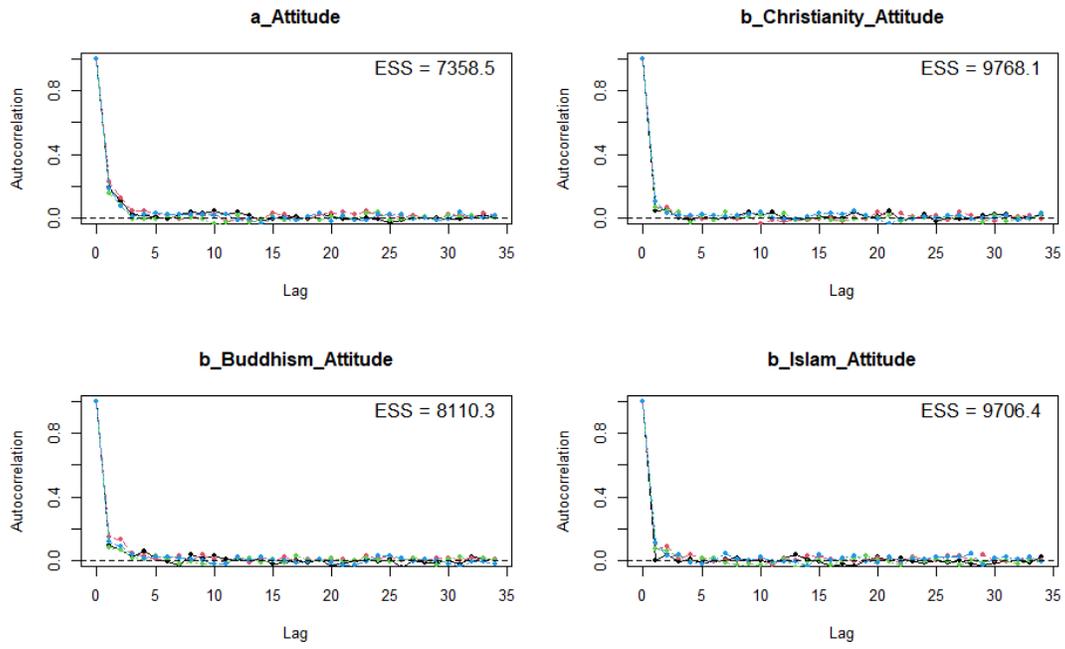
Figure S2.3: ACF diagnostic for model 2

Posterior results

Interval distribution
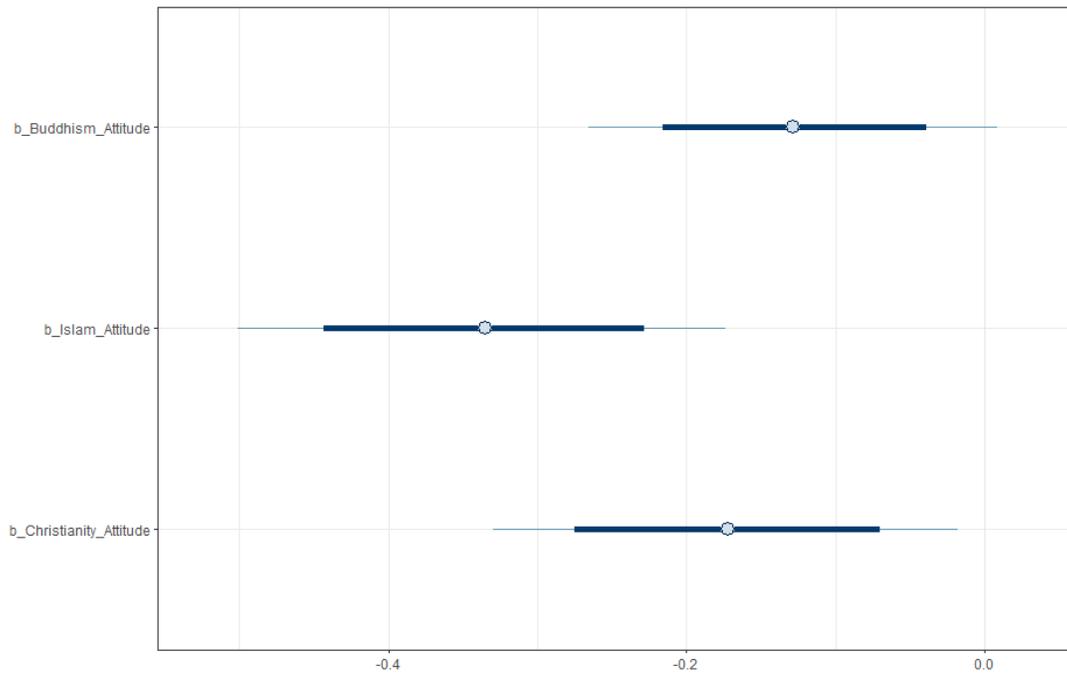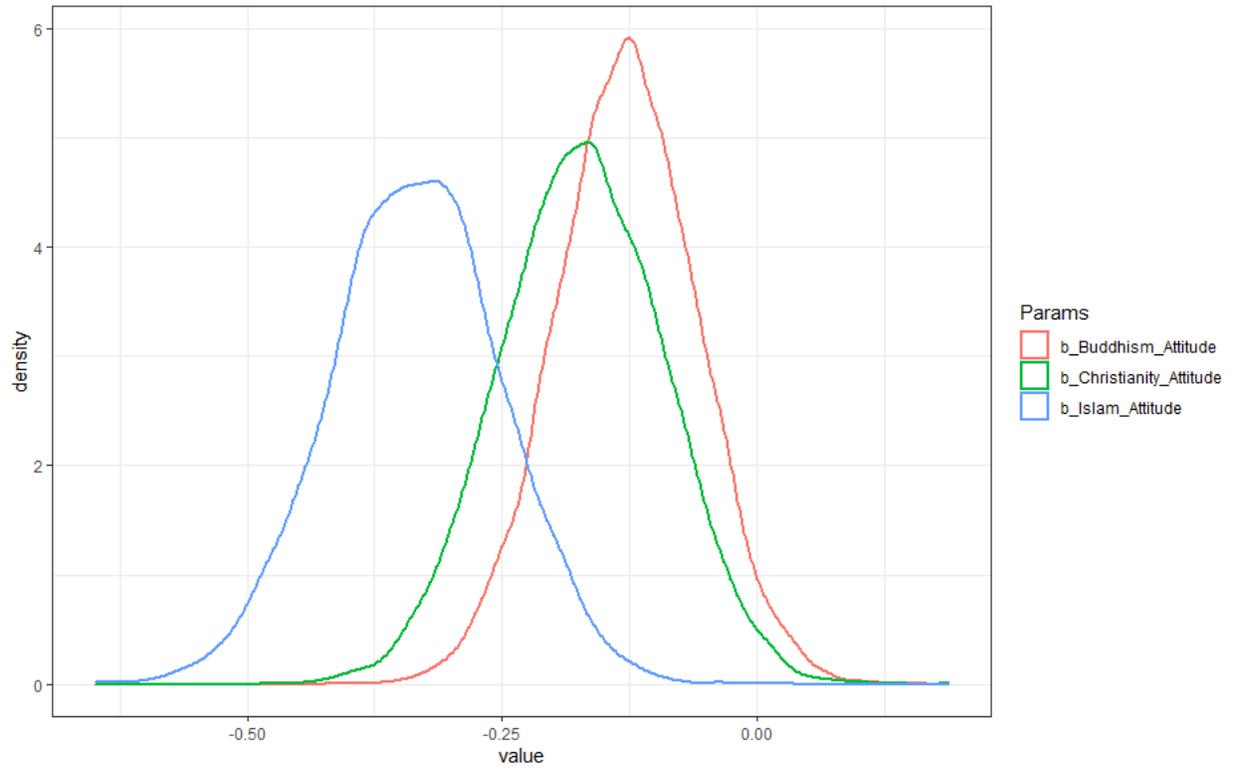

Figure S2.4: Model 2's posterior interval distribution

Density distribution

Figure S2.5: Density distribution for model 2

Density distribution with HPDI
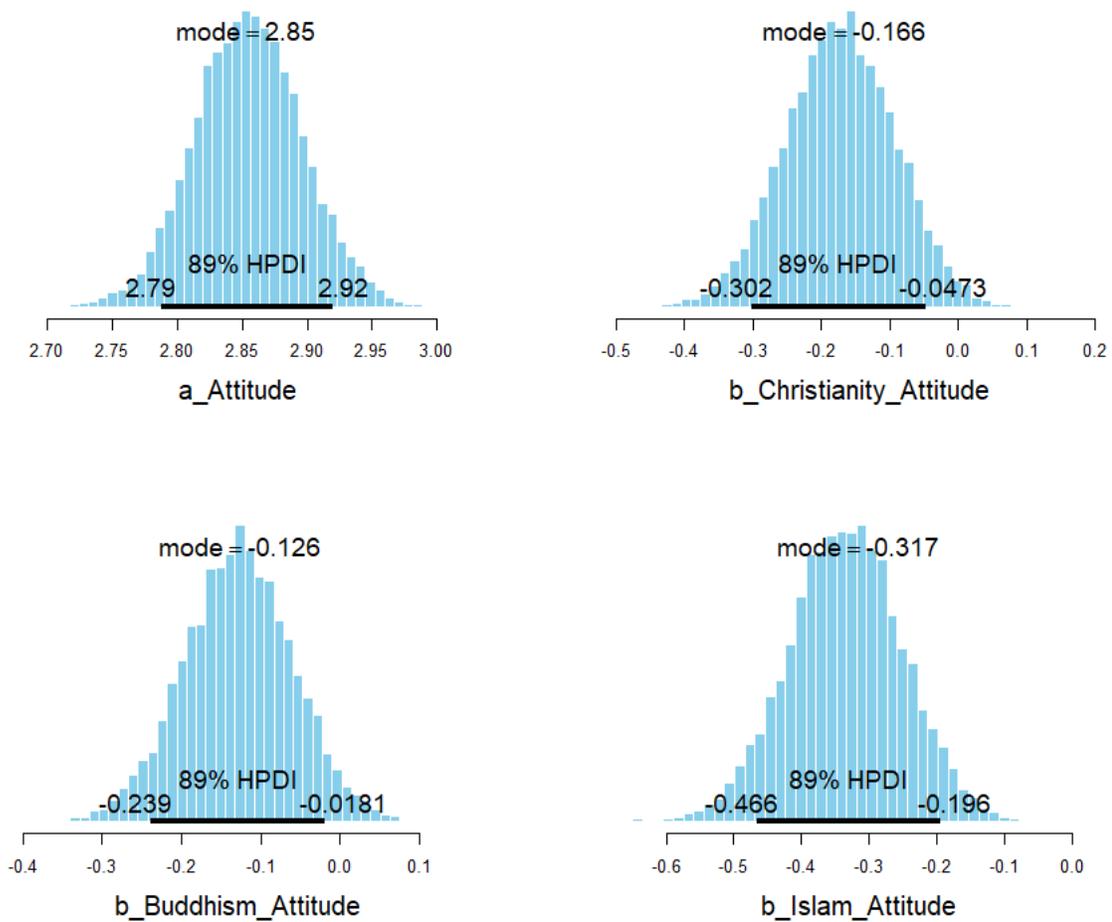
Figure S2.6: Density distribution with HDPI for model 2

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 775 log-likelihood matrix

          Estimate   SE
elpd_loo    -897.7 19.0
p_loo          4.9  0.3
looic       1795.4 38.0
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
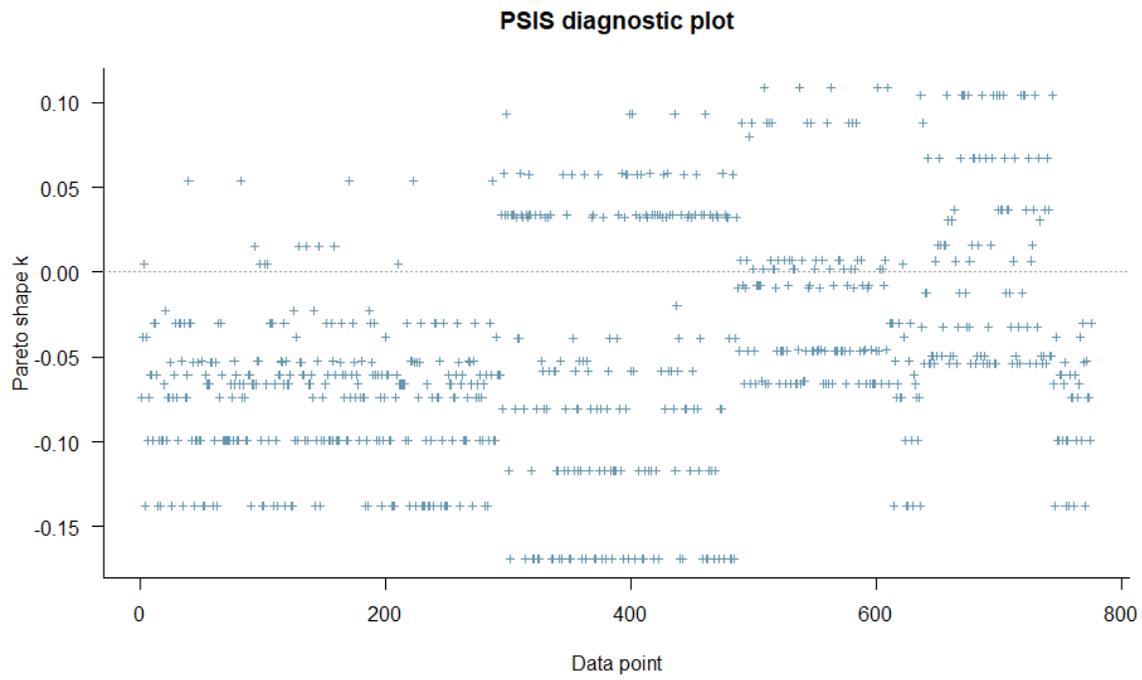
Figure S2.7: PSIS diagnostic plot for model 2

Marginal predictive distribution
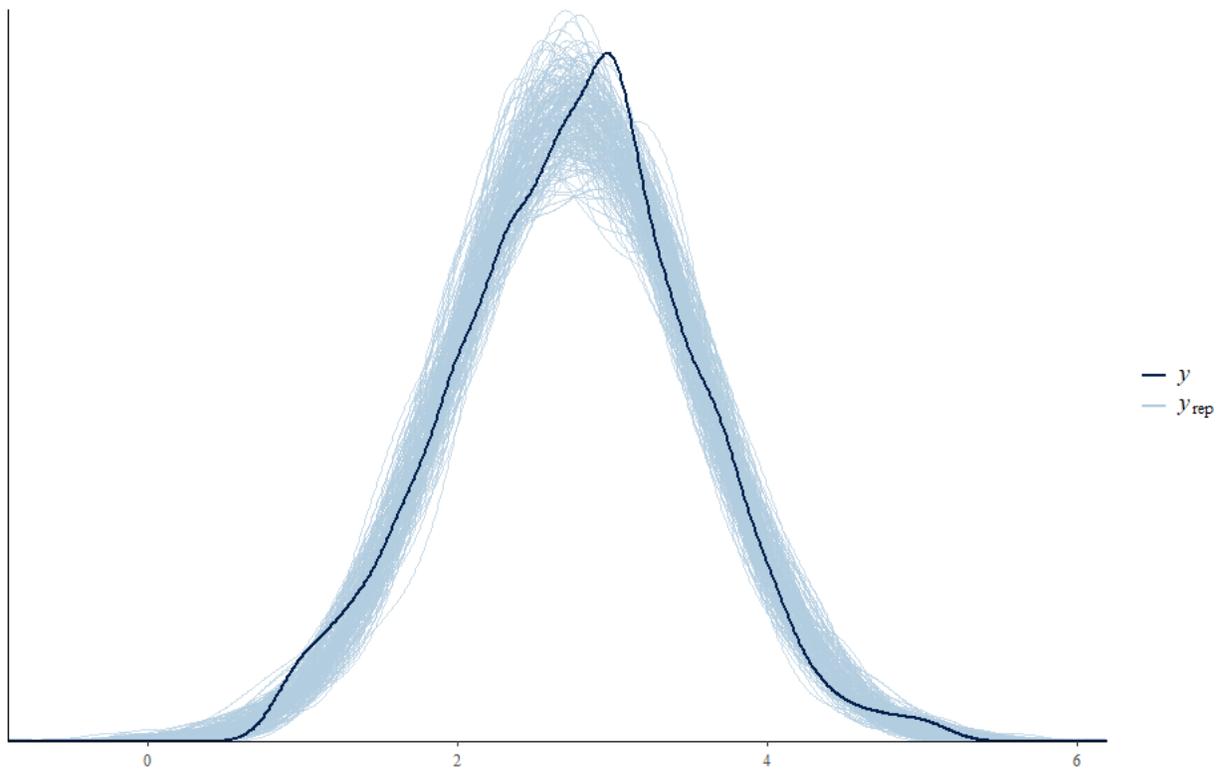
Figure S2.8: Marginal predictive distribution for model 2

WAIC test

```
Computed from 12000 by 775 log-likelihood matrix

           Estimate    SE
elpd_waic    -897.7  19.0
p_waic          4.9   0.3
waic         1795.4  38.0
```

Model 3

Equation:

$$Attitude \sim Christianity + Islam + Buddhism + Christianity\_Religiosity + Islam\_Religiosity + Buddhism\_Religiosity$$

Where

- $Attitude$ is attitude towards emotional AI (continuous variable);
- $Christianity$ is whether the respondent's religion is Christianity (binary variable);
- $Islam$ is whether the respondent's religion is Islam (binary variable);
- $Buddhism$ is whether the respondent's religion is Buddhism (binary variable);
- $Religiosity$ is the level of respondent's religiosity (ordinal/continuous variable);
- $Buddhism\_Religiosity$ is interaction between $Buddhism$ and $Religiosity$ so that $Buddhism\_Religiosity = Buddhism * Religiosity$ (continuous variable);
- $Christianity\_Religiosity$ is interaction between $Christianity$ and $Religiosity$ so that $Christianity\_Religiosity = Christianity * Religiosity$ (continuous variable);
- $Islam\_Religiosity$ is interaction between $Islam$ and $Religiosity$ so that $Islam\_Religiosity = Islam * Religiosity$ (continuous variable).

Figure S3.0. Visualization of model

Table S3.1: Posterior estimate of model 3

	Mean	SD	n_eff	Rhat
a_Attitude	2.85	0.04	8625	1
b_Christianity_Attitude	-0.13	0.09	9681	1
b_Christianity_Religiosity_Attitude	-0.08	0.17	15126	1
b_Buddhism_Attitude	-0.10	0.07	9751	1
b_Buddhism_Religiosity_Attitude	-0.26	0.20	17805	1
b_Islam_Attitude	-0.30	0.10	10034	1
b_Islam_Religiosity_Attitude	-0.09	0.17	13051	1
Monte Carlo SE of elpd_loo is 0.0. *All Pareto k estimates are good (k < 0.5).*				

Posterior Diagnostics

Trace plot diagnostic
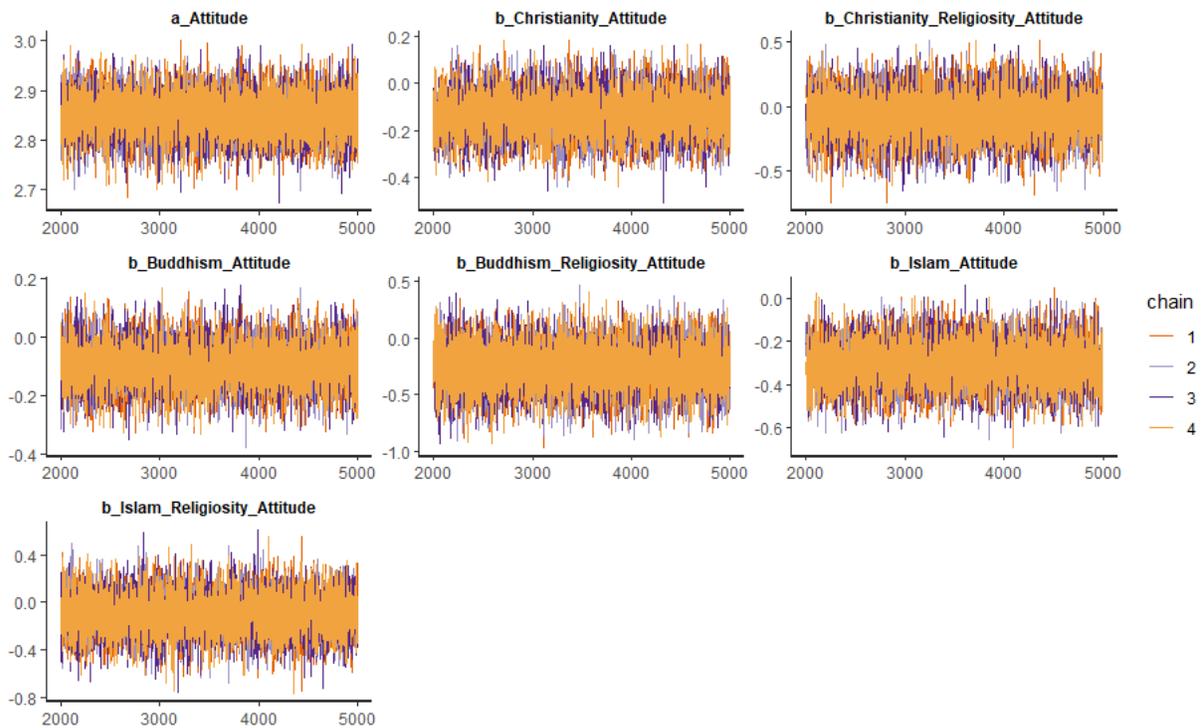
Figure S3.1: Trace plot diagnostic for model 3.

Gelman diagnostic
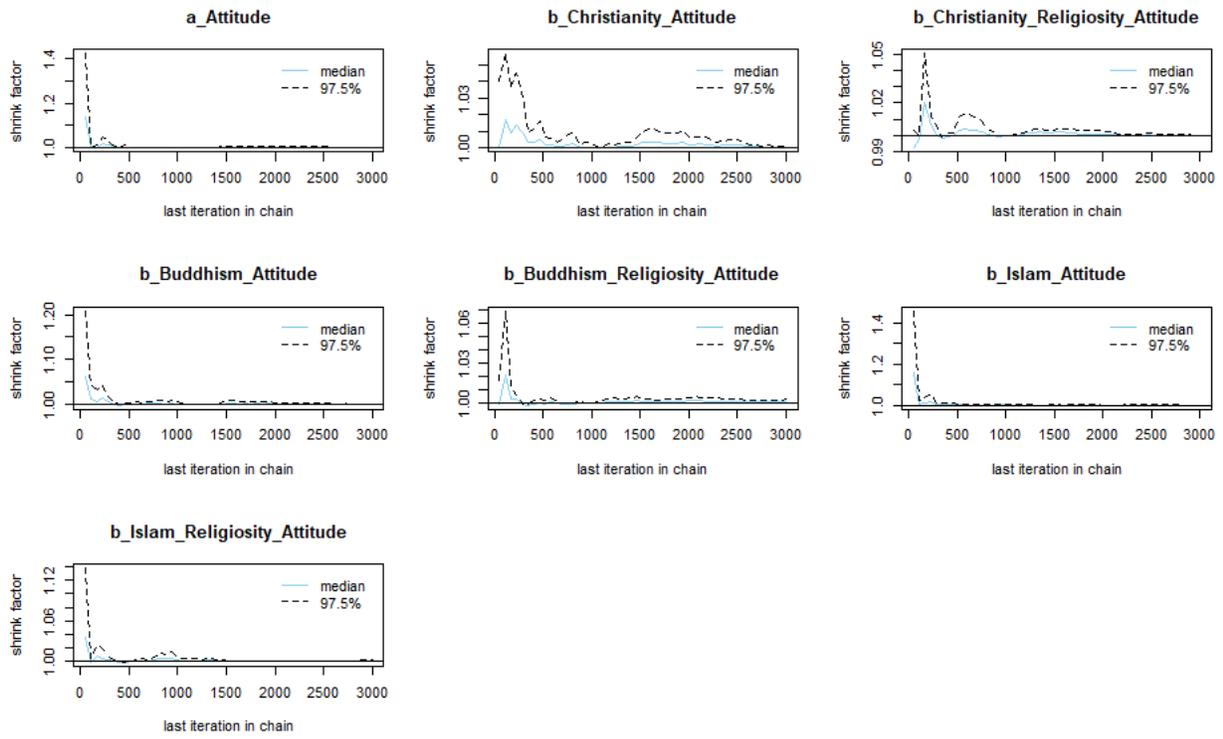
Figure S3.2: Gelman diagnostic for model 3

ACF diagnostic
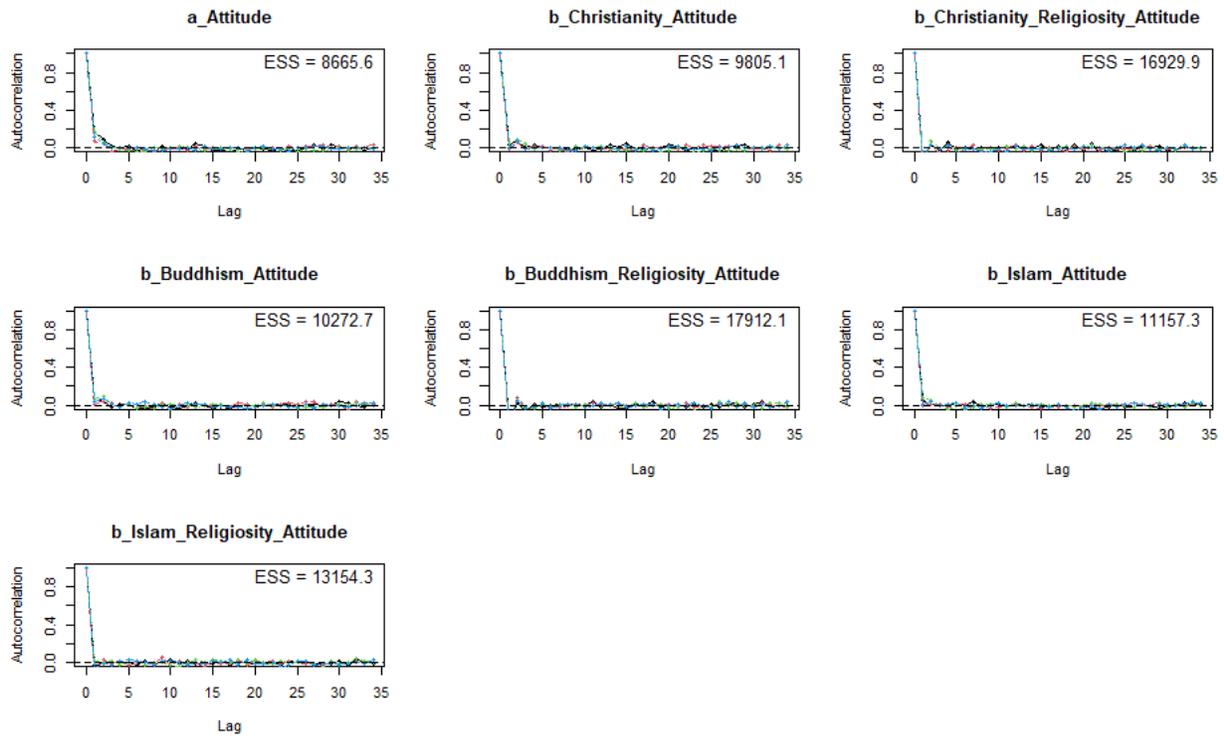
Figure S3.3: ACF diagnostic for model 3

Posterior results

Interval distribution
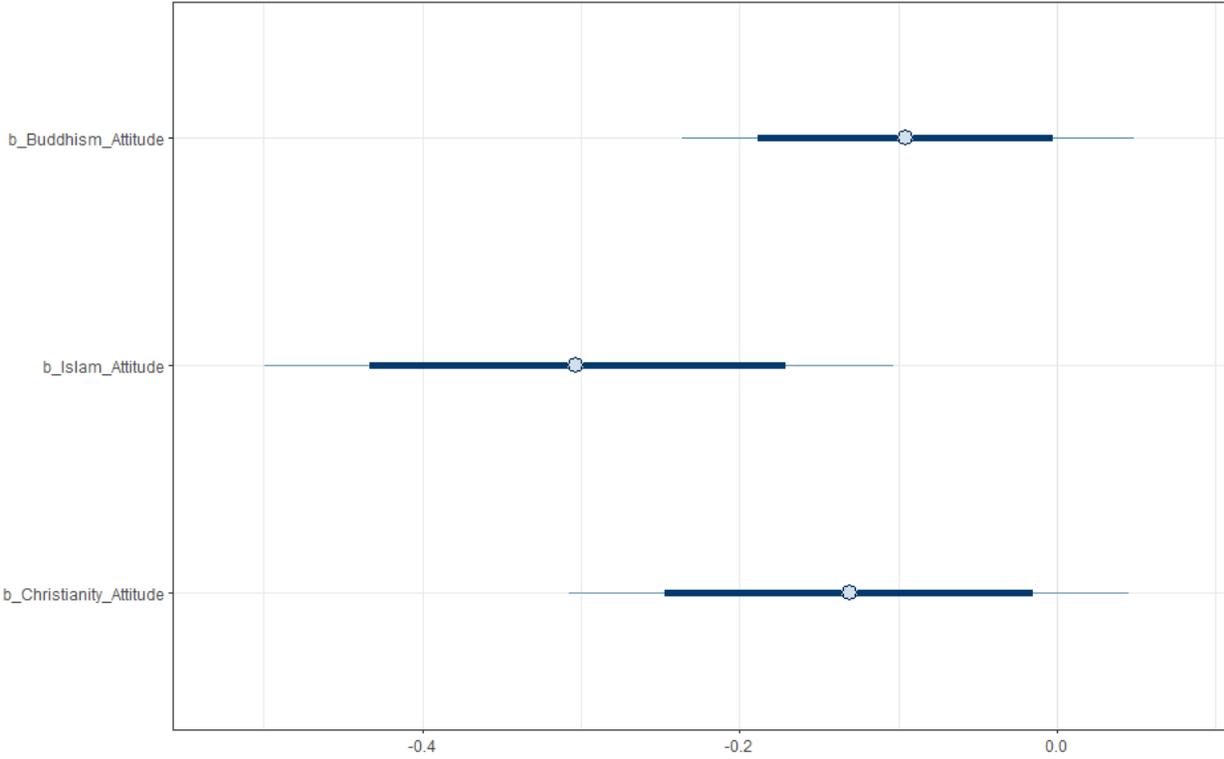
Figure S3.4: Model 3's posterior interval distribution for religious variables.
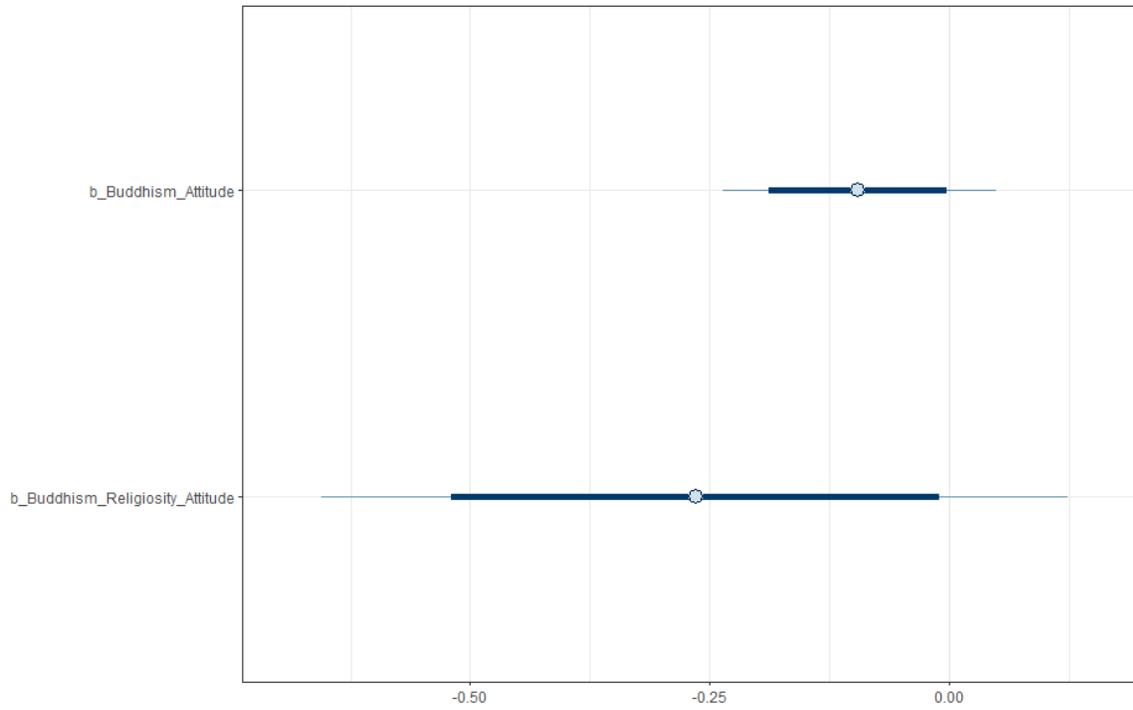
Figure S3.5: Model 3's posterior interval distribution for the interaction between the Buddhism and Religiosity variables.
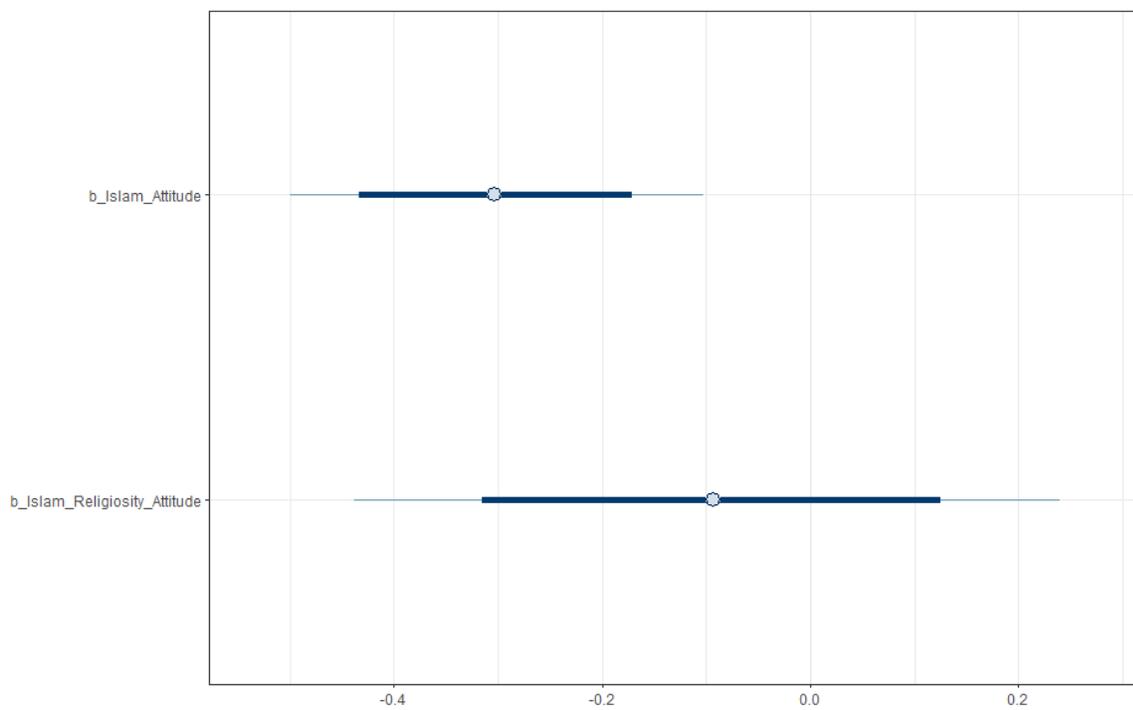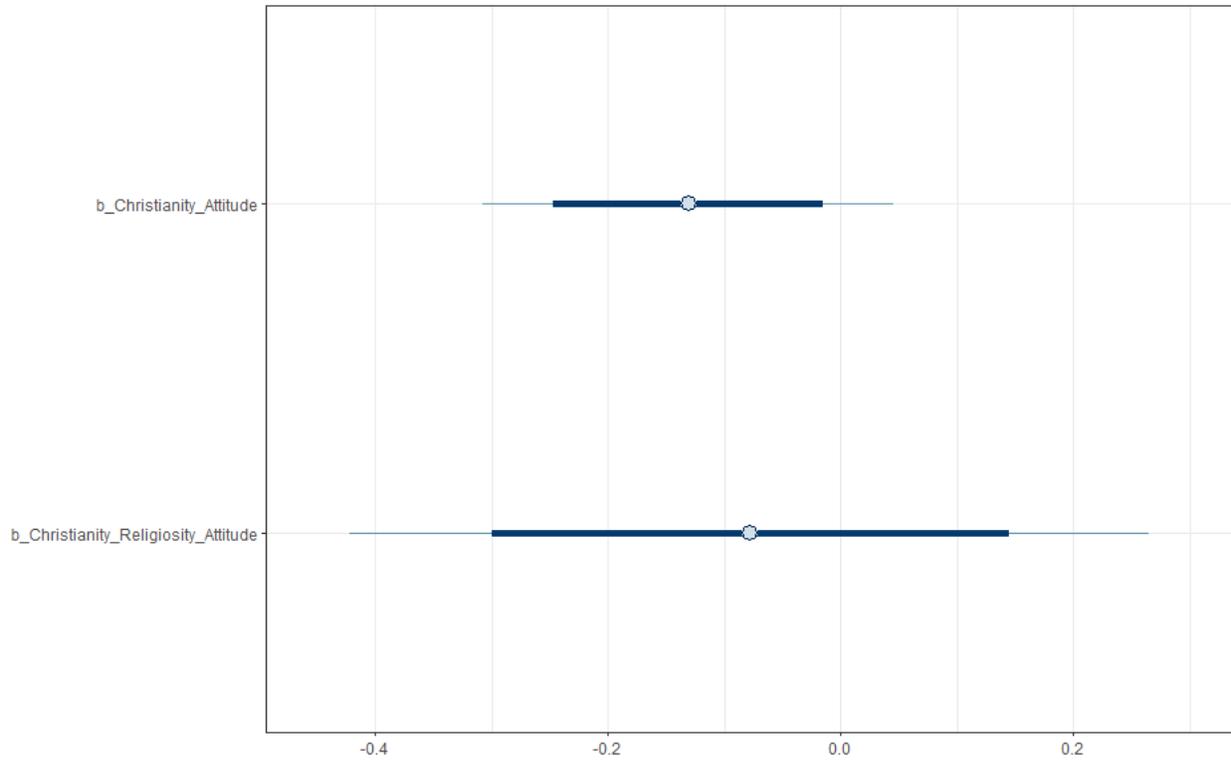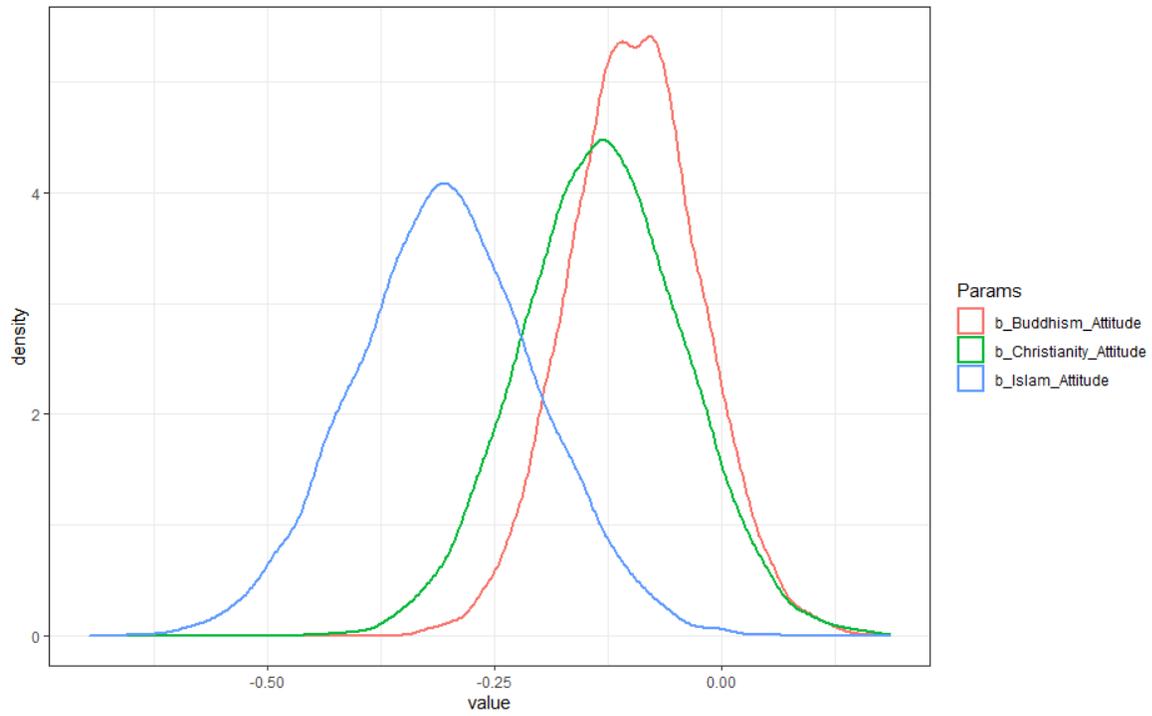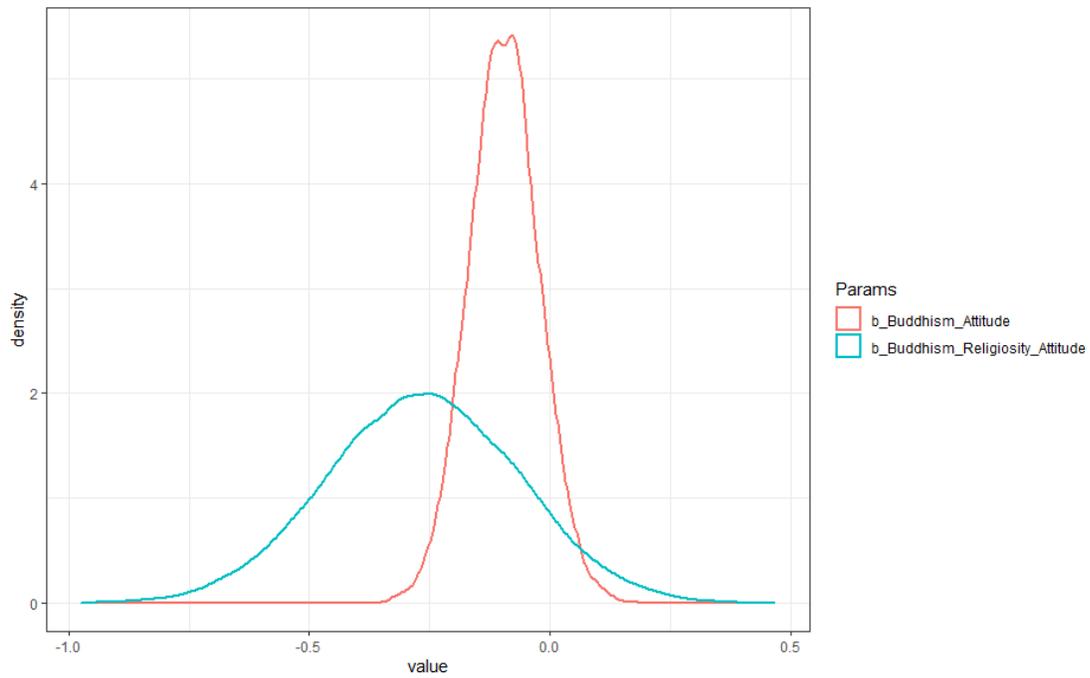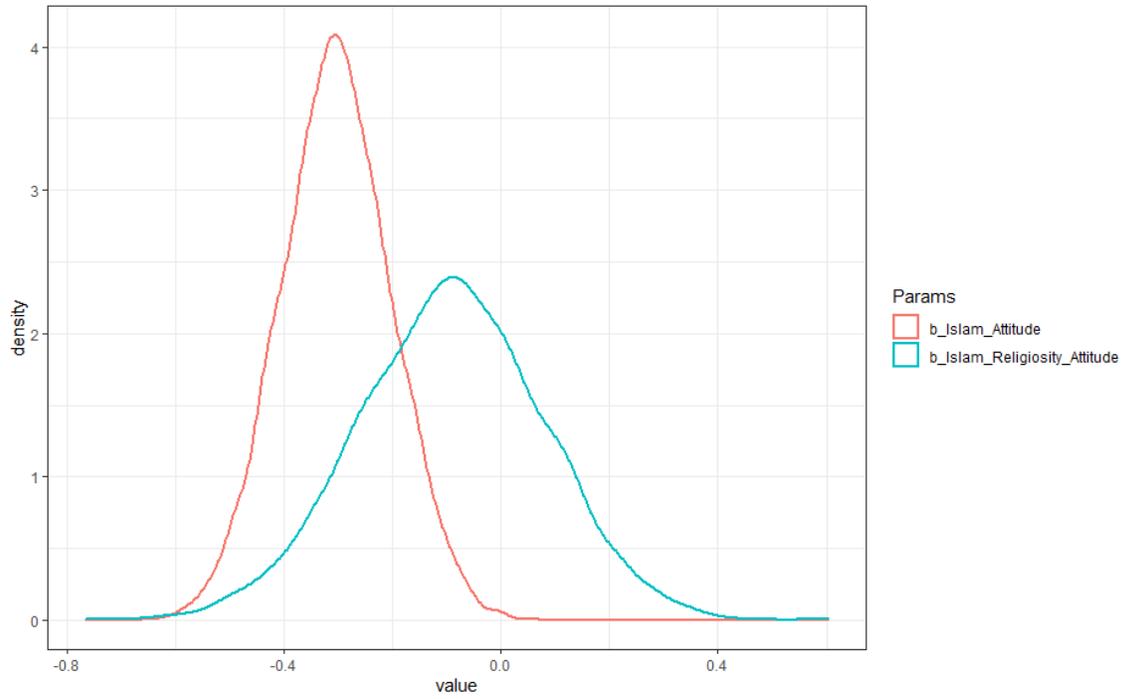

Figure S3.6: Model 3's posterior interval distribution for the interaction between the Islam and Religiosity variables.
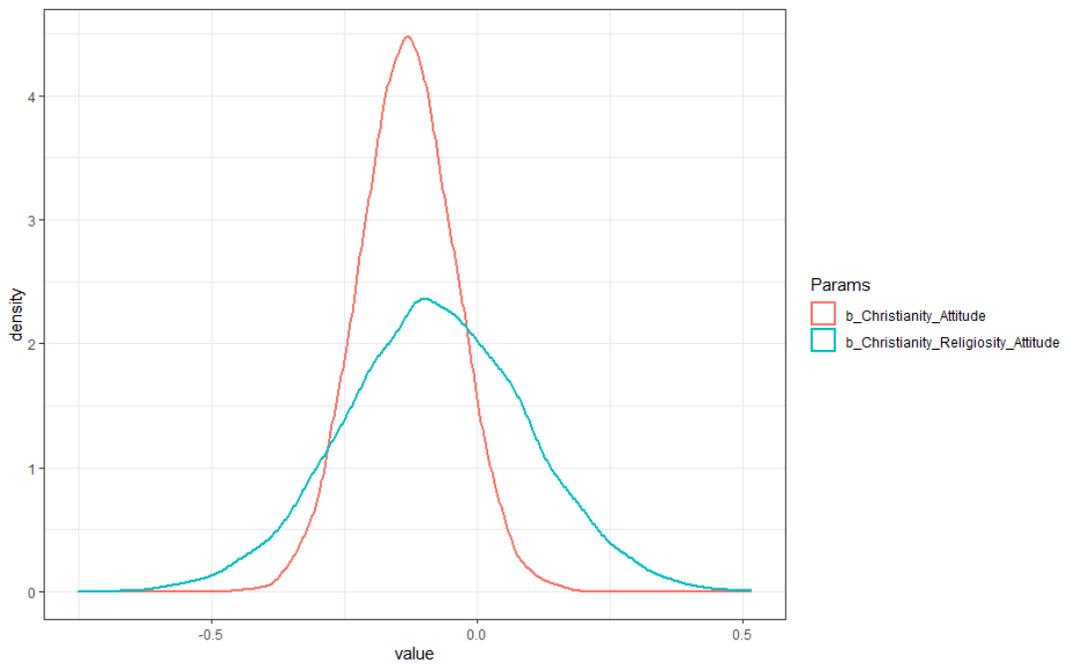
Figure S3.7: Model 3's posterior interval distribution for the interaction between the Christianity and Religiosity variables.
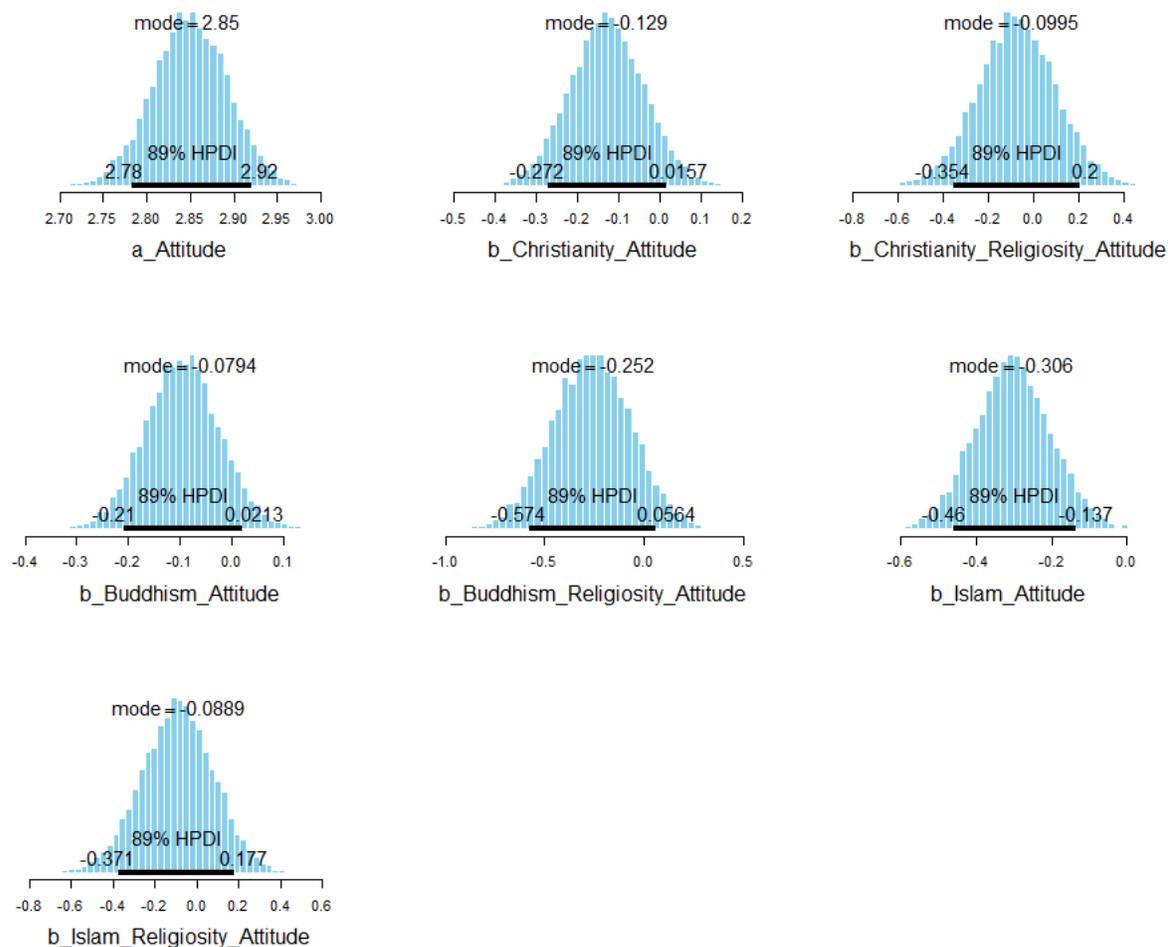
Density distribution

Figure S3.8: Model 3's posterior density distribution chart for the Religion variable.

Figure S3.9: Model 3's posterior density distribution chart the interaction between the Buddhism and Religiosity variables.

Figure S3.10: Model 3's posterior density distribution chart for the interaction between the Islam and Religiosity variables.

Figure S3.11: Model 3's posterior density distribution chart for the interaction between the Christianity and Religiosity variables.

Density distribution with HPDI

Figure S3.12: Model 3's density distribution with HDPI for the interaction between the Christianity and Religiosity variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_loo   -872.0 18.8
p_loo         7.9  0.6
looic      1744.0 37.5
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
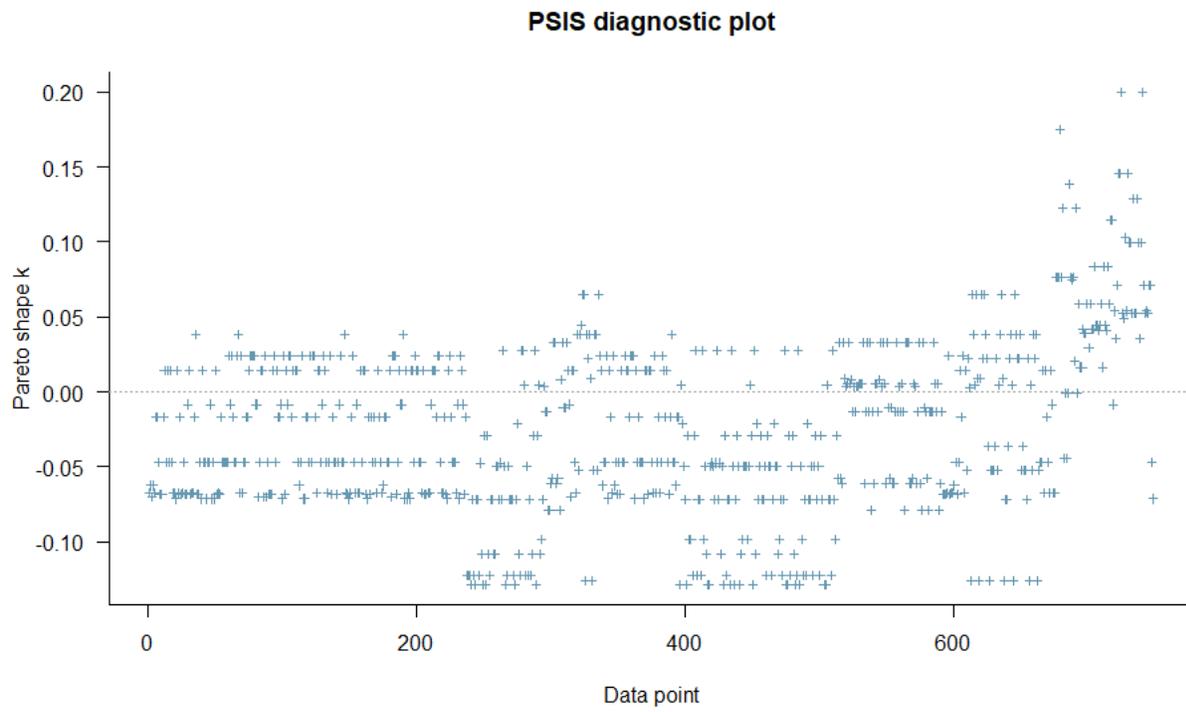
Figure S3.13: PSIS diagnostic plot for model 3

Marginal predictive distribution
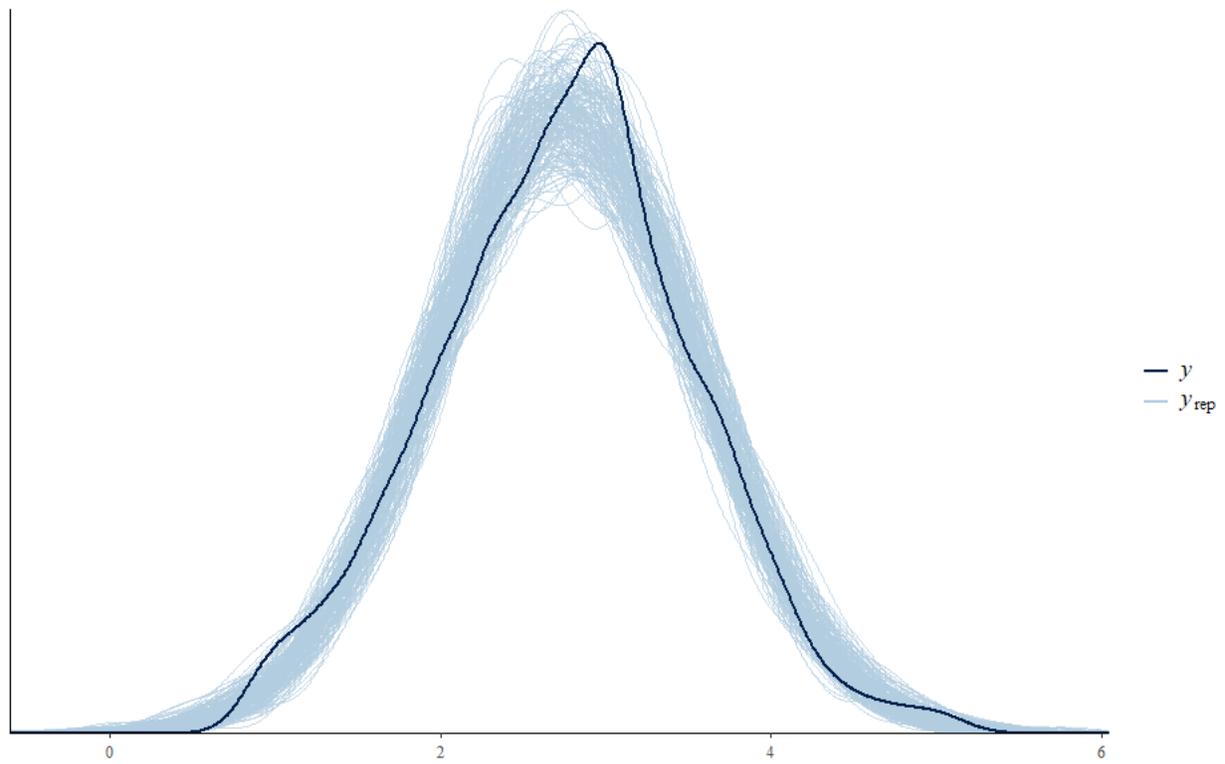
Figure S3.14: Marginal predictive distribution for model 3.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

           Estimate   SE
elpd_waic    -872.0 18.8
p_waic          7.9  0.6
waic         1743.9 37.5
```

Model 4

$$Attitude \sim Income + SchoolYear + Sex + Major + Christianity + Islam + Buddhism$$
$$+ Christianity\_Religiosity + Islam\_Religiosity + Buddhism\_Religiosity$$

Where

- $Attitude$ is attitude towards emotional AI (continuous variable);
- $Christianity$ is whether the respondent's religion is Christianity (binary variable);
- $Islam$ is whether the respondent's religion is Islam (binary variable);
- $Buddhism$ is whether the respondent's religion is Buddhism (binary variable);
- $Religiosity$ is the level of respondent's religiosity (ordinal/continuous variable);
- $Buddhism\_Religiosity$ is interaction between $Buddhism$ and $Religiosity$ so that $Buddhism\_Religiosity = Buddhism * Religiosity$ (continuous variable);
- $Christianity\_Religiosity$ is interaction between $Christianity$ and $Religiosity$ so that $Christianity\_Religiosity = Christianity * Religiosity$ (continuous variable);
- $Islam\_Religiosity$ is interaction between $Islam$ and $Religiosity$ so that $Islam\_Religiosity = Islam * Religiosity$ (continuous variable).

Figure S4.0: Visualization of model 4.

Table S4.1: Posterior estimate of model 4

	Mean	SD	n_eff	Rhat
a_Attitude	2.10	0.17	7985	1
b_Christianity_Attitude	-0.15	0.09	11512	1
b_Christianity_Religiosity_Attitude	-0.03	0.17	13225	1
b_Buddhism_Attitude	-0.09	0.07	12126	1
b_Buddhism_Religiosity_Attitude	-0.25	0.19	15952	1
b_Islam_Attitude	-0.27	0.10	10155	1
b_Islam_Religiosity_Attitude	-0.14	0.17	12374	1
b_Income_Attitude	0.16	0.06	9652	1
b_SchoolYear_Attitude	0.05	0.03	12855	1
b_Sex_Attitude	0.15	0.06	13012	1
b_Major_Attitude	0.15	0.06	15121	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics

Trace plot diagnostic
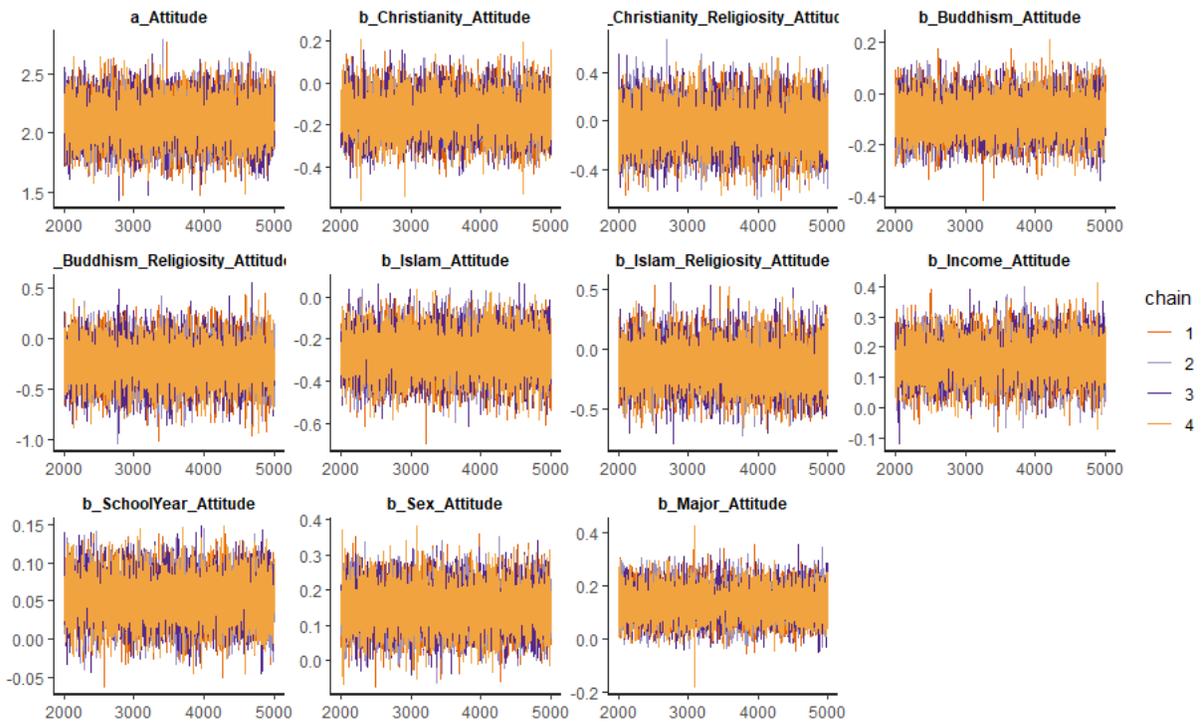
Figure S4.1: Trace plot diagnostic for model 4.

Gelman diagnostic
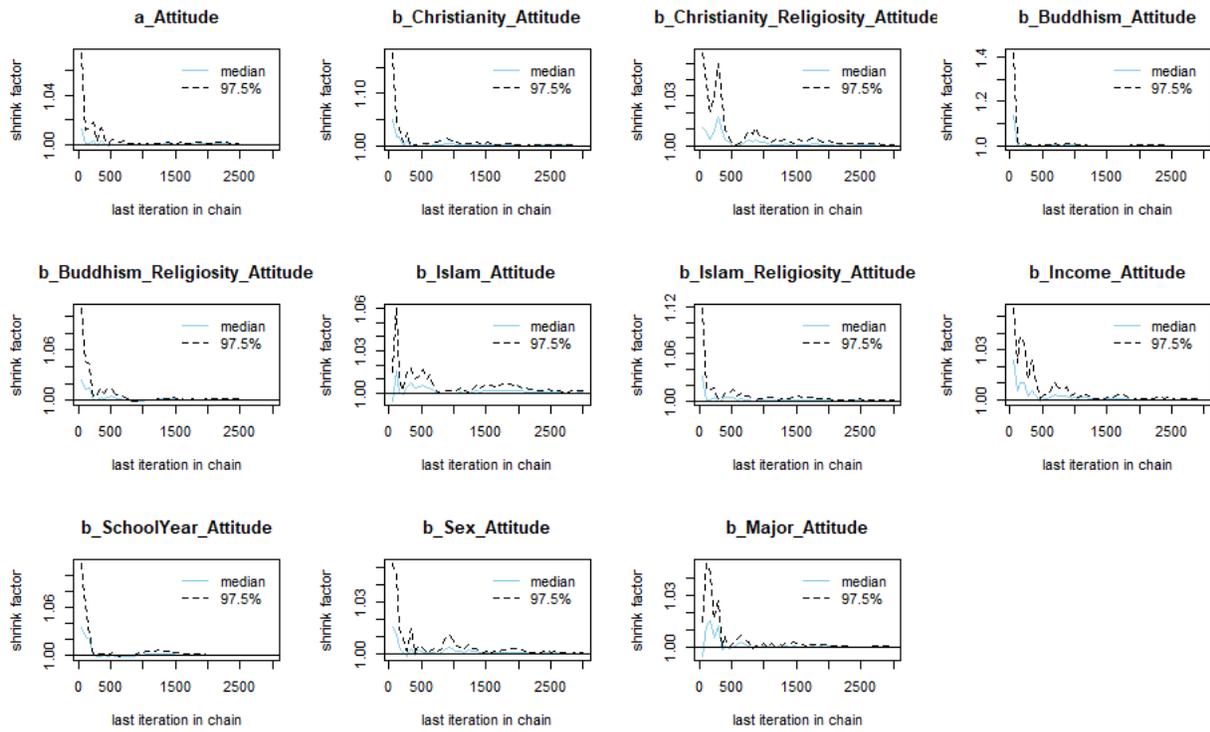
Figure S4.2: Gelman diagnostic for model 4

ACF diagnostic
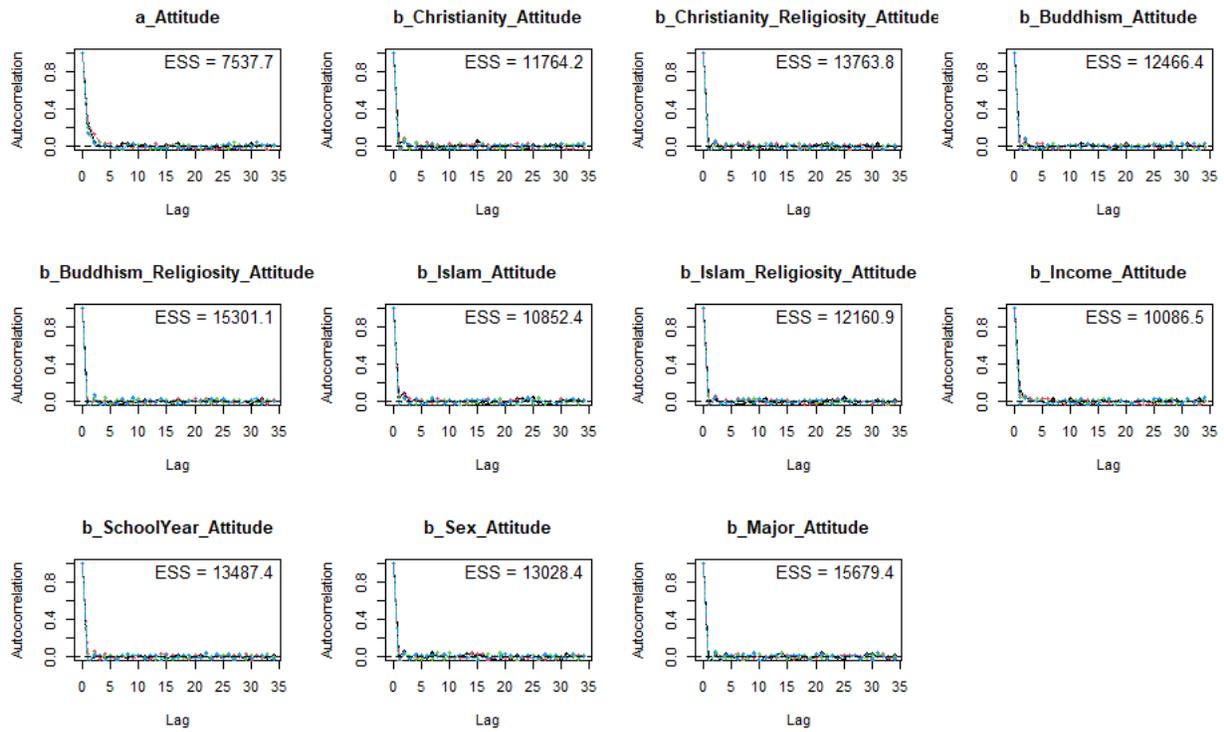
Figure S4.3: ACF diagnostic for model 4.

Posterior results

Interval distribution
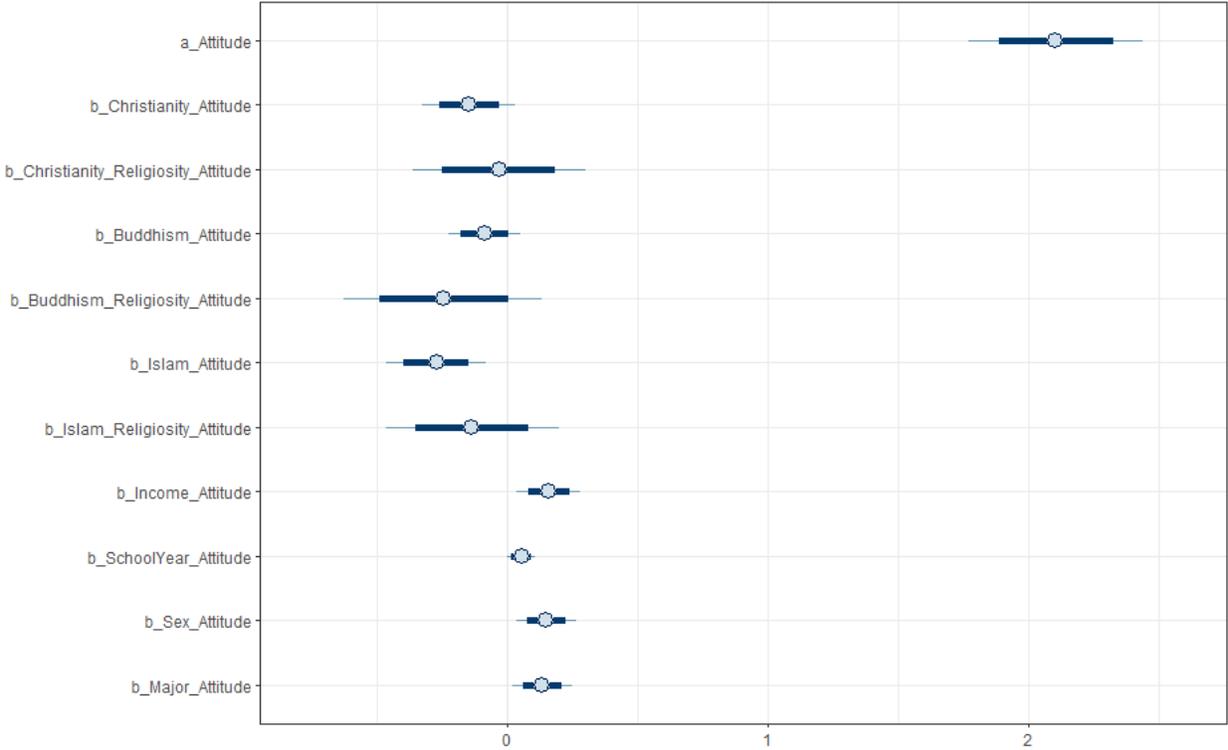
Figure S4.4: Model 4's posterior interval distribution for all explanatory variables.
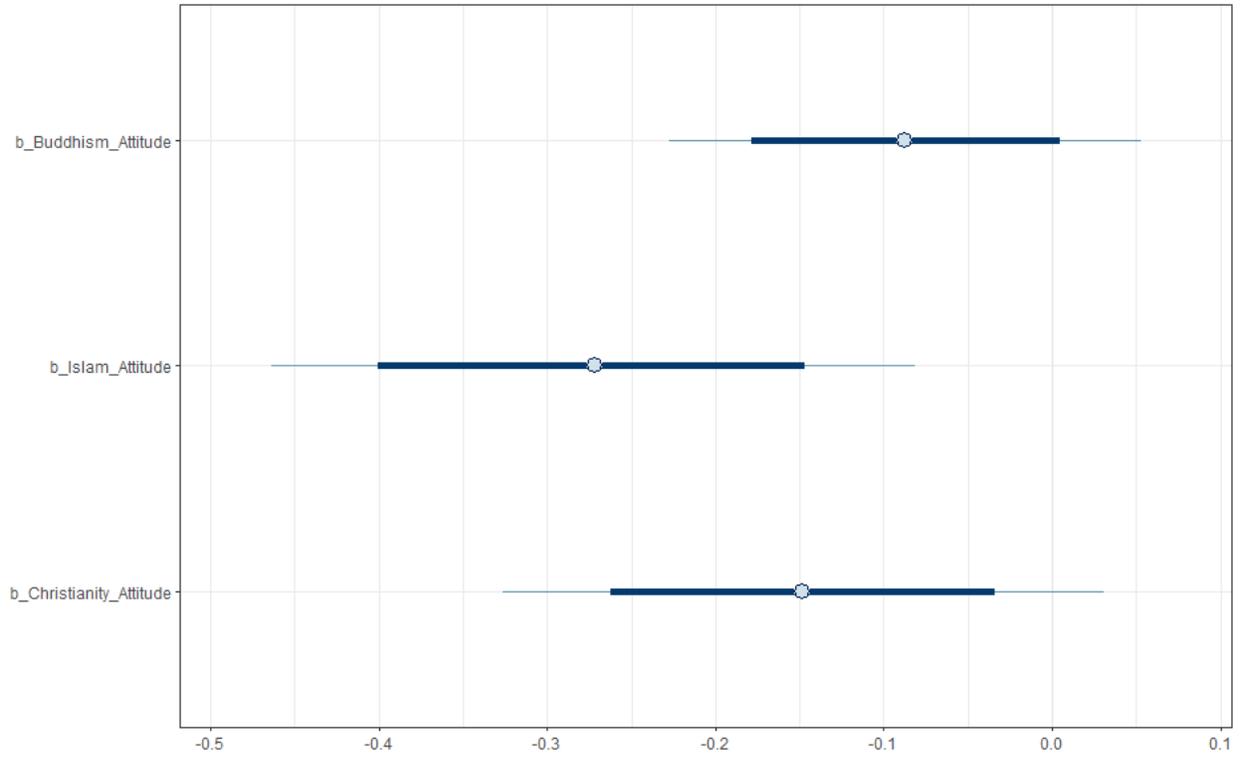
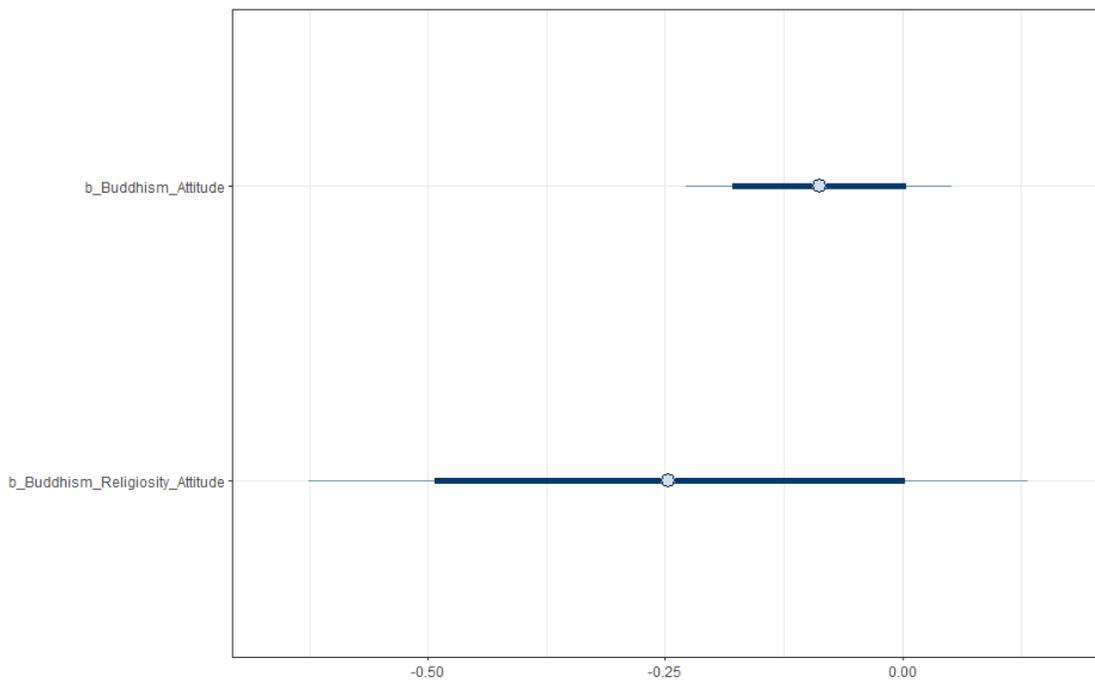**Figure S4.5:** Model 4's posterior interval distribution for religious variables.

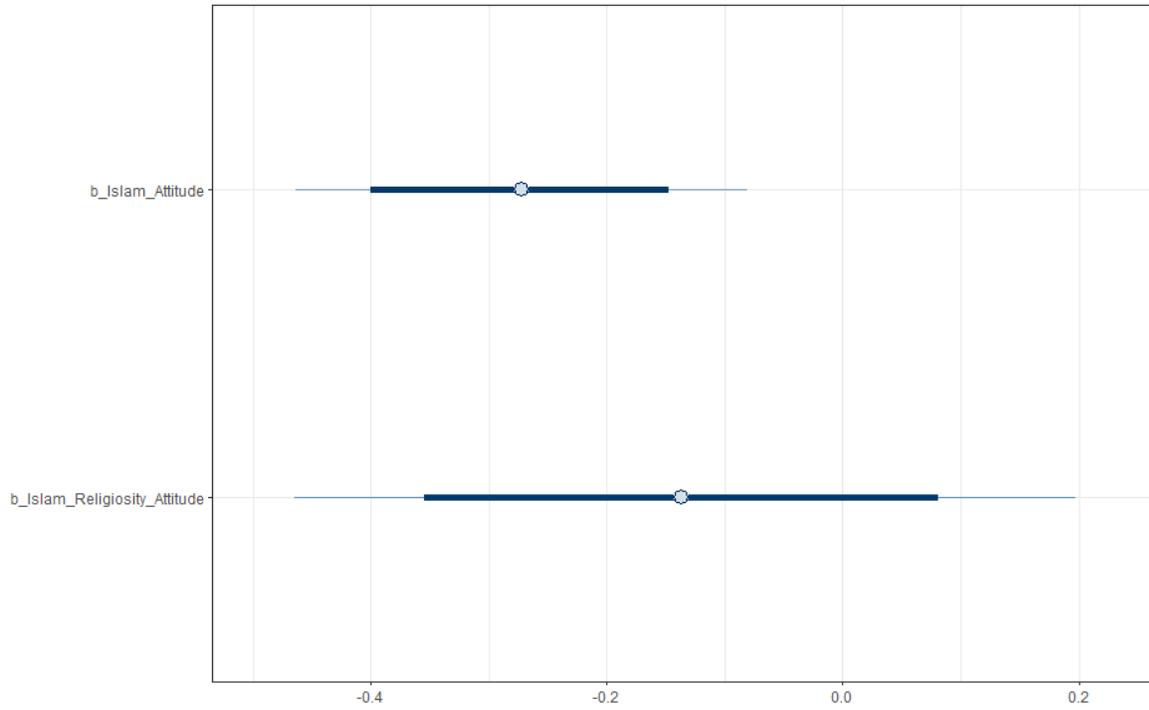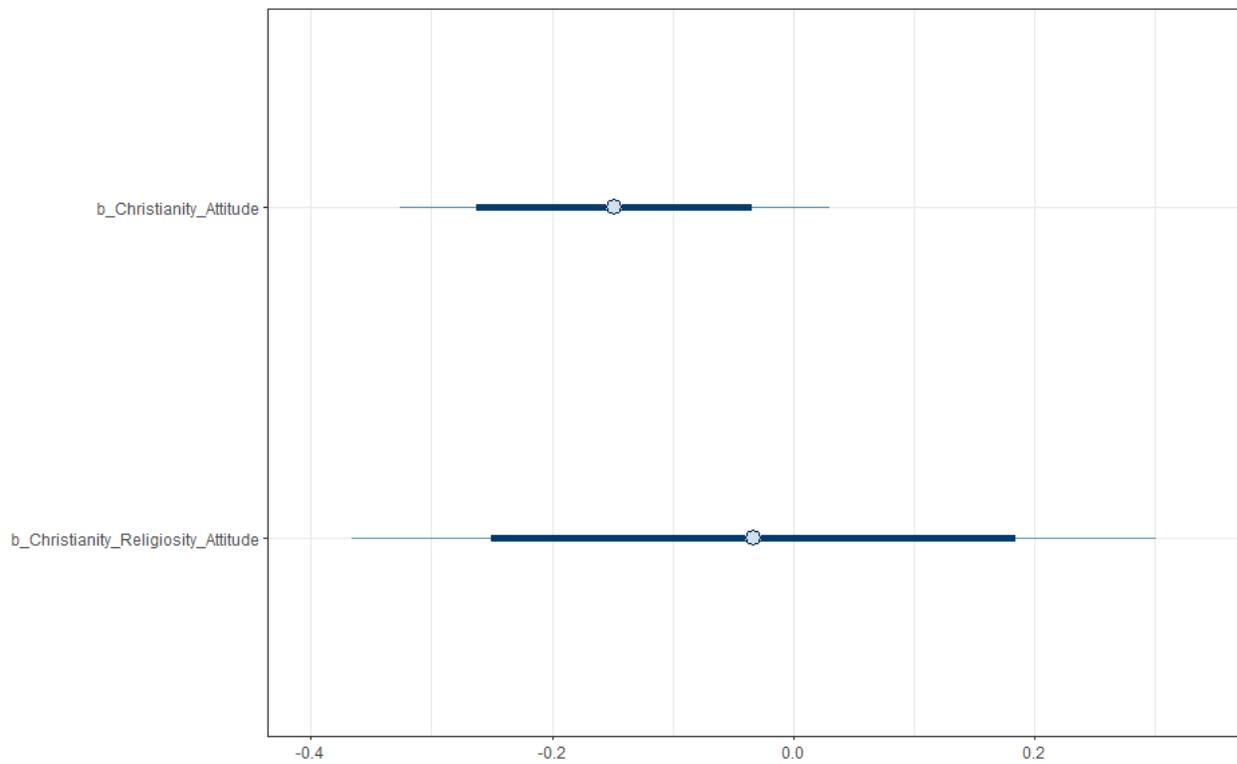**Figure S4.6:** Model 4's posterior interval distribution for the interaction between the Buddhism and Religiosity variables.
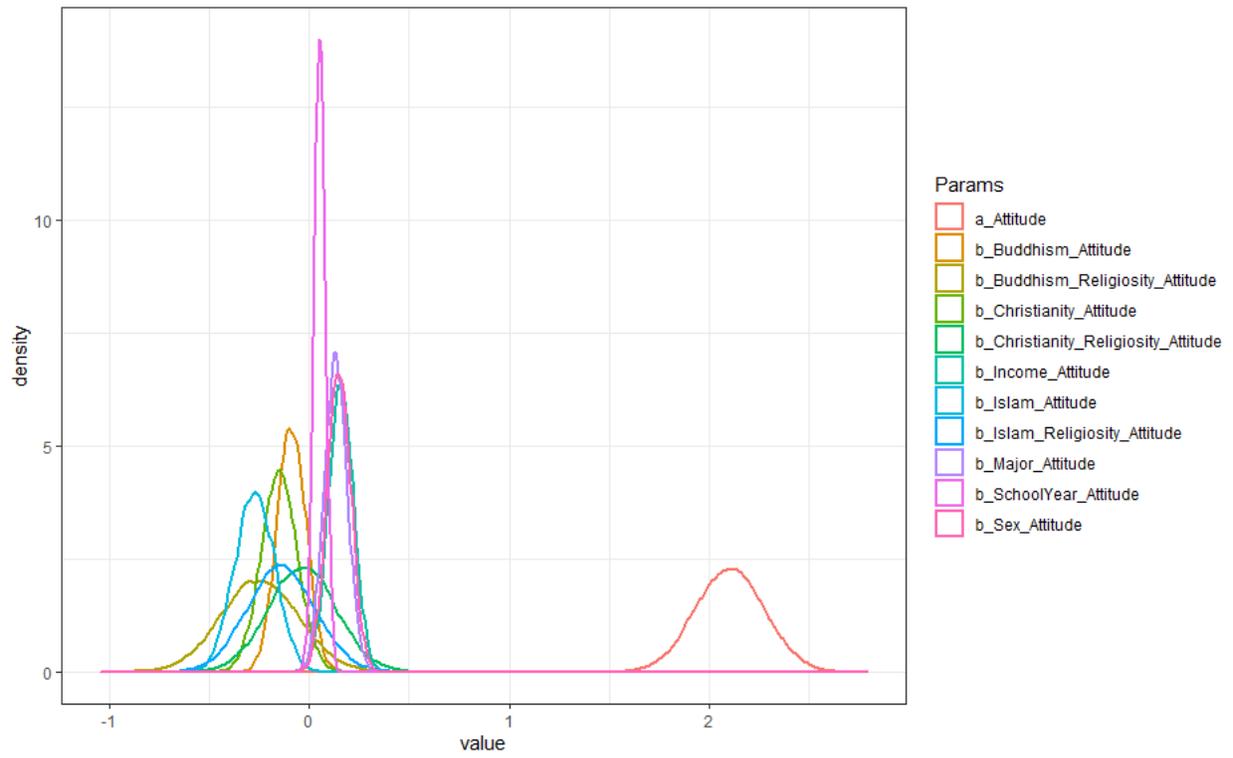
Figure S4.7: Model 4's posterior interval distribution for the interaction between the Islam and Religiosity variables.

Figure S4.8: Model 4's posterior interval distribution for the interaction between the Christianity and Religiosity variables.

Density distribution

Figure S4.9: Model 4's density distribution for the all the explanatory variables.
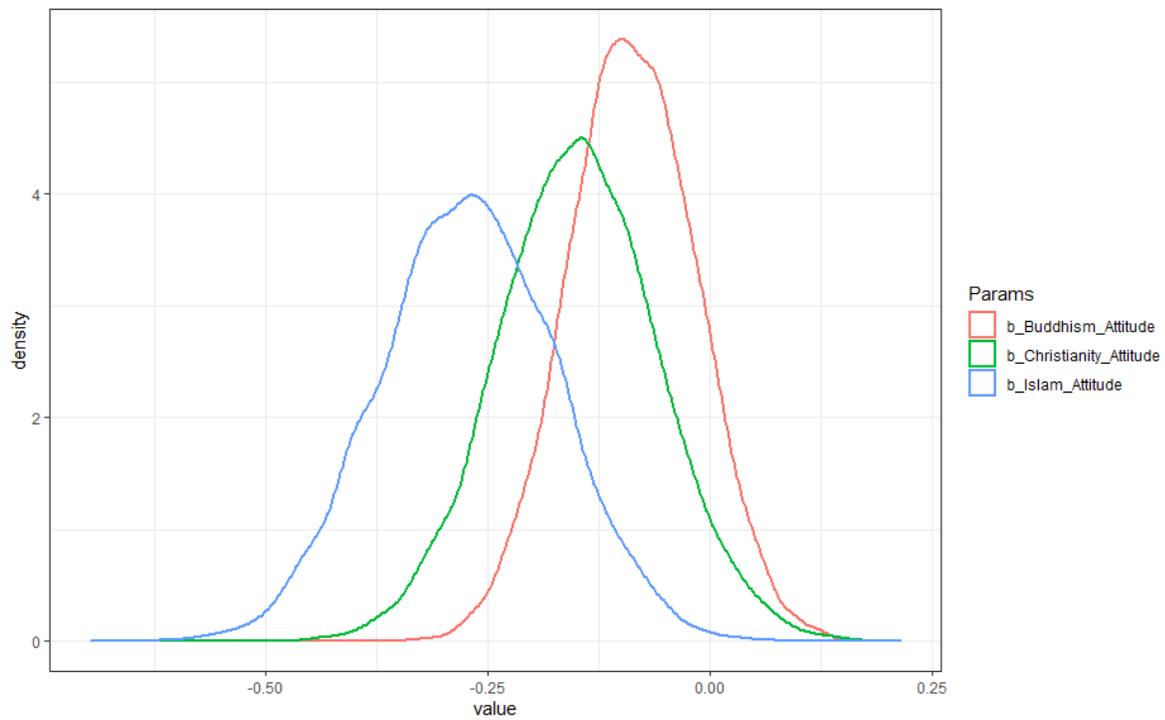
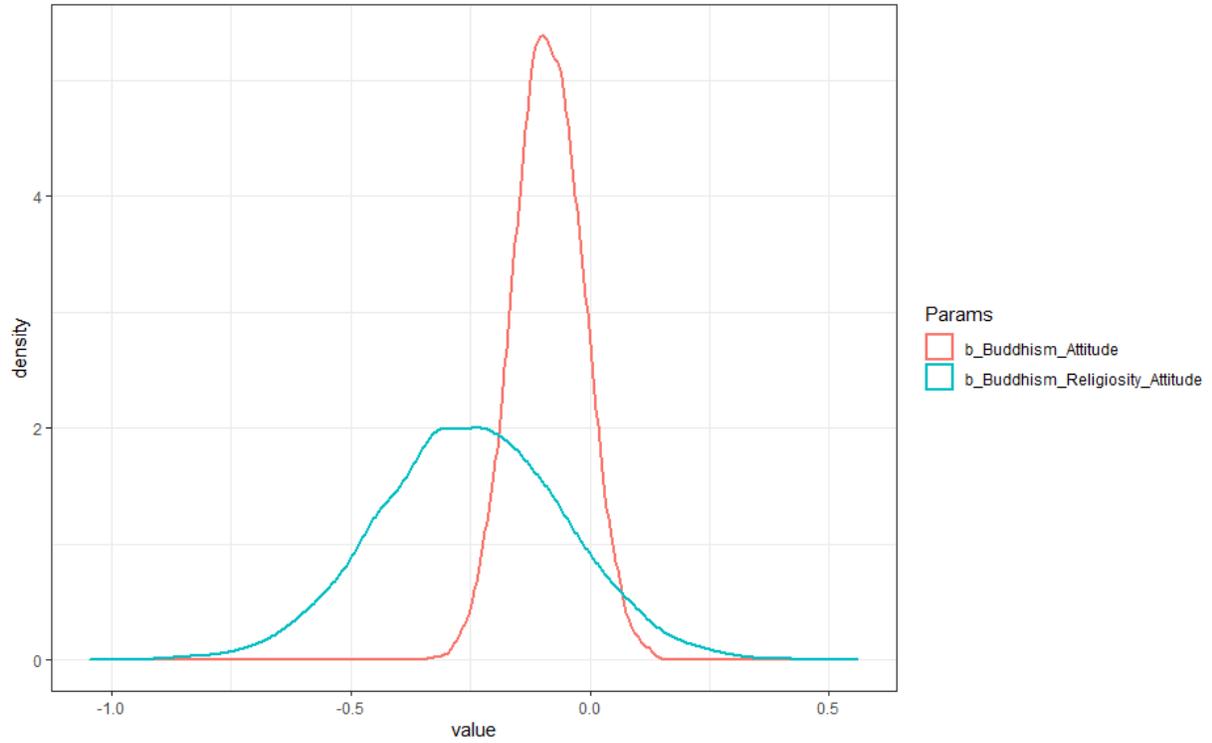**Figure S4.10:** Model 4's posterior density distribution for the all the Religion variable.

Figure S4.11: Model 4's posterior density distribution chart the interaction between the Buddhism and Religiosity variables.
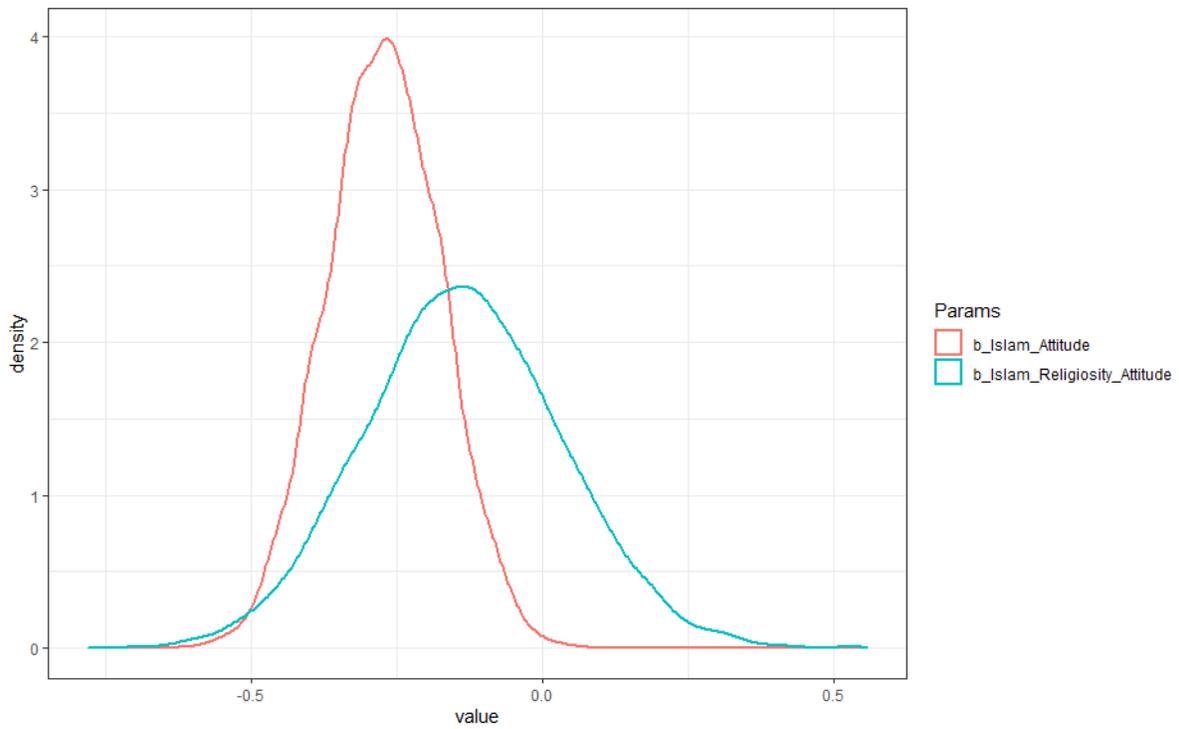

Figure S4.12: Model 4's posterior density distribution chart the interaction between the Islam and Religiosity variables.
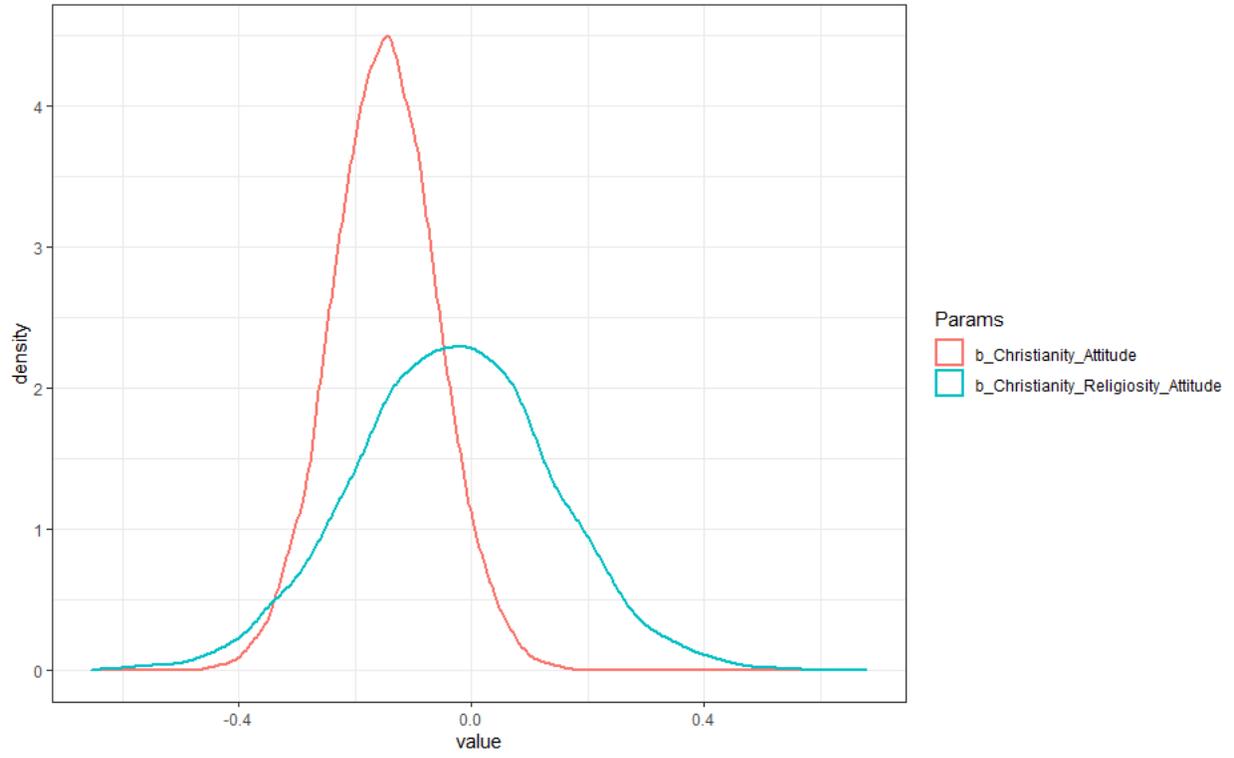
Figure S4.13: Model 4's posterior density distribution chart the interaction between the Christianity and Religiosity variables.
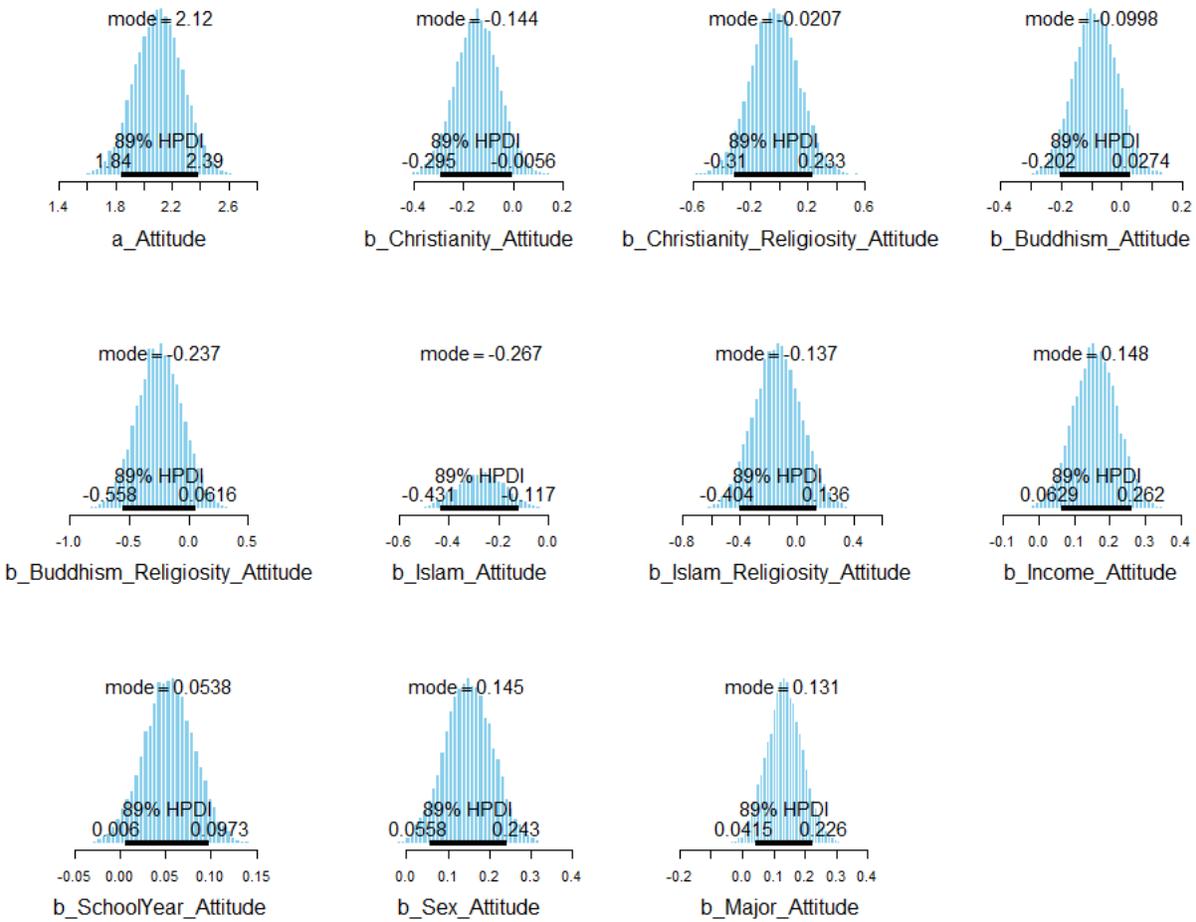
Density distribution with HPDI

Figure S4.14: Model 4's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

         Estimate   SE
elpd_loo   -862.6 18.9
p_loo        11.9  0.8
looic      1725.3 37.7
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
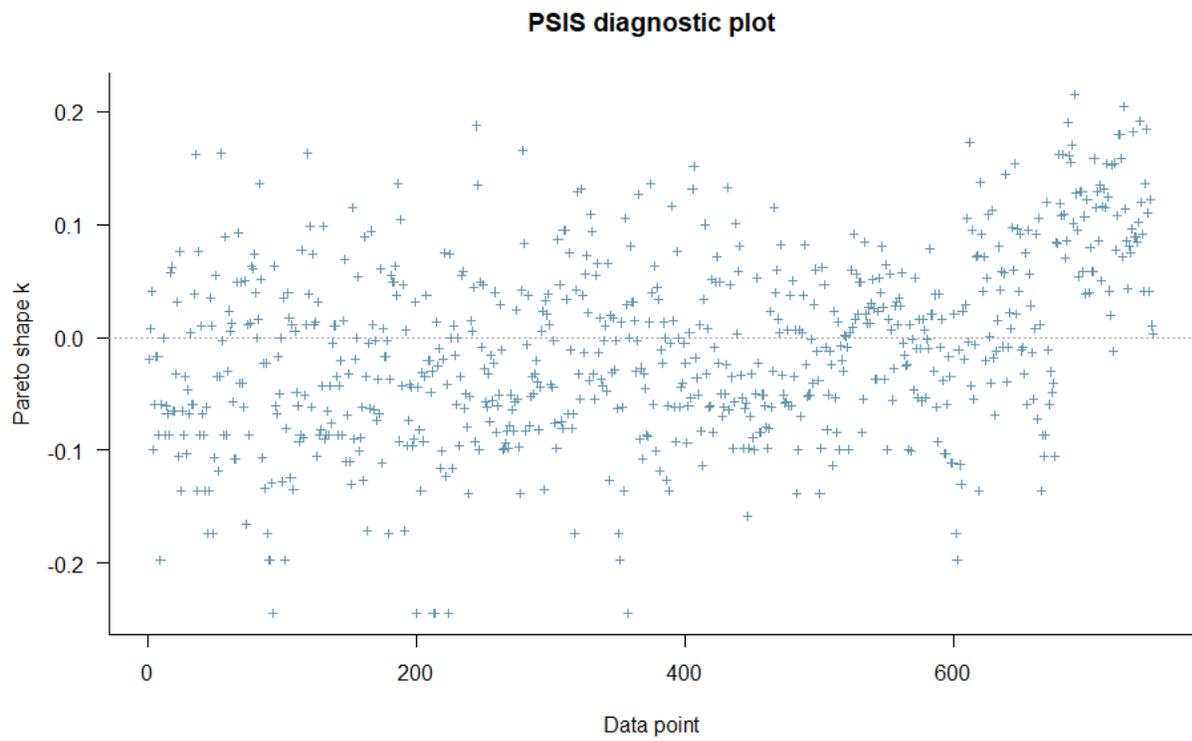
PSIS diagnostic plot

Figure S4.15: PSIS diagnostic plot for model 4.
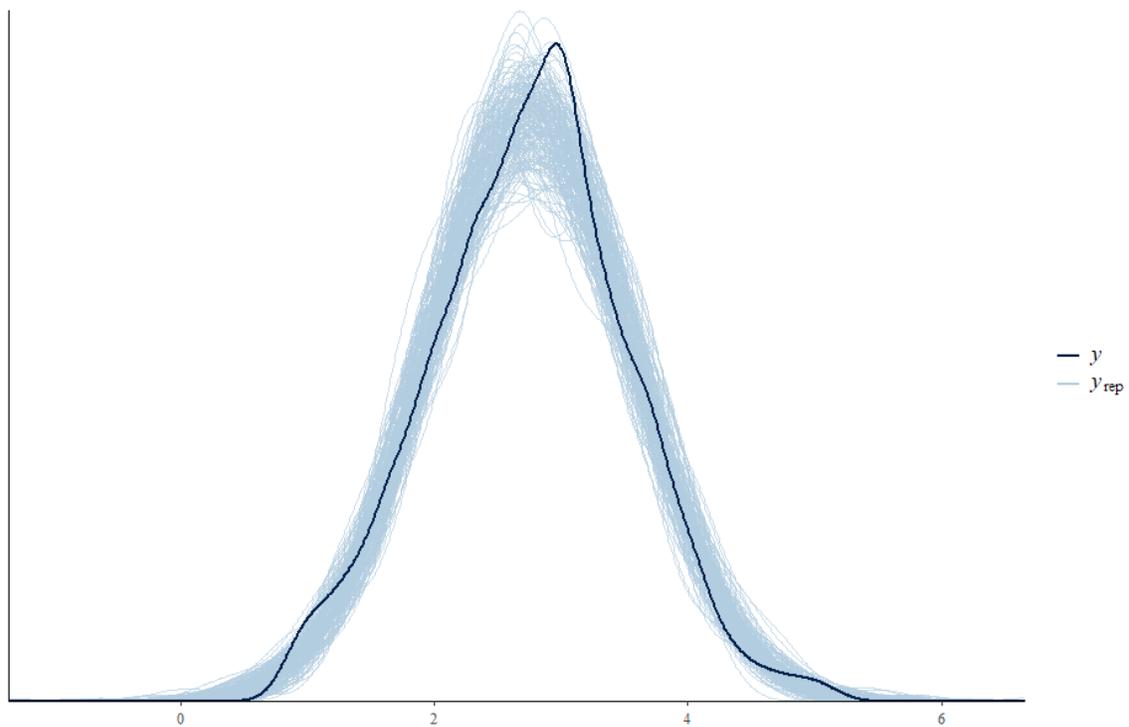
Marginal predictive distribution

Figure S4.16: Marginal predictive distribution for model 4.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_waic   -862.6 18.9
p_waic        11.9  0.8
waic        1725.3 37.7
```

Model 5

Equation:

$$Familiarity \sim Income + SchoolYear + Sex + Major$$

Where

Where *Familiarity* is the self-perceived familiarity with AI (continuous variable), *Income* is self-perceived family income (ordinal/continuous variable), *SchoolYear* is the school year of the respondent (ordinal/continuous variable), *Sex* is the biological sex of the respondent (binary variable), and *Major* is the major curriculum of the respondent (binary variable). Priors of all parameters' distribution are set as default which is 'uninformative'.
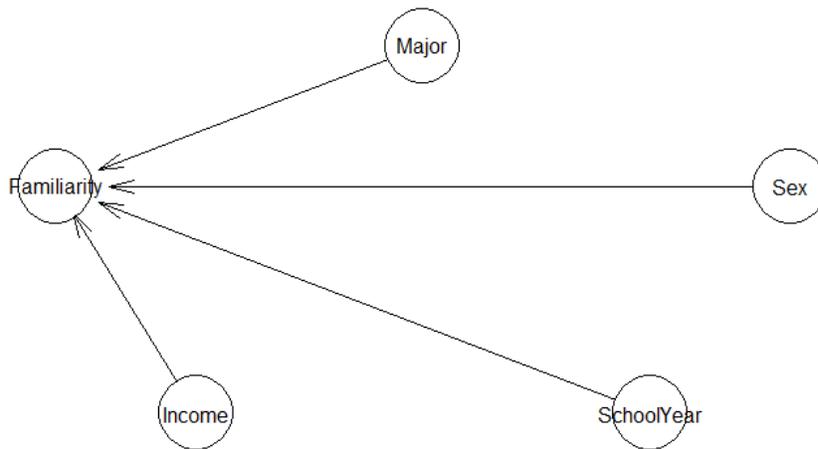

Figure S5.0: Visualization of model 5

Table S5.1: Posterior estimate of model 5

	Mean	SD	n_eff	Rhat
a_Familiarity	1.93	0.17	7852	1
b_Income_Familiarity	0.03	0.06	7156	1
b_SchoolYear_Familiarity	0.01	0.03	10521	1
b_Sex_Familiarity	0.25	0.06	10925	1
b_Major_Familiarity	0.10	0.06	12852	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics
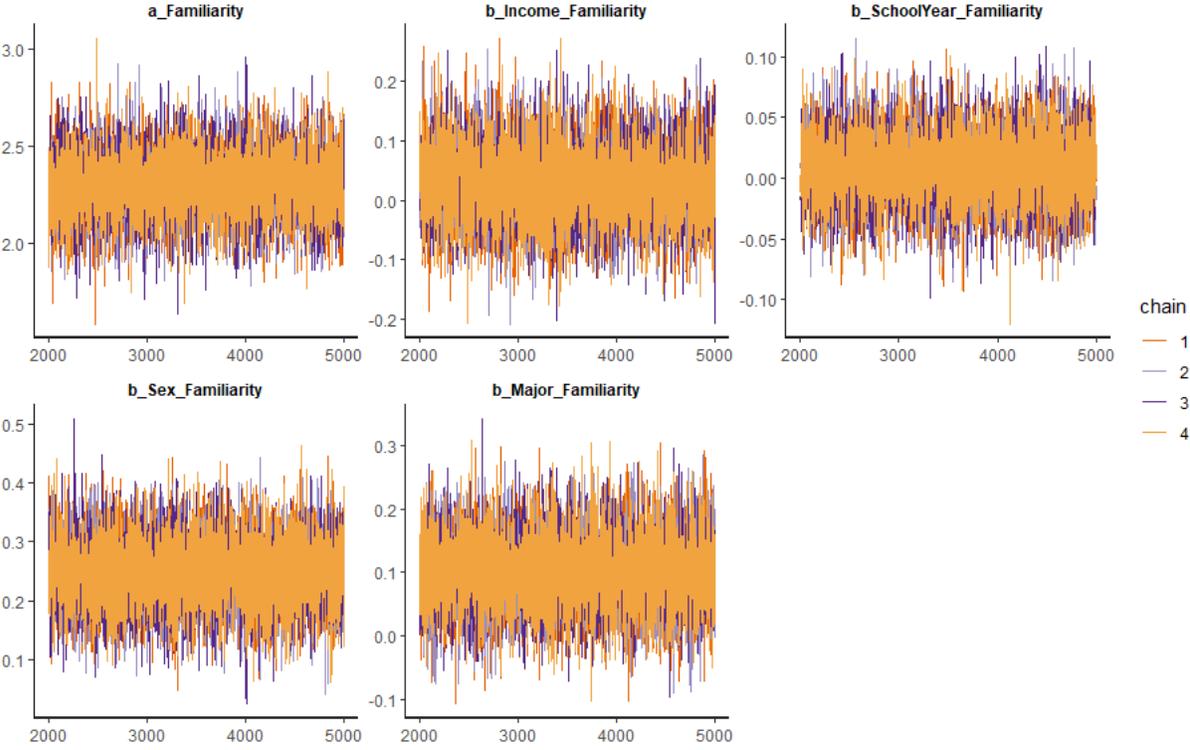
Trace plot diagnostic

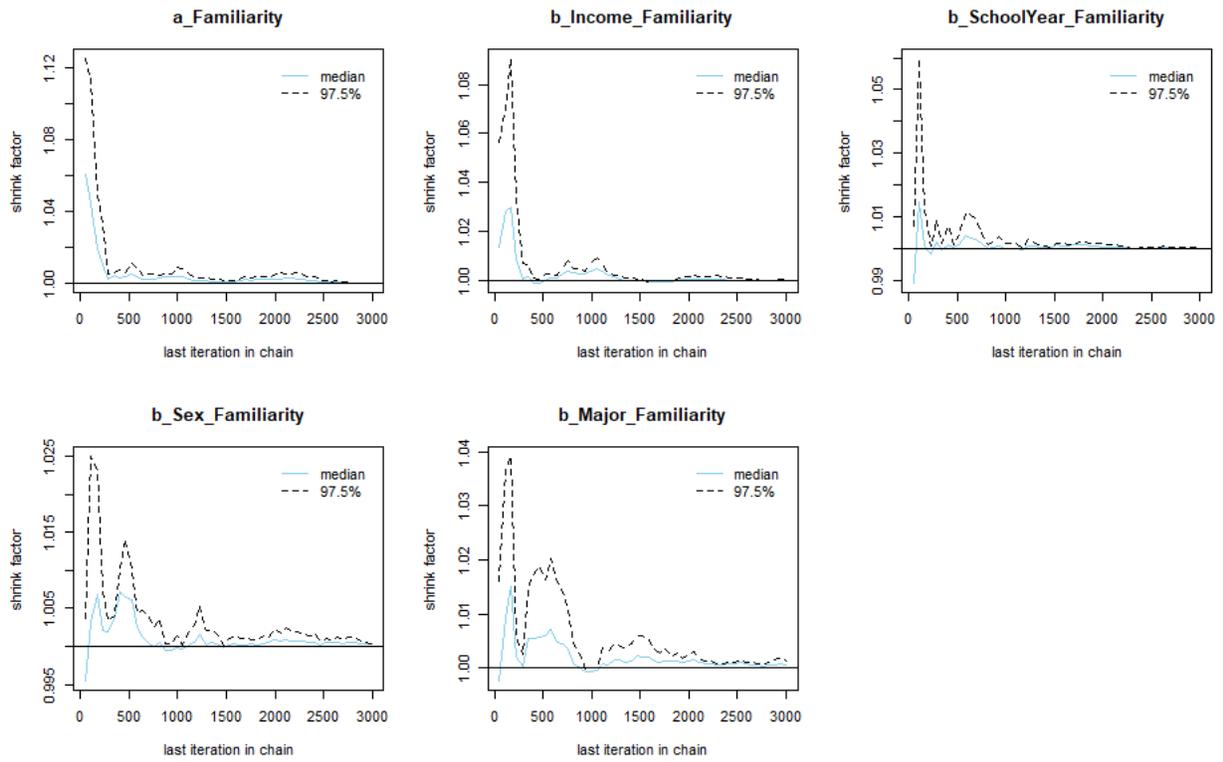**Figure S5.1:** Trace plot diagnostic for model 5.

Gelman diagnostic

Figure S5.2: Gelman diagnostic for model 5

ACF diagnostic

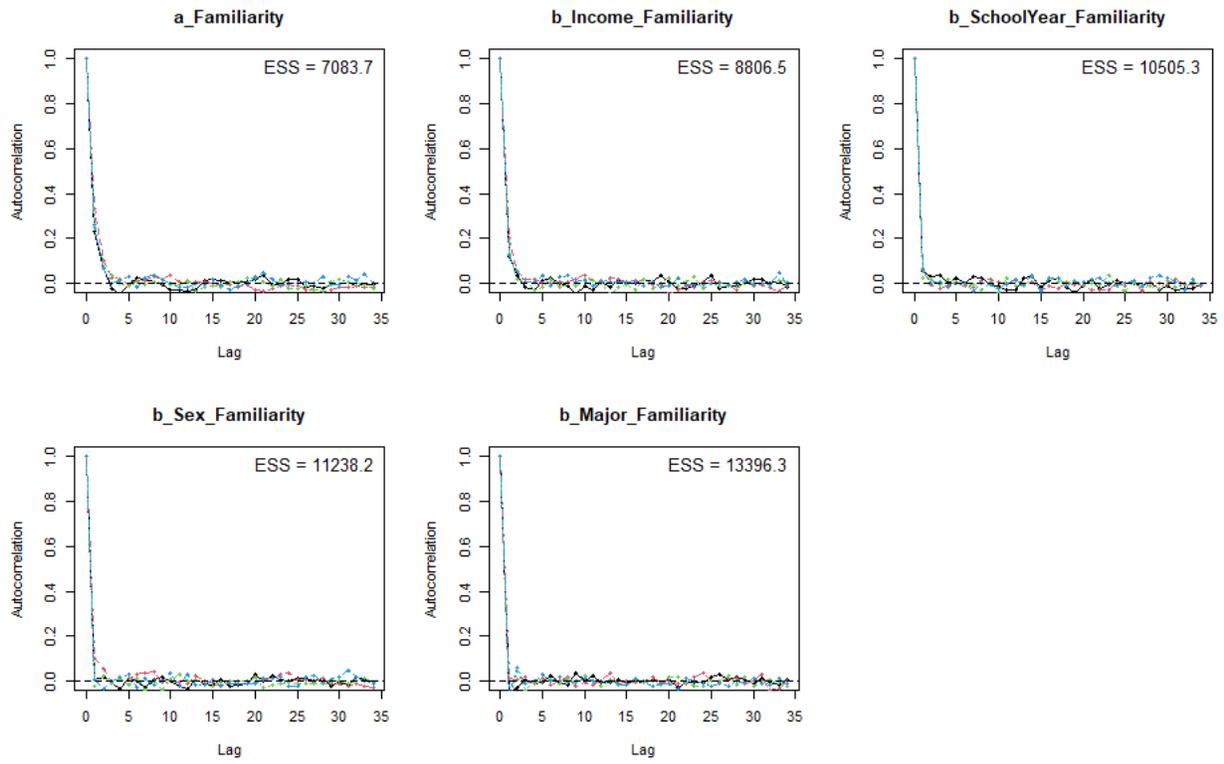**Figure S5.3:** ACF diagnostic for model 5.

Interval distribution
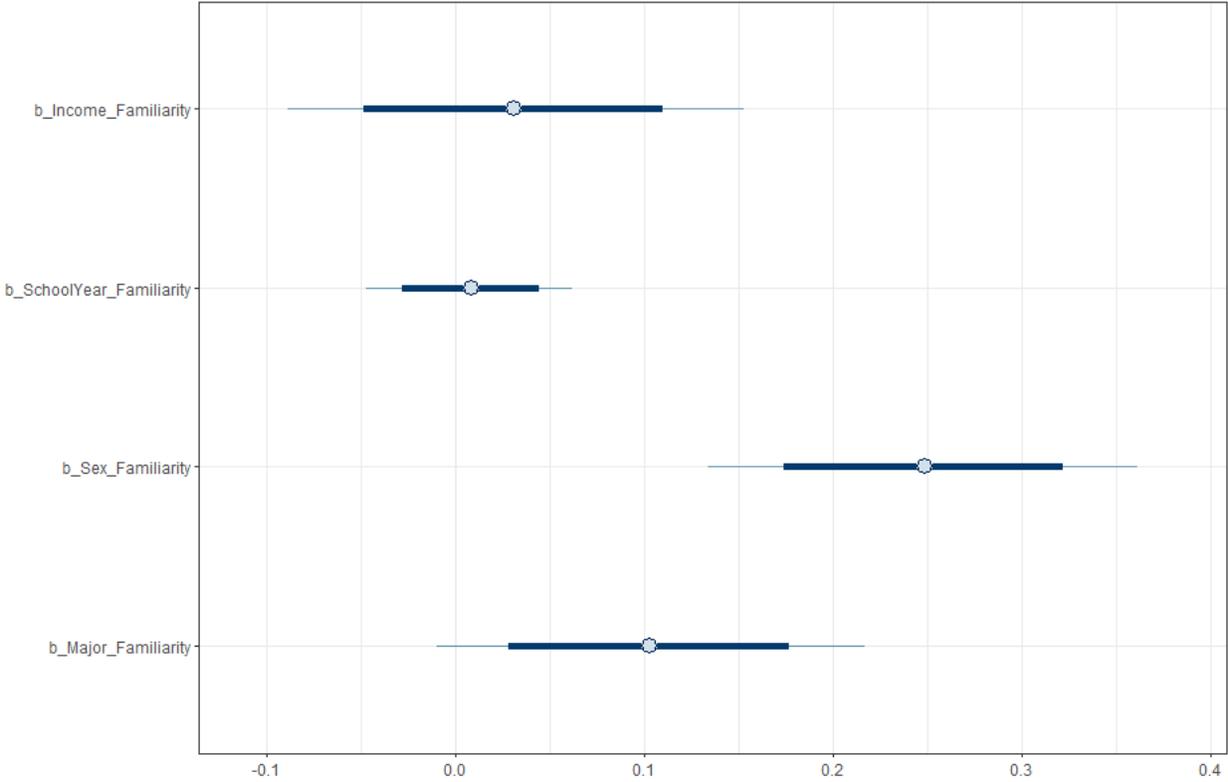

Figure S5.4: Model 5's posterior interval distribution for all explanatory variables.
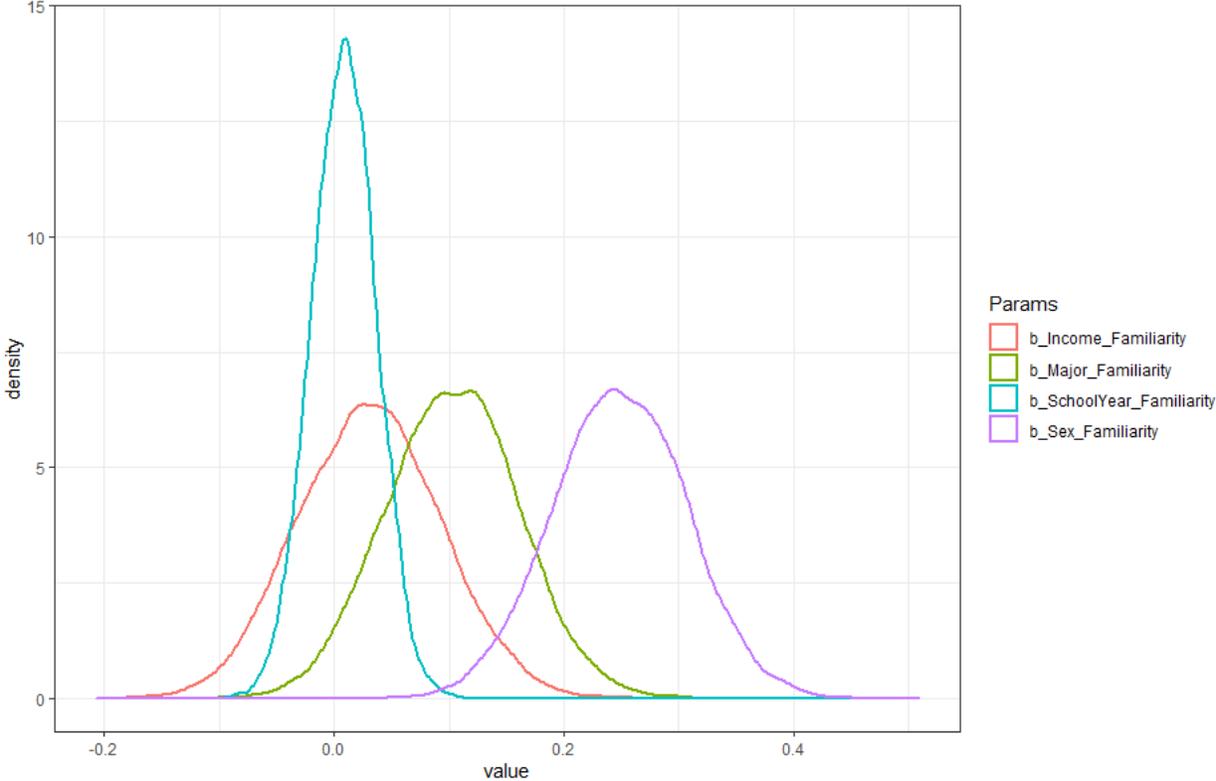
Figure S5.5: Model 5's posterior density distribution for all explanatory variables.
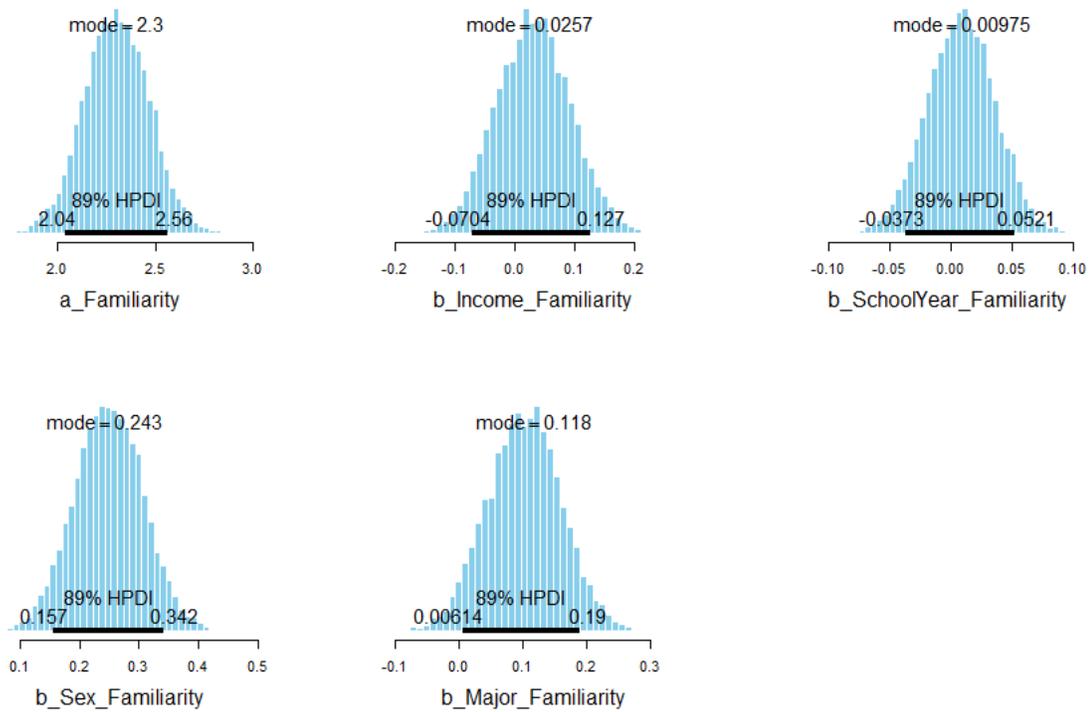
Density distribution with HPDI

Figure S5.5: Model 4's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_loo    -866.1 18.5
p_loo          5.7  0.3
looic       1732.2 37.0
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
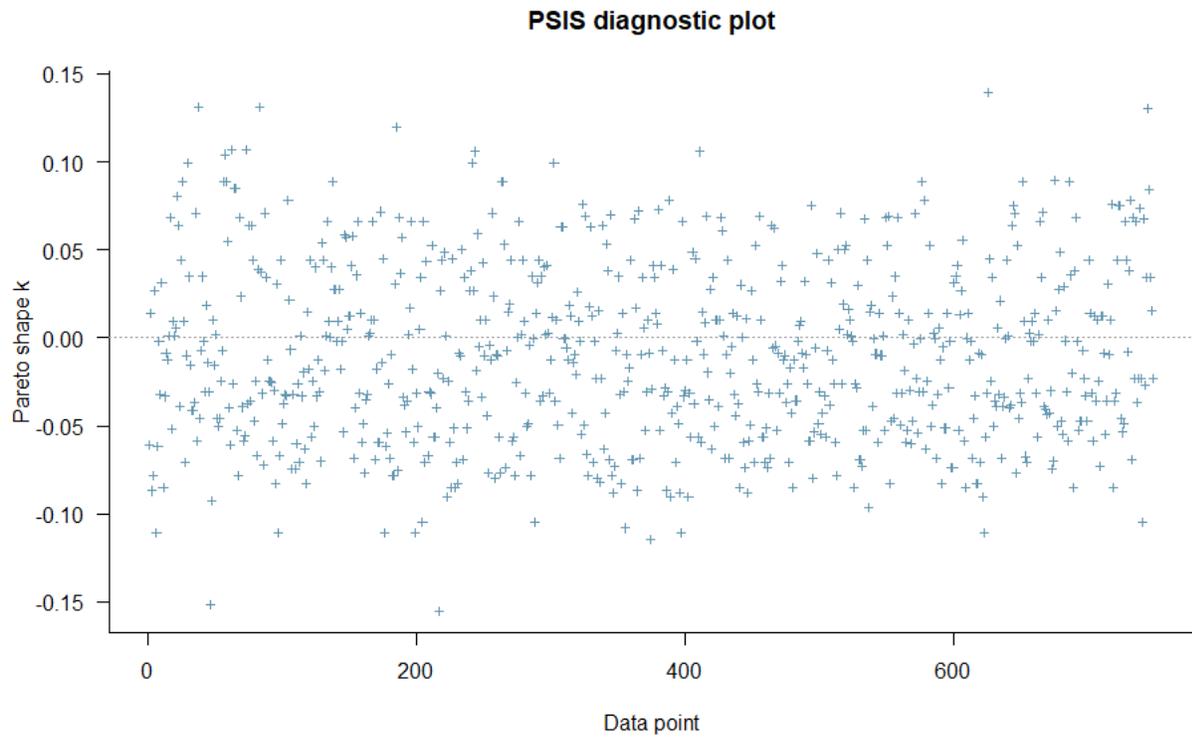
PSIS diagnostic plot

Figure S5.6: PSIS diagnostic plot for model 5.

Marginal predictive distribution
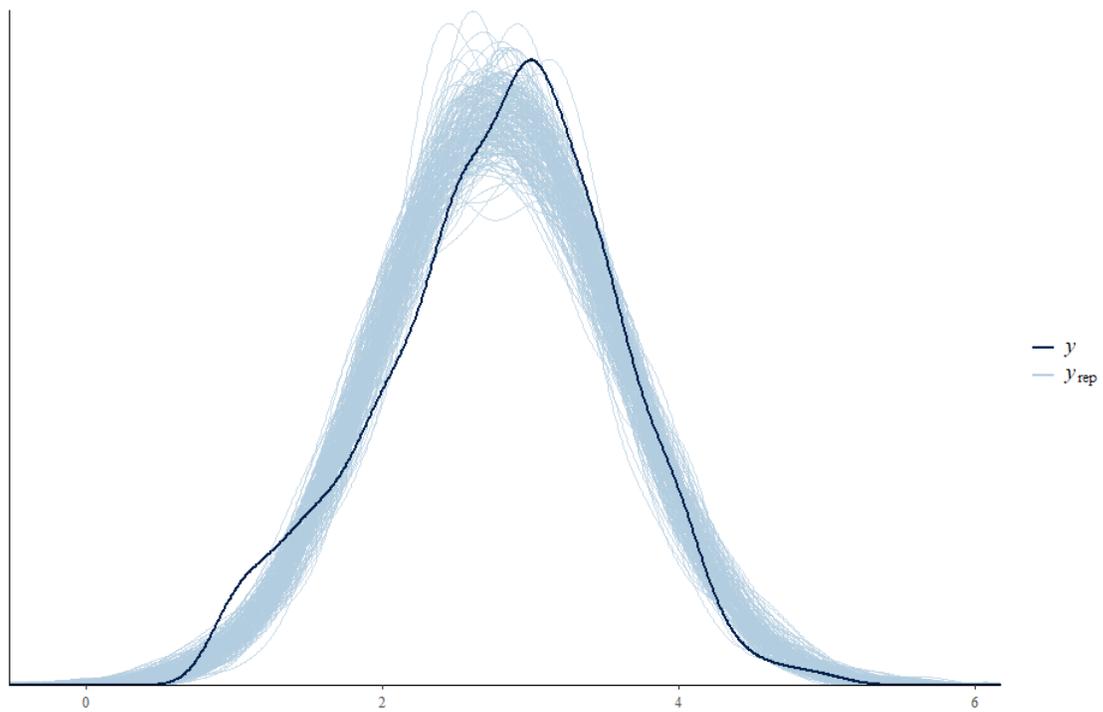

Figure S5.7: Marginal predictive distribution for model 5.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_waic   -866.1 18.5
p_waic         5.7  0.3
waic        1732.2 37.0
```

Model 6

Equation:

$$Familiarity \sim Christianity + Islam + Buddhism$$

Where

- *Familiarity* is the respondent's self-perceived familiarity with AI (continuous variable);
- *Christianity* is whether the respondent's religion is Christianity (binary variable);
- *Islam* is whether the respondent's religion is Islam (binary variable);
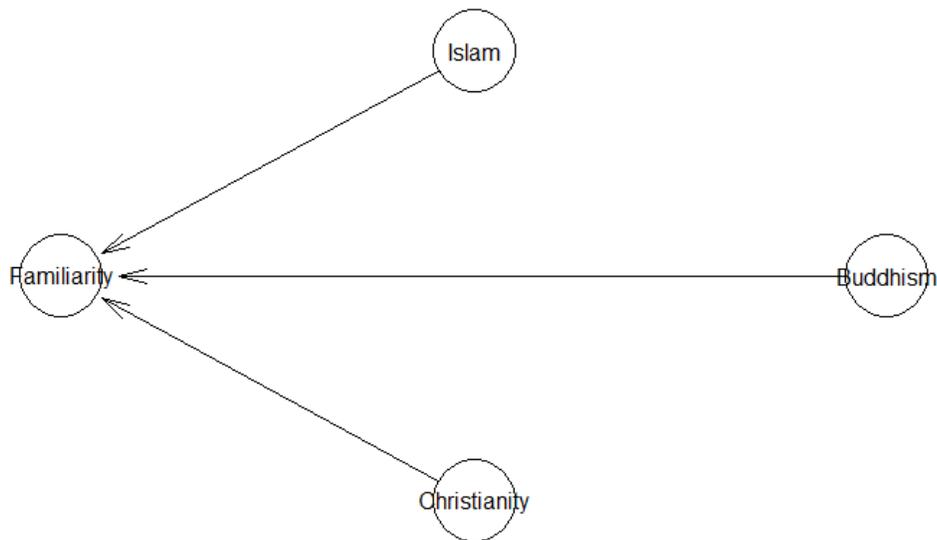- *Buddhism* is whether the respondent's religion is Buddhism (binary variable);

Figure S6.0: Visualization of model 6.

Table S6.1: Posterior estimate of model 6

	Mean	SD	n_eff	Rhat
a_Familiarity	2.83	0.04	9795	1
b_Christianity_Familiarity	0.04	0.08	11355	1
b_Buddhism_Familiarity	-0.07	0.07	10991	1
b_Islam_Familiarity	0.17	0.09	10863	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics
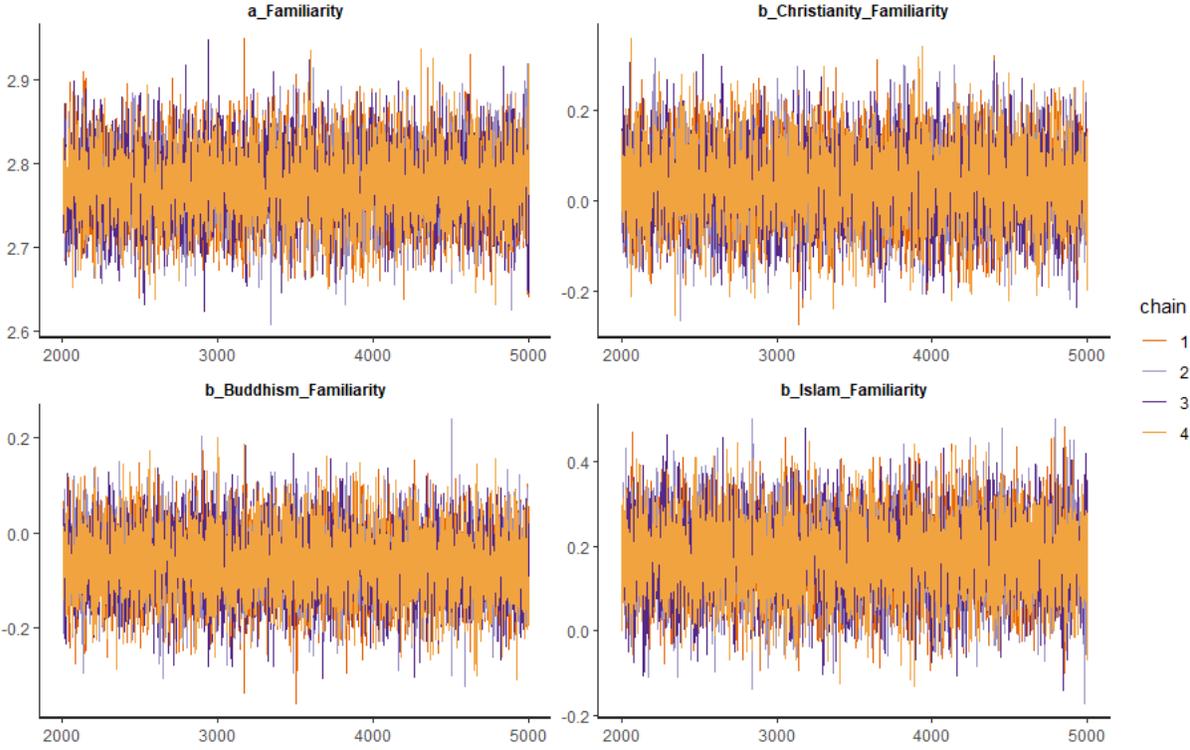
Trace plot diagnostic

Figure S6.1: Trace plot diagnostic for model 6.
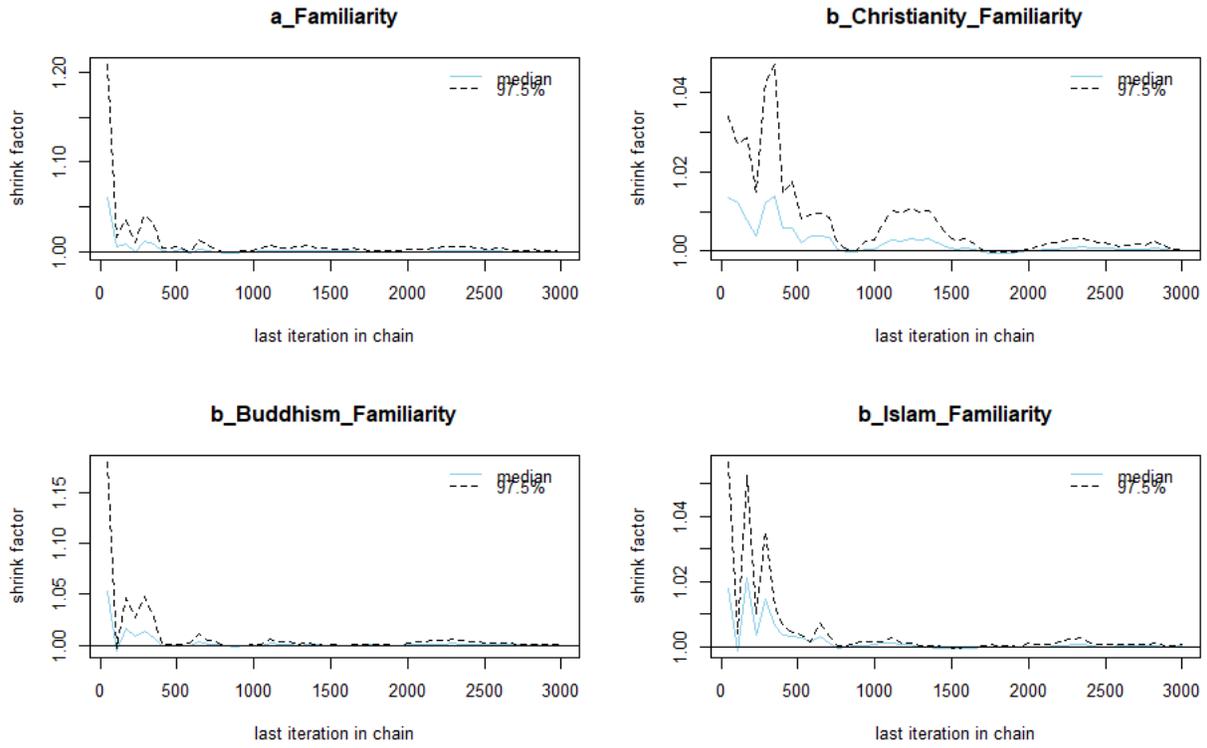
Gelman diagnostic

Figure S6.2: Gelman diagnostic for model 6.
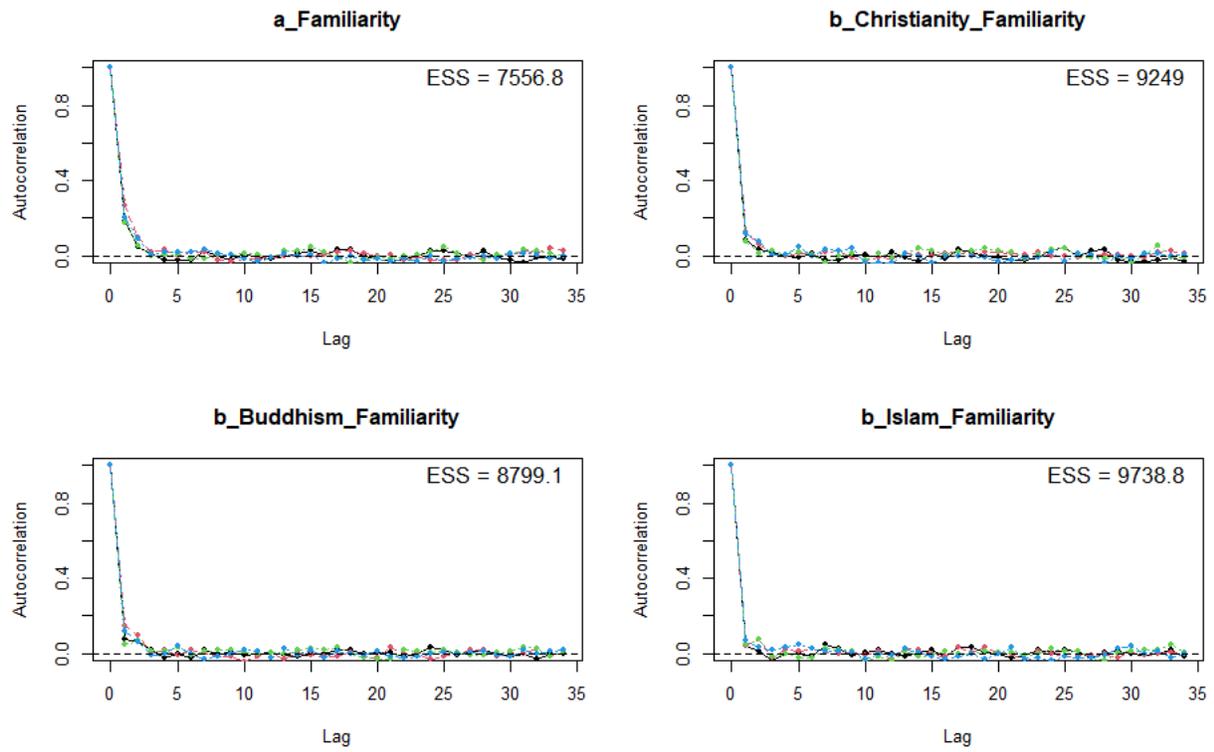
ACF diagnostic

Figure S6.3: ACF diagnostic for model 6.

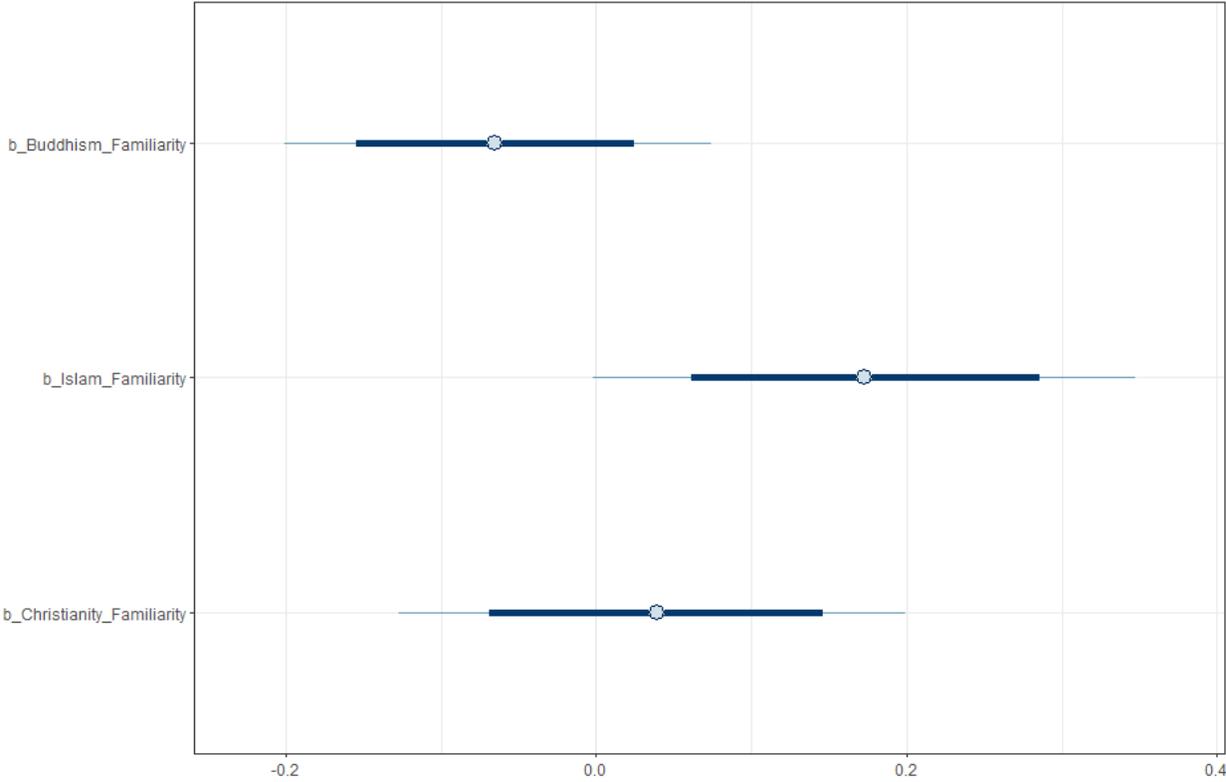## Posterior results

Interval distribution

Figure S6.4: Model 6's posterior interval distribution for all explanatory variables.
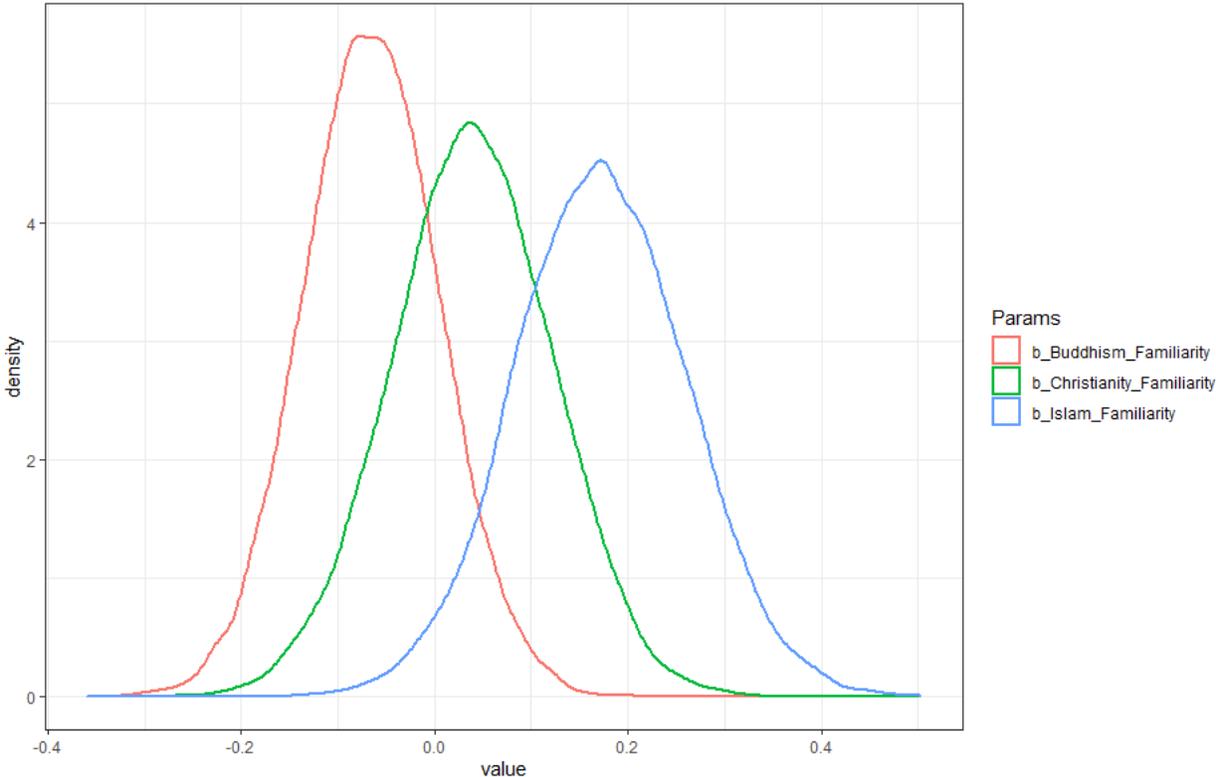
Density distribution

Figure S6.5: Model 6's posterior density distribution for all explanatory variables.
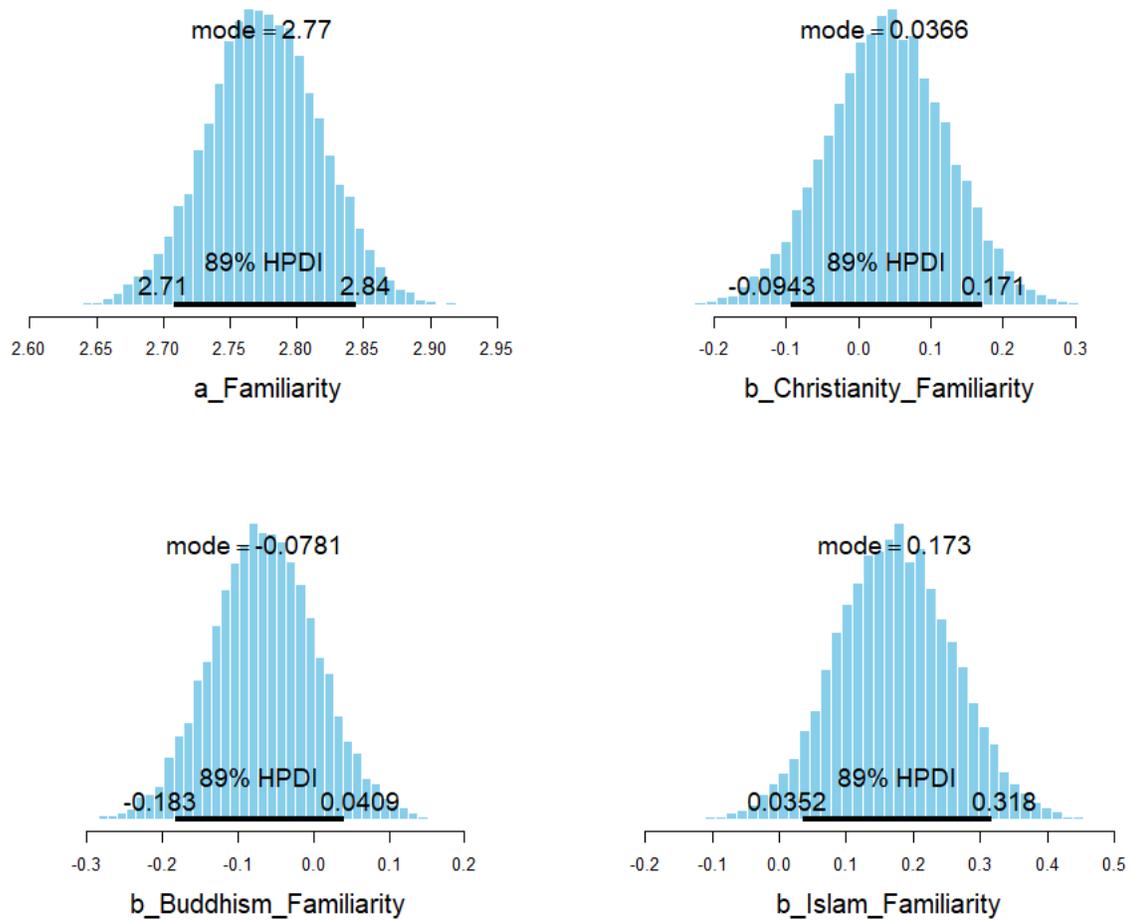
Density distribution with HPDI

Figure S6.6: Model 6's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_loo    -874.9 18.1
p_loo          4.6  0.3
looic       1749.8 36.2
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
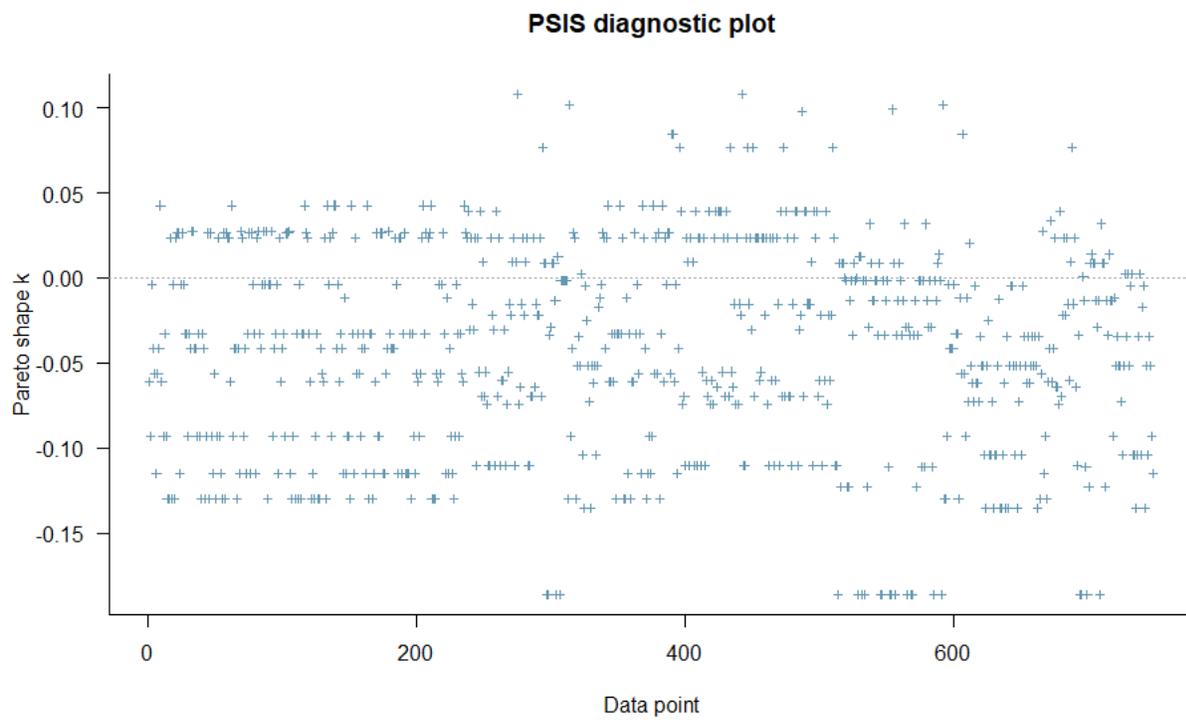
Figure S6.7: PSIS diagnostic plot for model 6.

Marginal predictive distribution
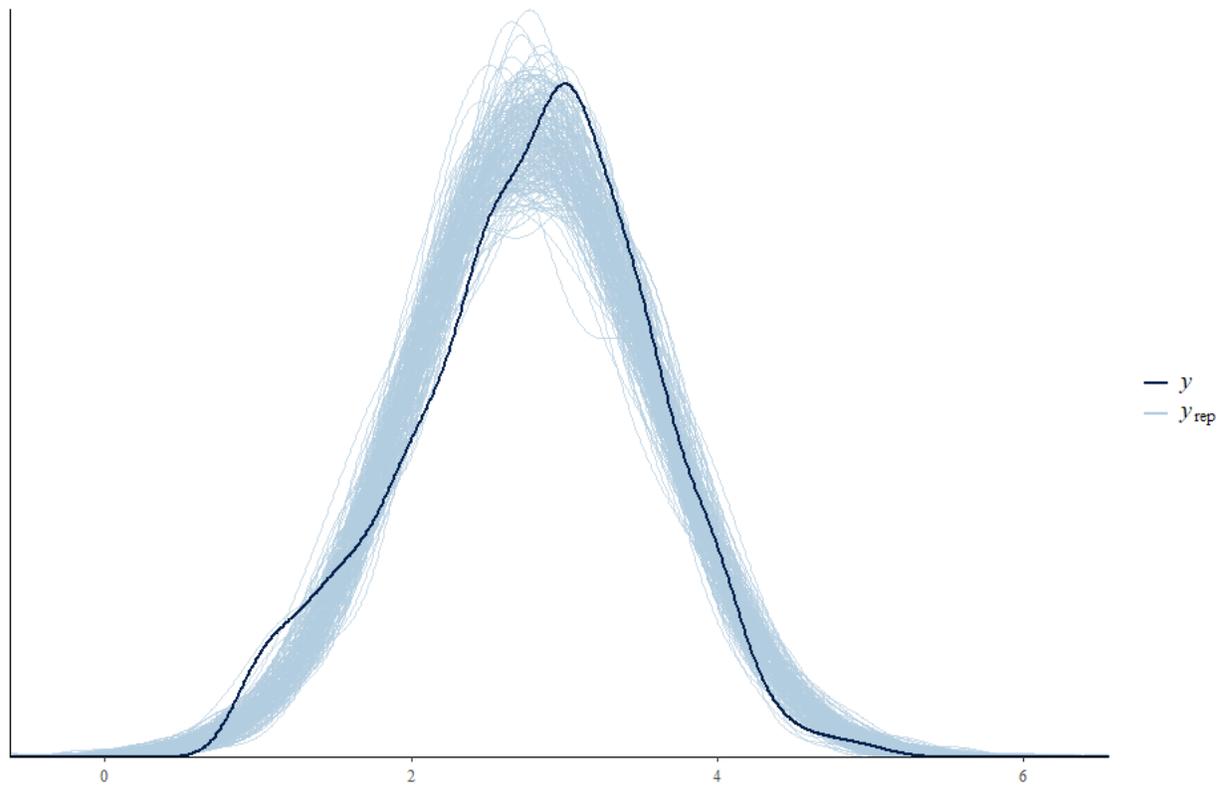

Figure S6.8: Marginal predictive distribution for model 6.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_waic  -874.9 18.1
p_waic        4.6  0.3
waic       1749.8 36.2
```

Model 7

Equation:

$$Familiarity \sim Christianity + Islam + Buddhism + Christianity\_Religiosity$$
$$+ Islam\_Religiosity + Buddhism\_Religiosity$$

Where

- *Familiarity* is the respondent's familiarity with AI (continuous variable);
- *Christianity* is whether the respondent's religion is Christianity (binary variable);
- *Islam* is whether the respondent's religion is Islam (binary variable);
- *Buddhism* is whether the respondent's religion is Buddhism (binary variable);
- *Religiosity* is the level of respondent's religiosity (ordinal/continuous variable);
- *Buddhism_Religiosity* is interaction between *Buddhism* and *Religiosity* so that *Buddhism_Religiosity* = *Buddhism* * *Religiosity* (continuous variable);
- *Christianity_Religiosity* is interaction between *Christianity* and *Religiosity* so that *Christianity_Religiosity* = *Christianity* * *Religiosity* (continuous variable);
- *Islam_Religiosity* is interaction between *Islam* and *Religiosity* so that *Islam_Religiosity* = *Islam* * *Religiosity* (continuous variable).

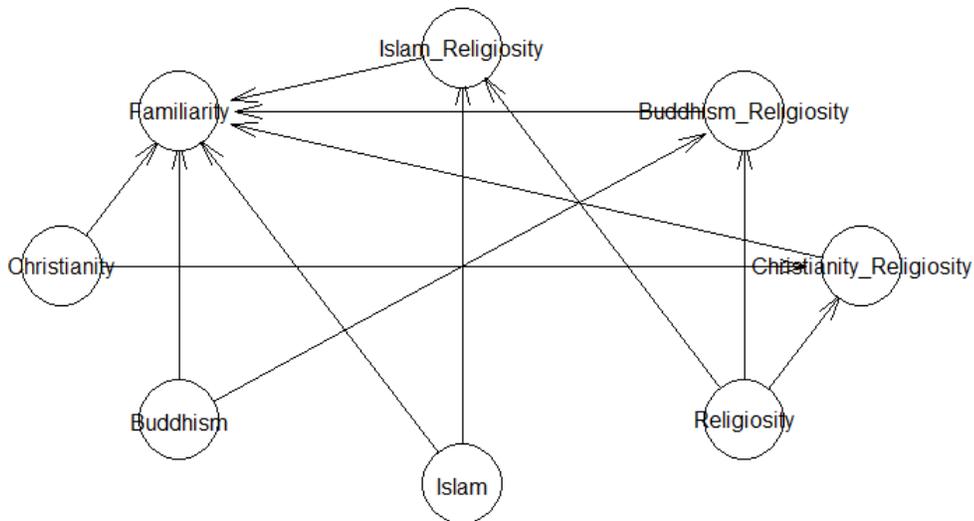**Figure S7.0.** Visualization of model 7.

Table 1: Posterior estimate of model 7

	Mean	SD	n_eff	Rhat
a_Familiarity	2.78	0.07	9448	1
b_Christianity_ Familiarity	0.03	0.21	9428	1
b_Christianity_Religiosity_Familiarity	-0.03	0.33	10145	1
b_Buddhism_Attitude	-0.06	0.17	10637	1
b_Buddhism_Religiosity_Familiarity	-0.04	0.34	11888	1
b_Islam_Attitude	-0.08	0.19	8769	1
b_Islam_Religiosity_Familiarity	0.34	0.25	10316	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics
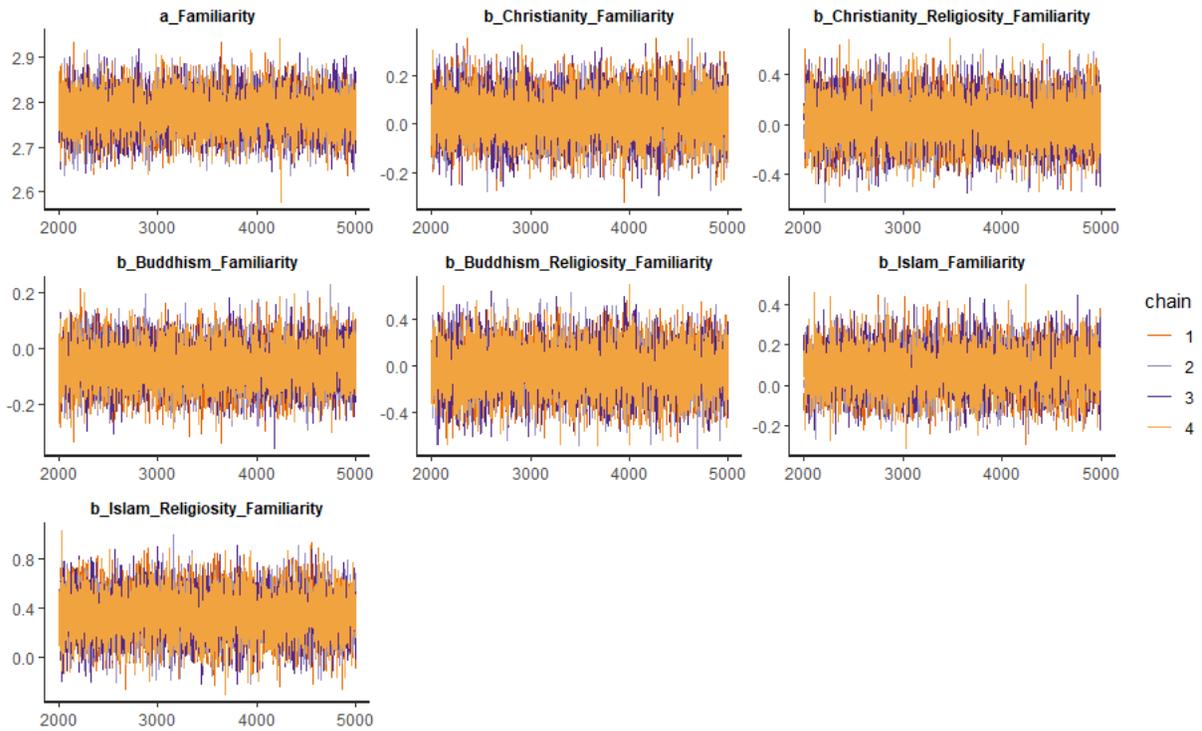
Trace plot diagnostic

Figure S7.1: Trace plot diagnostic for model 7.

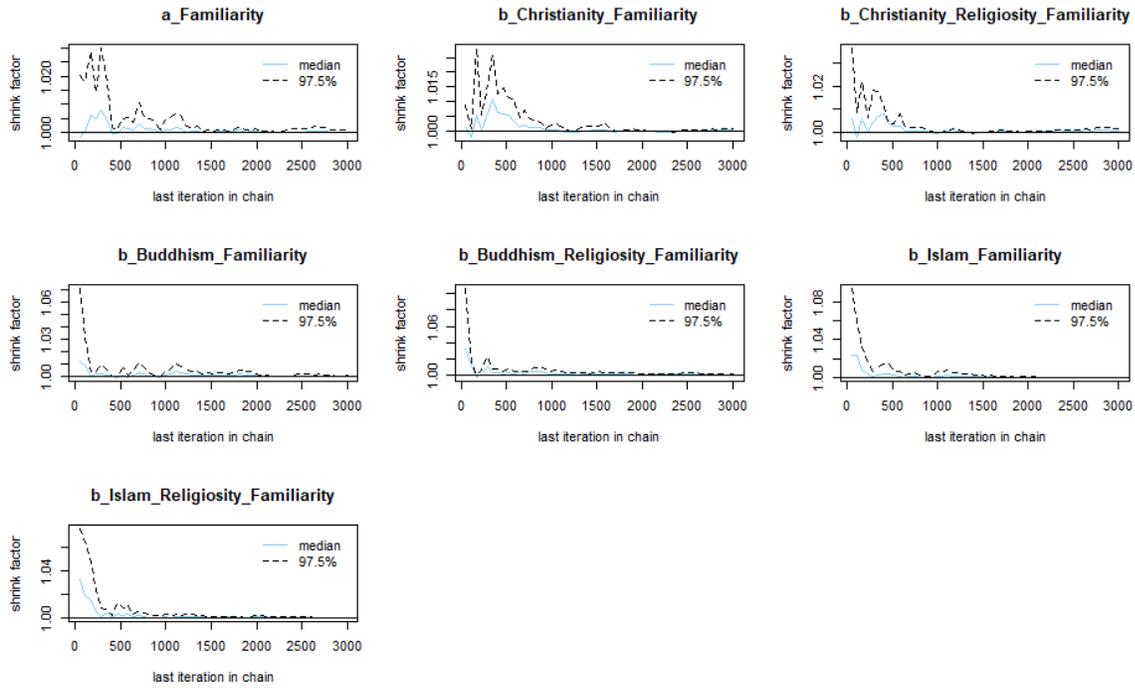## Gelman diagnostic

Figure S7.2: Gelman diagnostic for model 7.
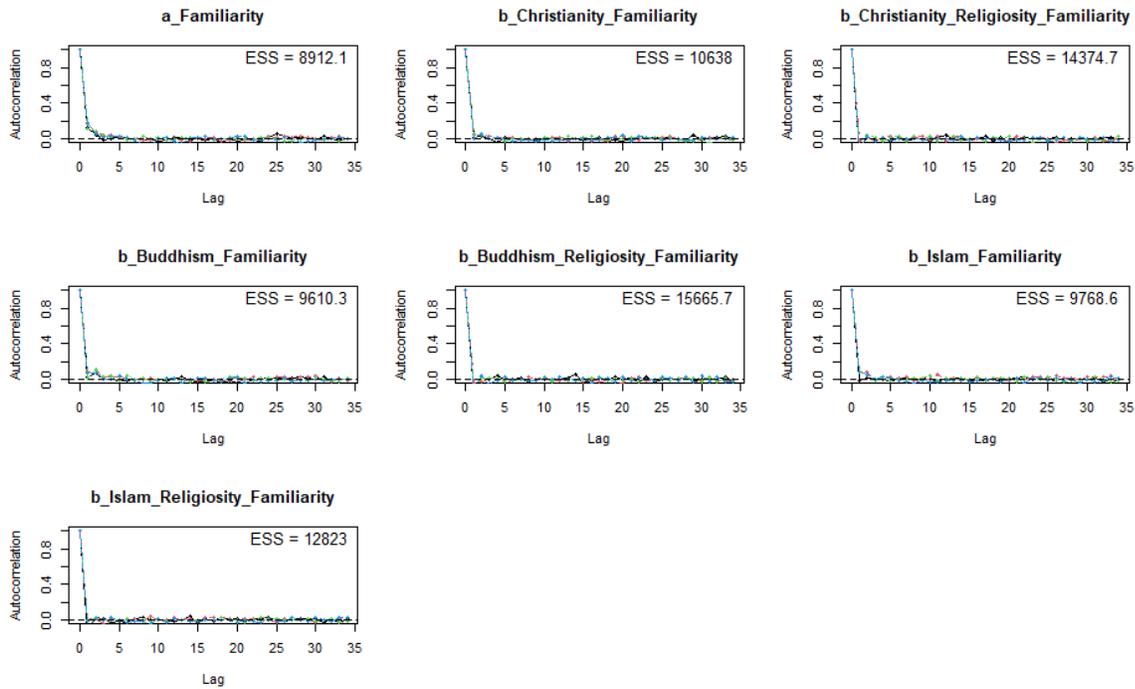
ACF diagnostic

Figure S7.3: ACF diagnostic for model 7.

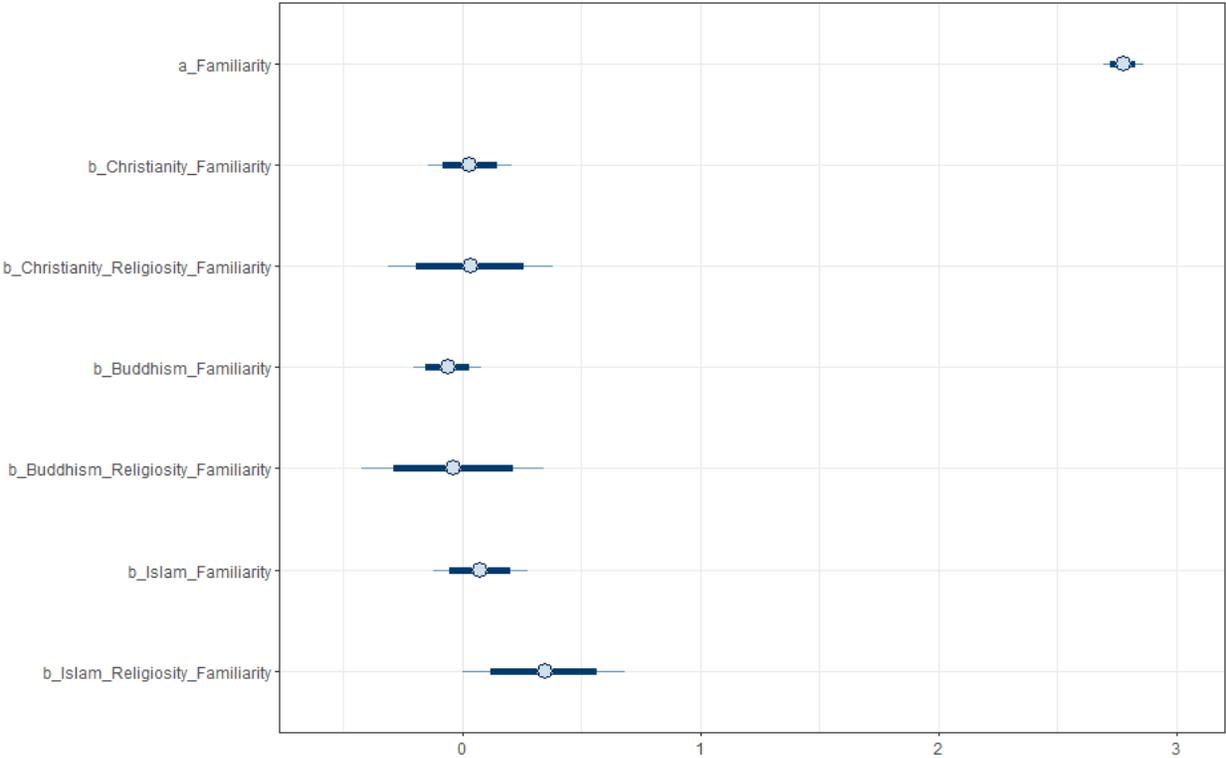## Posterior results

Interval distribution

Figure S7.4: Model 7's posterior interval distribution for all explanatory variables.
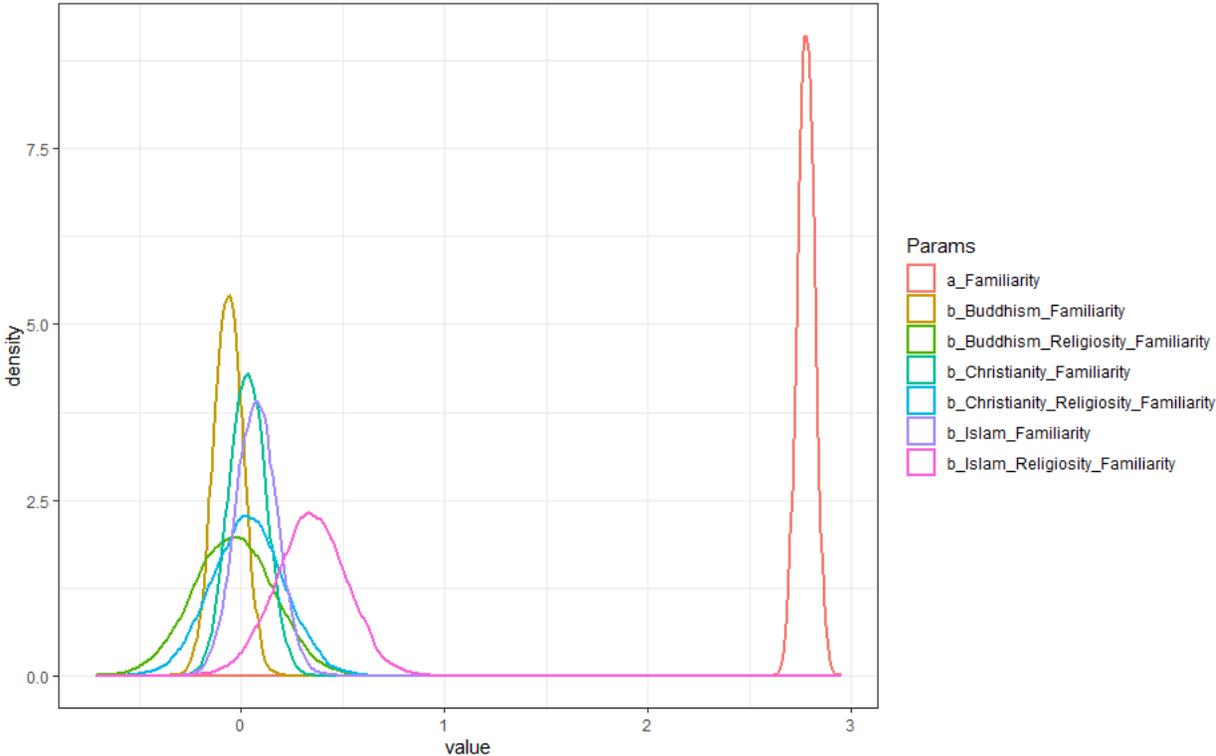
Density distribution

Figure S7.5: Model 4's density distribution for the all the explanatory variables.
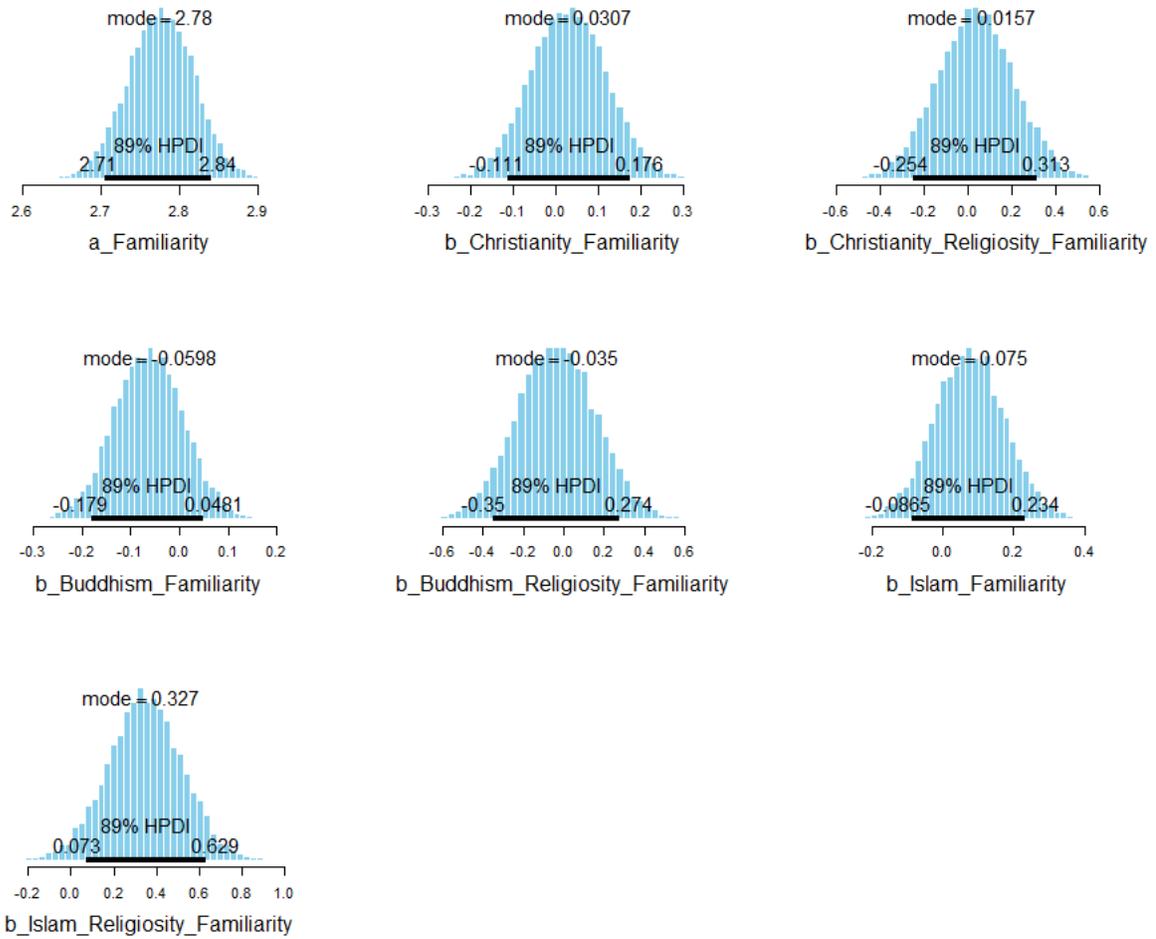
Density distribution with HPDI

Figure S7.6: Model 7's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_loo    -875.8 18.1
p_loo          7.2  0.5
looic       1751.6 36.3
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
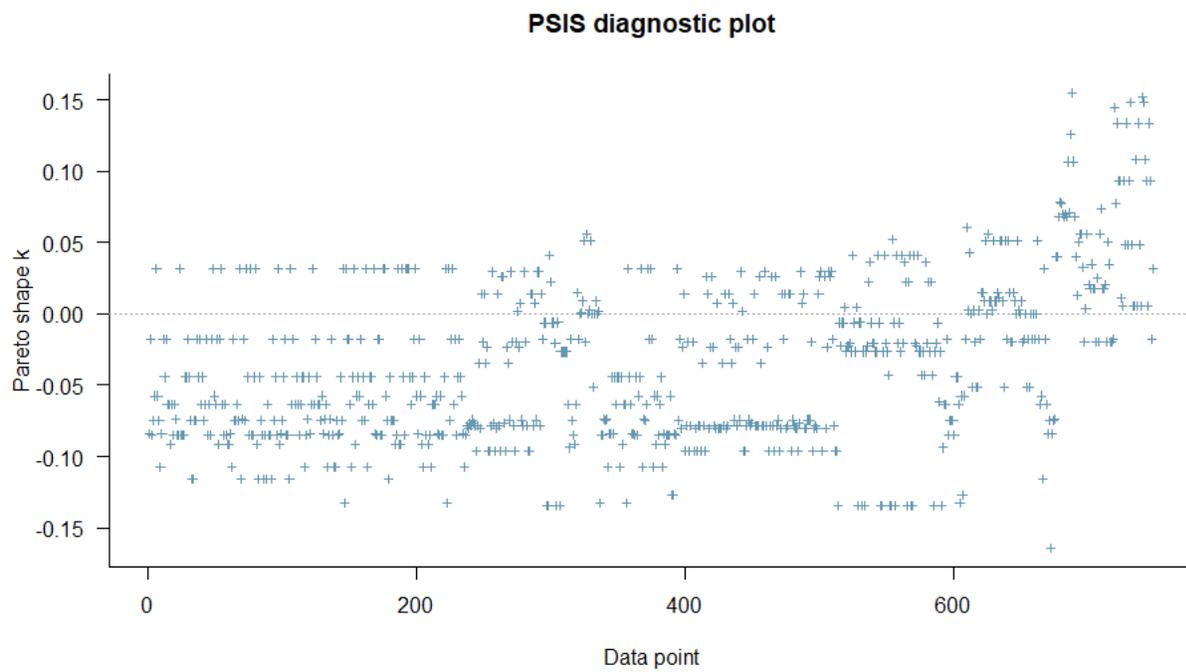
PSIS diagnostic plot

Figure S7.7: PSIS diagnostic plot for model 7.

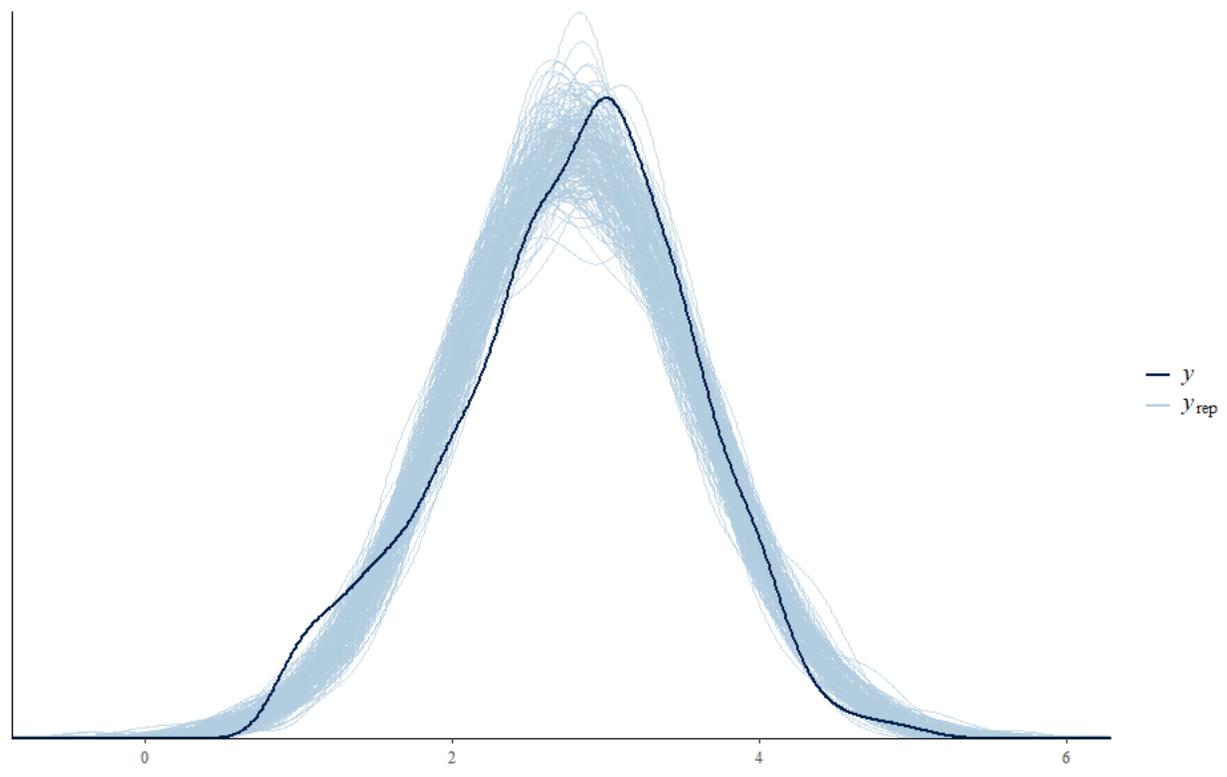Marginal predictive distribution

Figure S7.8: Marginal predictive distribution for model 7.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

           Estimate    SE
elpd_waic    -875.8  18.1
p_waic          7.2   0.5
waic         1751.5  36.3
```

Model 8

$$Familiarity \sim Income + SchoolYear + Sex + Major + Christianity + Islam + Buddhism$$
$$+ Christianity\_Religiosity + Islam\_Religiosity + Buddhism\_Religiosity$$

Where

- *Familiarity* is respondent's familiarity with AI (continuous variable);
- *Christianity* is whether the respondent's religion is Christianity (binary variable);
- *Islam* is whether the respondent's religion is Islam (binary variable);
- *Buddhism* is whether the respondent's religion is Buddhism (binary variable);
- *Religiosity* is the level of respondent's religiosity (ordinal/continuous variable);
- *Buddhism_Religiosity* is interaction between *Buddhism* and *Religiosity* so that *Buddhism_Religiosity* = *Buddhism* ∗ *Religiosity* (continuous variable);
- *Christianity_Religiosity* is interaction between *Christianity* and *Religiosity* so that *Christianity_Religiosity* = *Christianity* ∗ *Religiosity* (continuous variable);
- *Islam_Religiosity* is interaction between *Islam* and *Religiosity* so that *Islam_Religiosity* = *Islam* ∗ *Religiosity* (continuous variable).
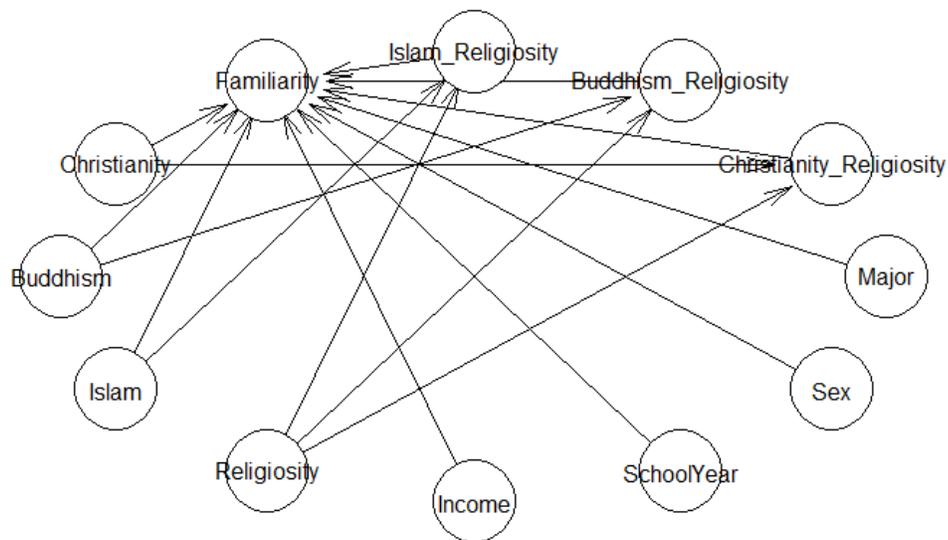

Figure S8.0: Visualization of model 8.

Table S8.1: Posterior estimate of model 8

	Mean	SD	n_eff	Rhat
a_ Familiarity	1.95	0.17	6542	1
b_Christianity_Familiarity	0.02	0.09	10522	1
b_Christianity_Religiosity_Familiarity	0.08	0.17	11234	1
b_Buddhism_Familiarity	-0.04	0.07	13526	1
b_Buddhism_Religiosity_Familiarity	-0.01	0.19	9820	1
b_Islam_Familiarity	-0.10	0.10	11532	1
b_Islam_Religiosity_Familiarity	0.27	0.10	8622	1
b_Income_Familiarity	0.04	0.17	10523	1
b_SchoolYear_Familiarity	0.02	0.03	10025	1
b_Sex_Familiarity	0.23	0.06	10995	1
b_Major_Familiarity	0.11	0.06	12687	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics
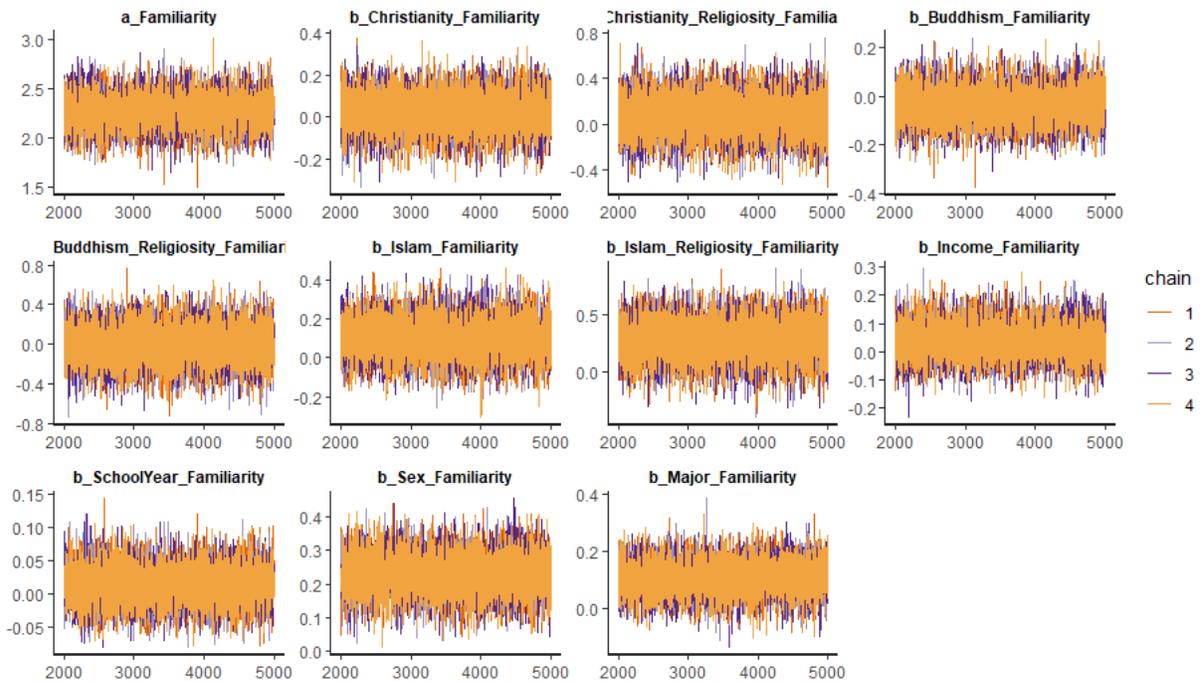
Trace plot diagnostic

Figure S8.1: Trace plot diagnostic for model 8.

Gelman diagnostic
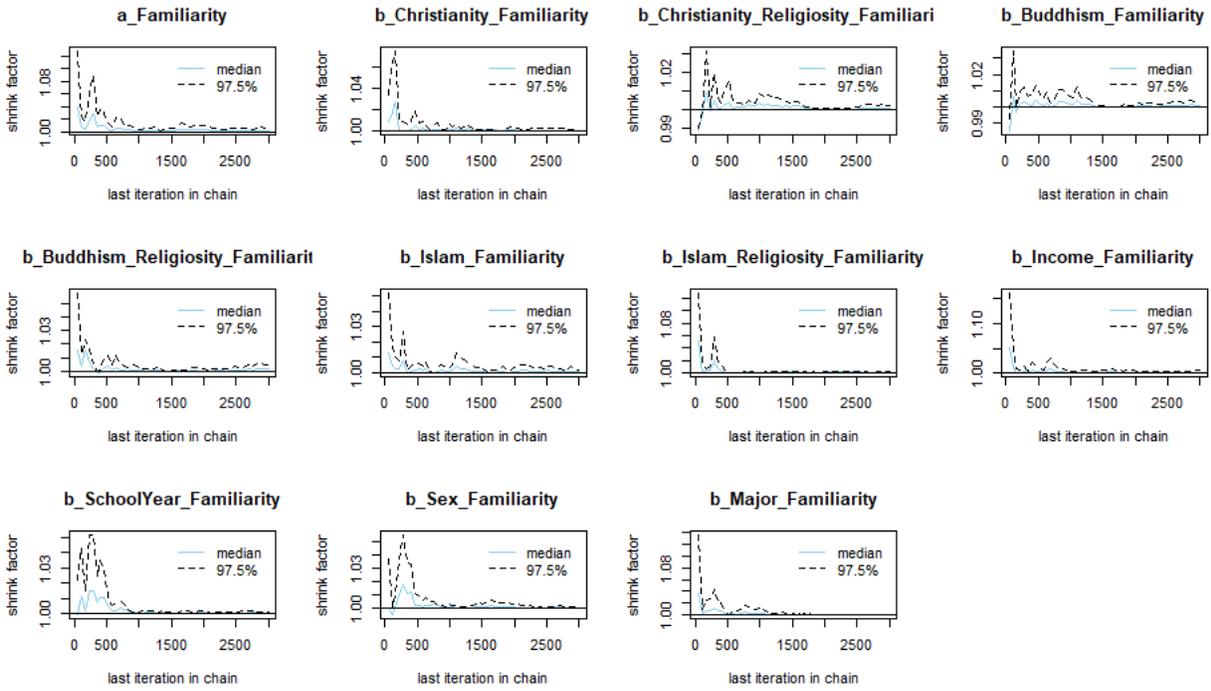
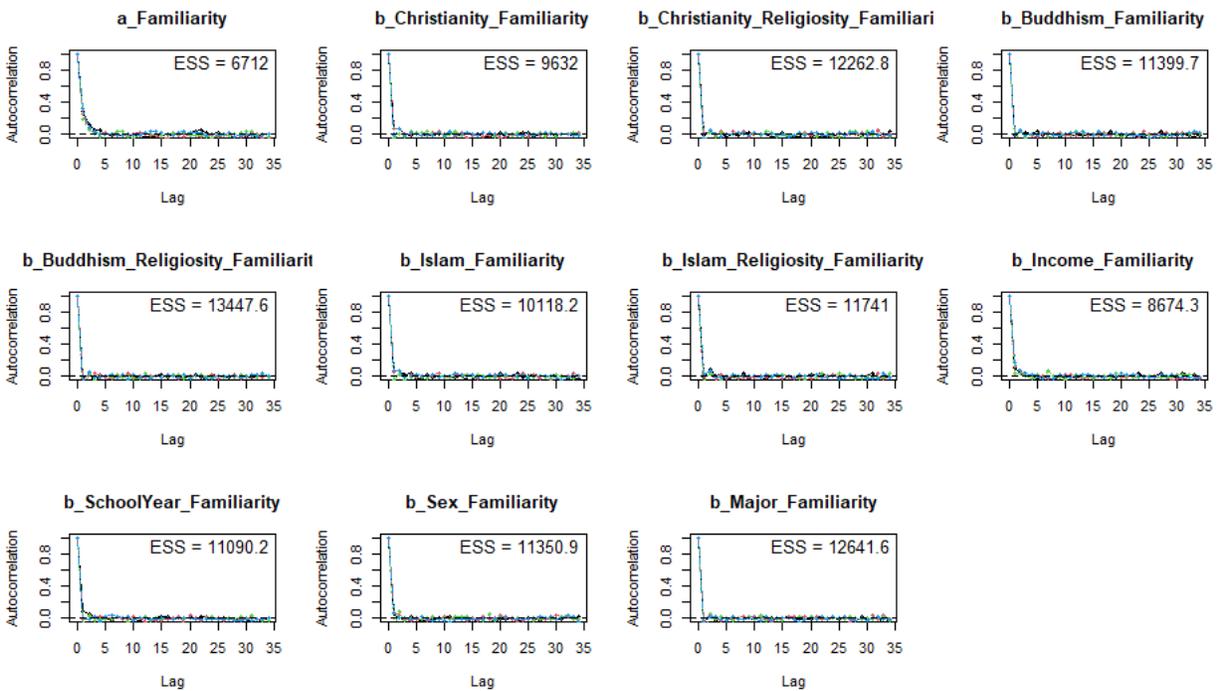**Figure S8.2:** Gelman diagnostic for model 8.

ACF diagnostic
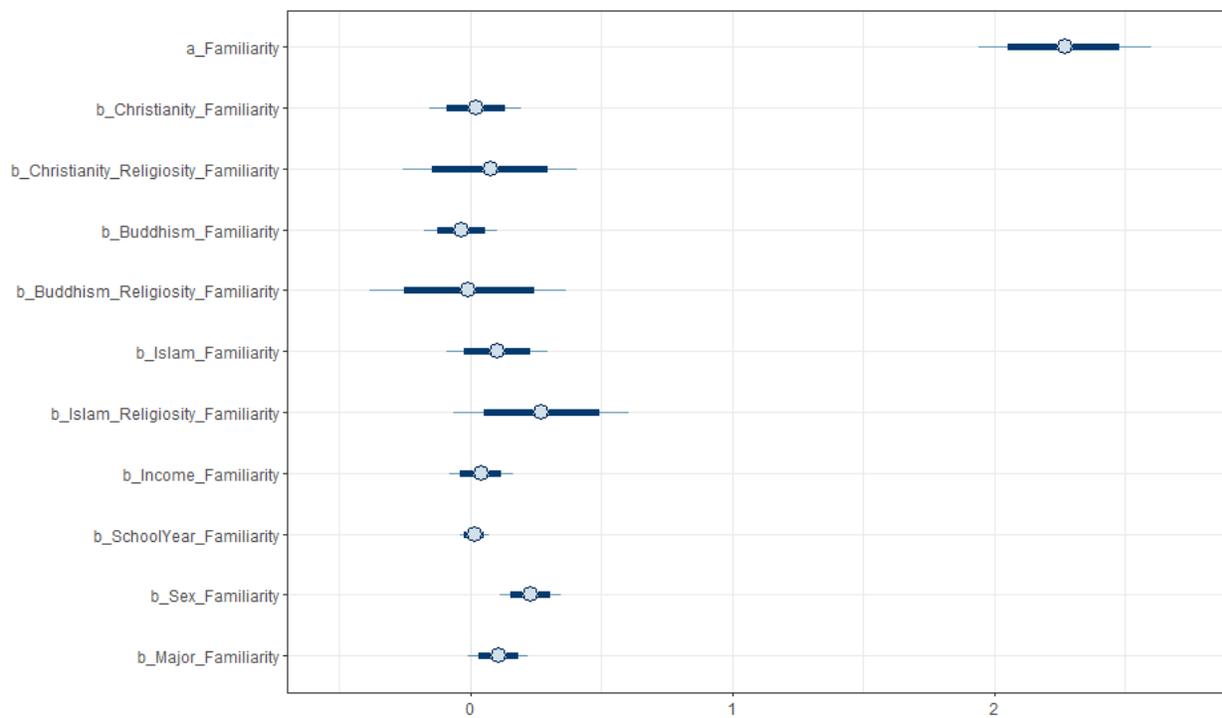

Figure S8.3: ACF diagnostic for model 8.

Figure S8.4: Model 8's density distribution for the all the explanatory variables.
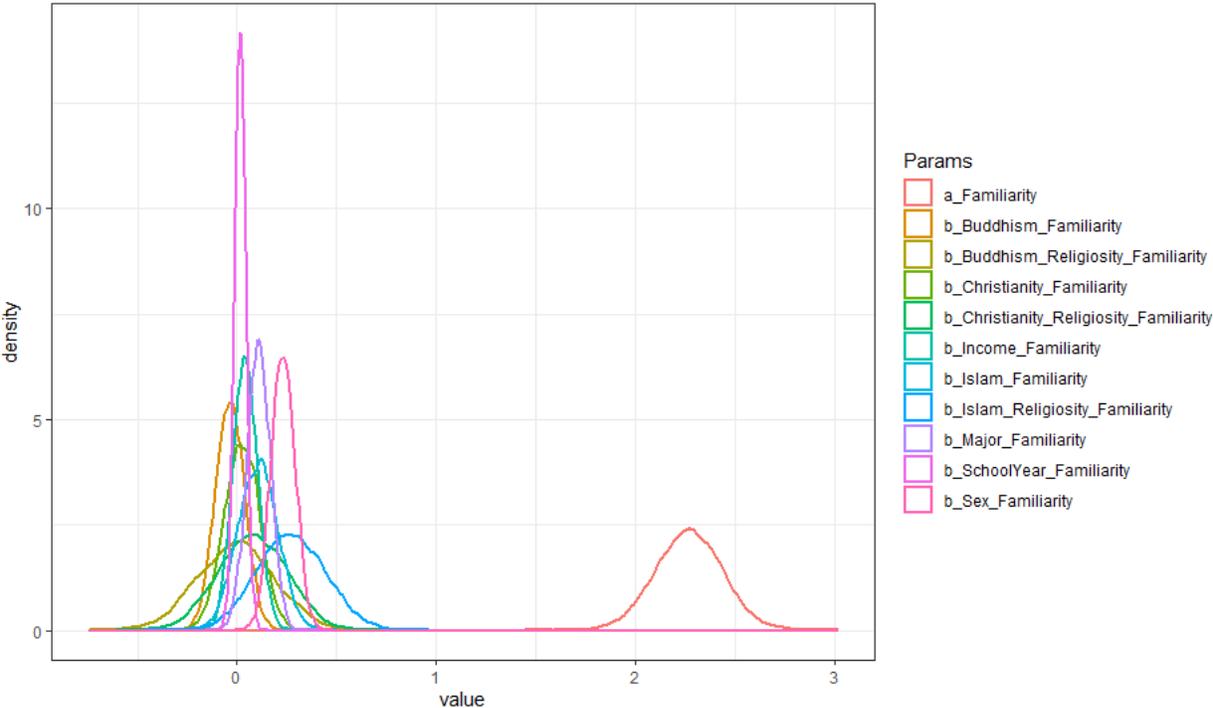
Density distribution

Figure S8.5: Model 8's posterior interval distribution for all explanatory variables.
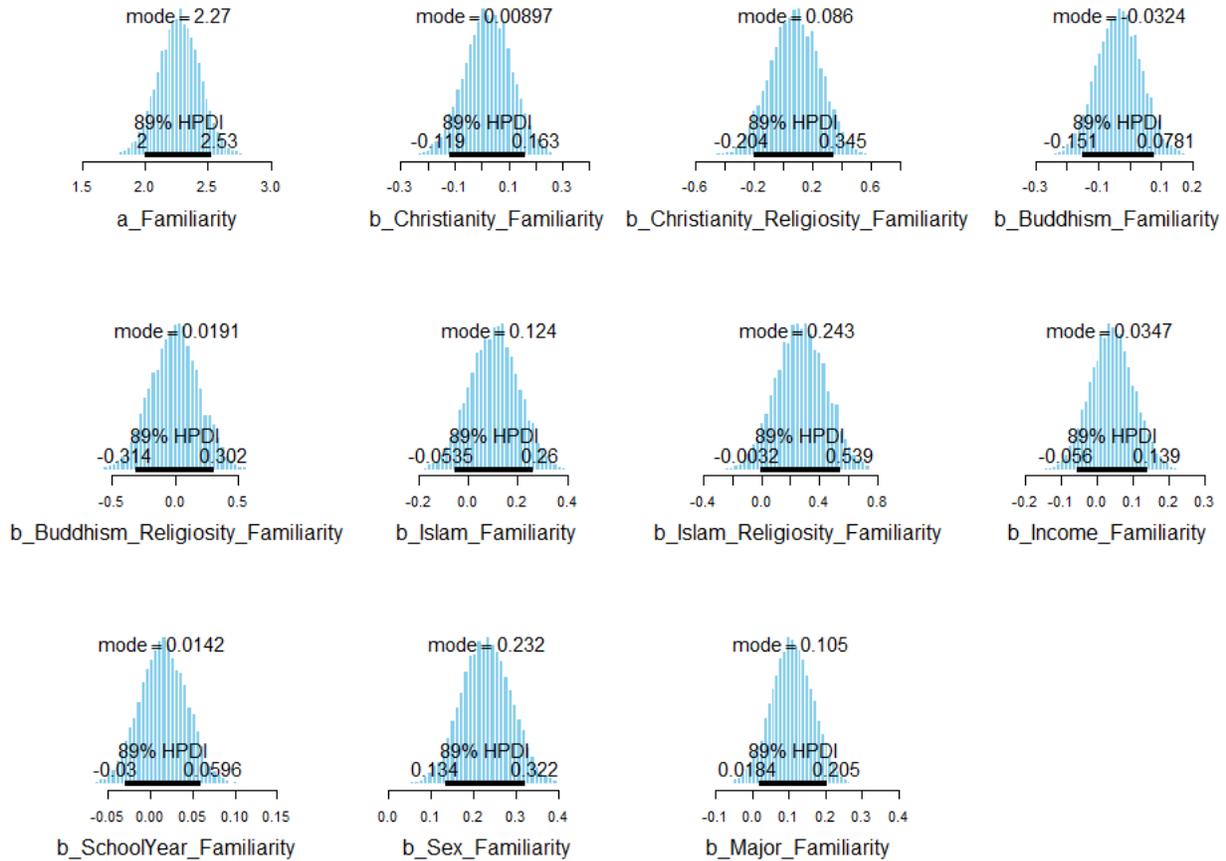
Density distribution with HPDI

Figure S8.6: Model 8's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_loo    -867.6 18.6
p_loo         10.9  0.7
looic       1735.3 37.1
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
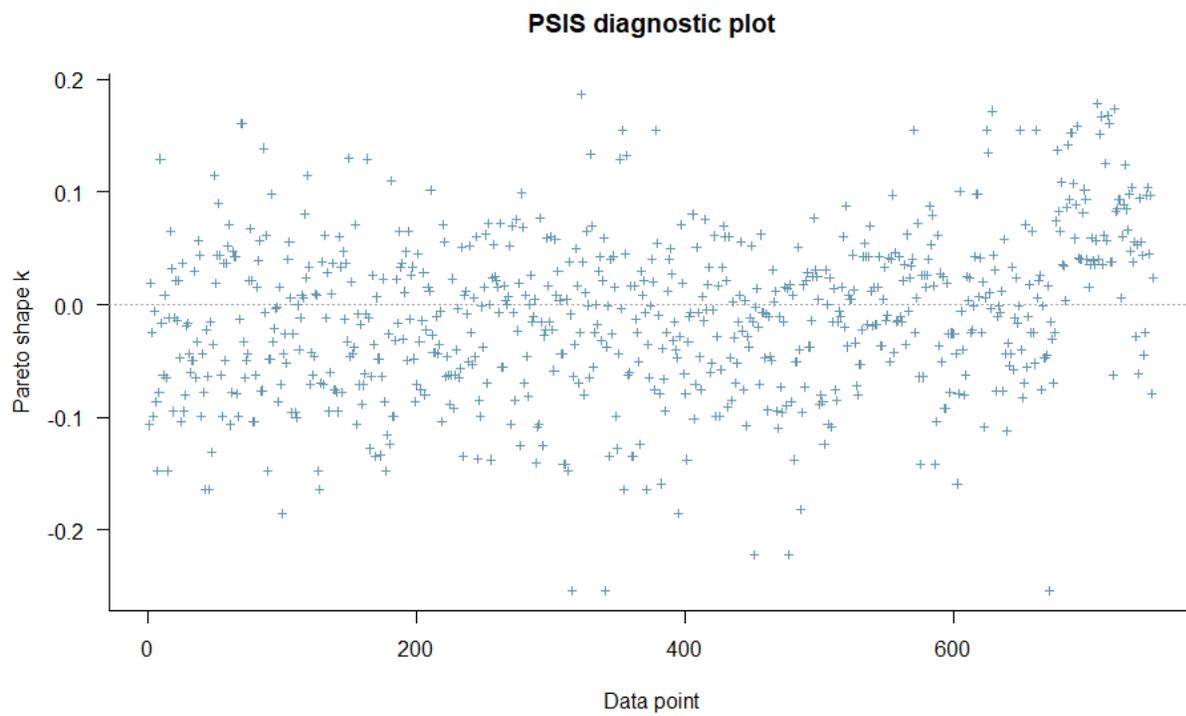
PSIS diagnostic plot

Figure S8.7: PSIS diagnostic plot for model 8.

Marginal predictive distribution
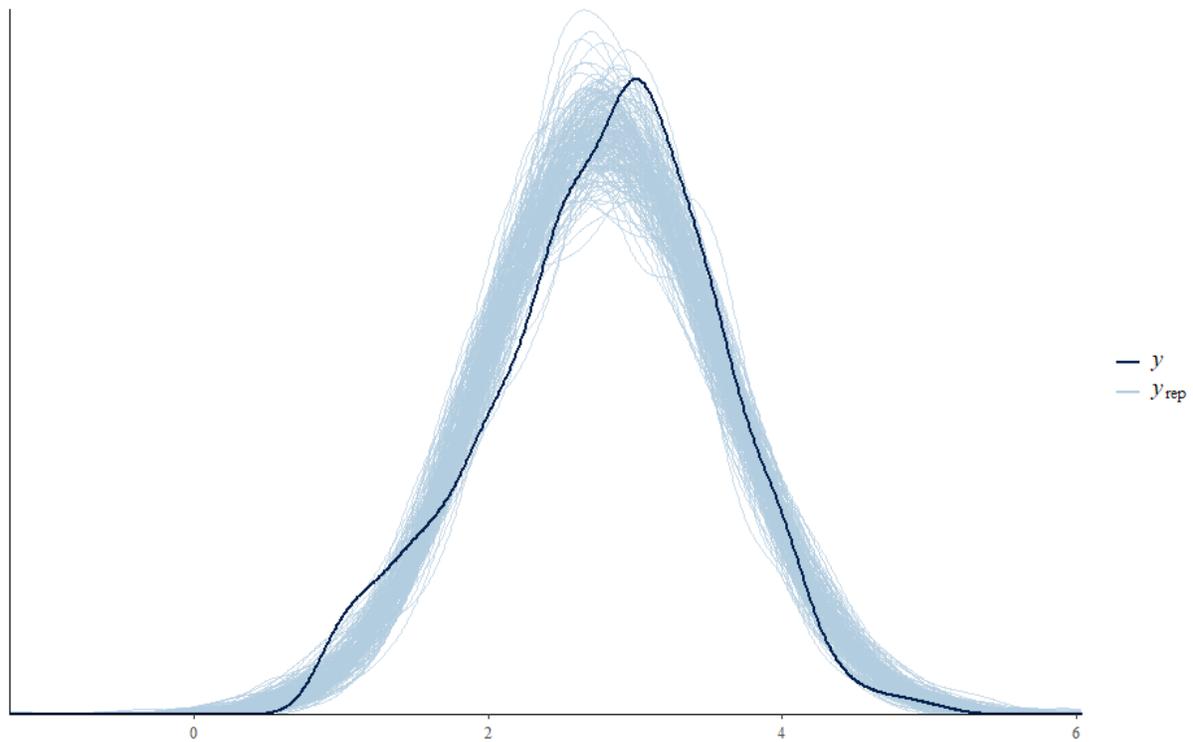
Figure S8.8: Marginal predictive distribution for model 8.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

            Estimate    SE
elpd_waic    -867.6  18.6
p_waic         10.9   0.7
waic         1735.3  37.1
```

Model 9

$$Attitude \sim Familiarity + Income + SchoolYear + Sex + Major + Christianity + Islam \\ + Buddhism + Christianity\_Religiosity + Islam\_Religiosity \\ + Buddhism\_Religiosity$$

Where

- $Attitude$ is attitude towards emotional AI (continuous variable);
- $Christianity$ is whether the respondent's religion is Christianity (binary variable);
- $Islam$ is whether the respondent's religion is Islam (binary variable);
- $Buddhism$ is whether the respondent's religion is Buddhism (binary variable);
- $Religiosity$ is the level of respondent's religiosity (ordinal/continuous variable);
- $Buddhism\_Religiosity$ is interaction between $Buddhism$ and $Religiosity$ so that $Buddhism\_Religiosity = Buddhism * Religiosity$ (continuous variable);
- $Christianity\_Religiosity$ is interaction between $Christianity$ and $Religiosity$ so that $Christianity\_Religiosity = Christianity * Religiosity$ (continuous variable);
- $Islam\_Religiosity$ is interaction between $Islam$ and $Religiosity$ so that $Islam\_Religiosity = Islam * Religiosity$ (continuous variable).

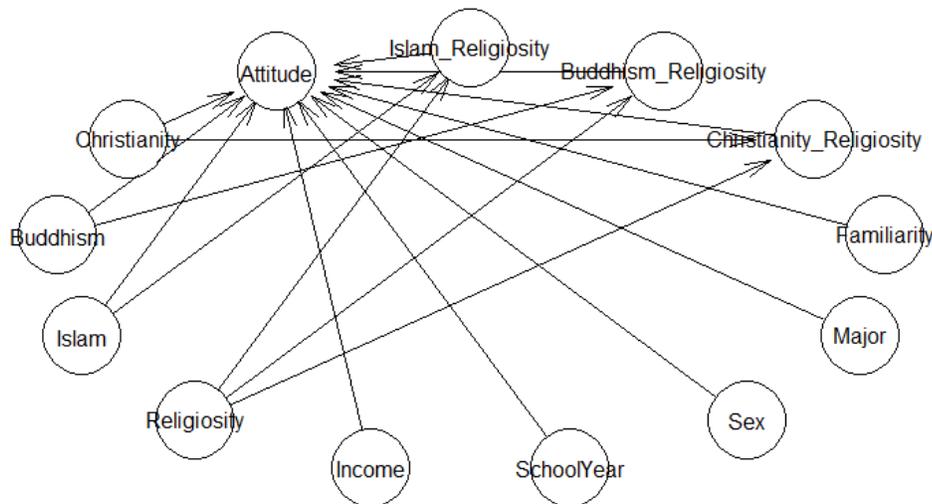**Figure S9.0:** Visualization of model 9.

Table S9.1: Posterior estimate of model 9

	Mean	**SD**	**n_eff**	**Rhat**
a_Attitude	1.69	0.19	6592	1
b_Christianity_Attitude	-0.15	0.09	10059	1
b_Christianity_Religiosity_Attitude	-0.05	0.17	11374	1
b_Buddhism_Attitude	-0.08	0.07	9220	1
b_Buddhism_Religiosity_Attitude	-0.25	0.19	12161	1
b_Islam_Attitude	-0.29	0.10	9025	1
b_Islam_Religiosity_Attitude	-0.18	0.17	10528	1
b_Income_Attitude	0.15	0.06	8215	1
b_SchoolYear_Attitude	0.05	0.03	11532	1
b_Sex_Attitude	0.11	0.06	10145	1
b_Major_Attitude	0.12	0.06	13052	1
b_Familiarity_Attitude	0.18	0.04	10546	1
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

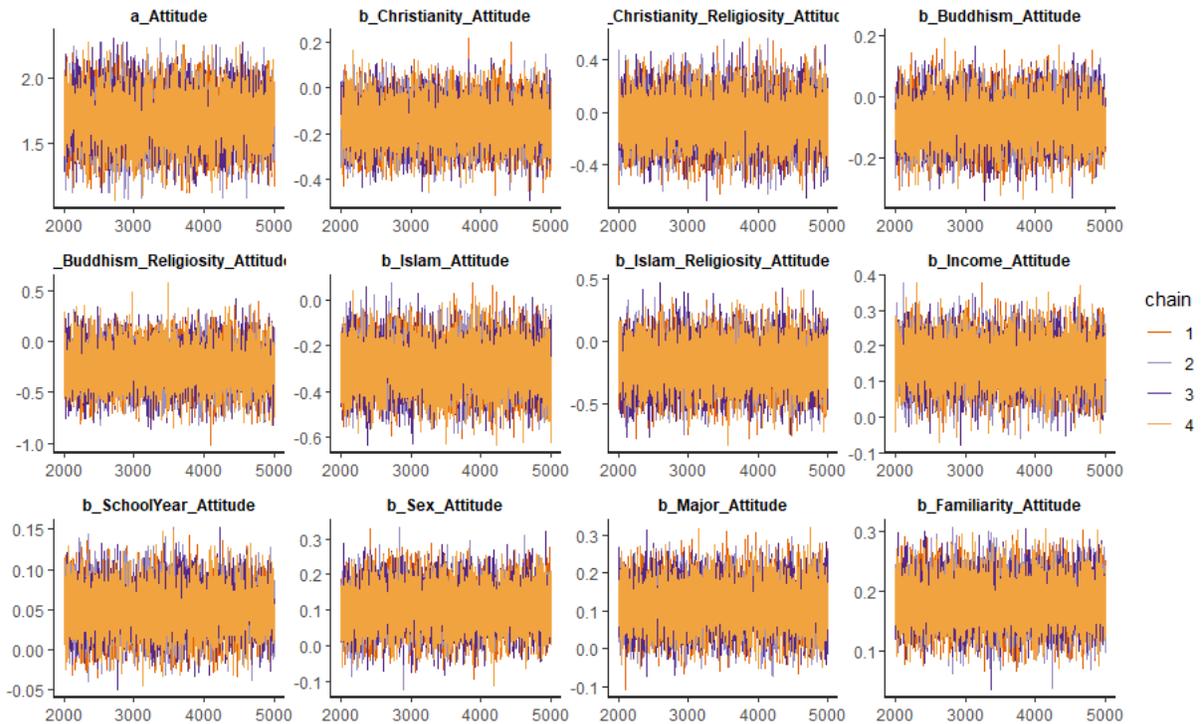## Posterior Diagnostics

Trace plot diagnostic

Figure S9.1: Trace plot diagnostic for model 9.
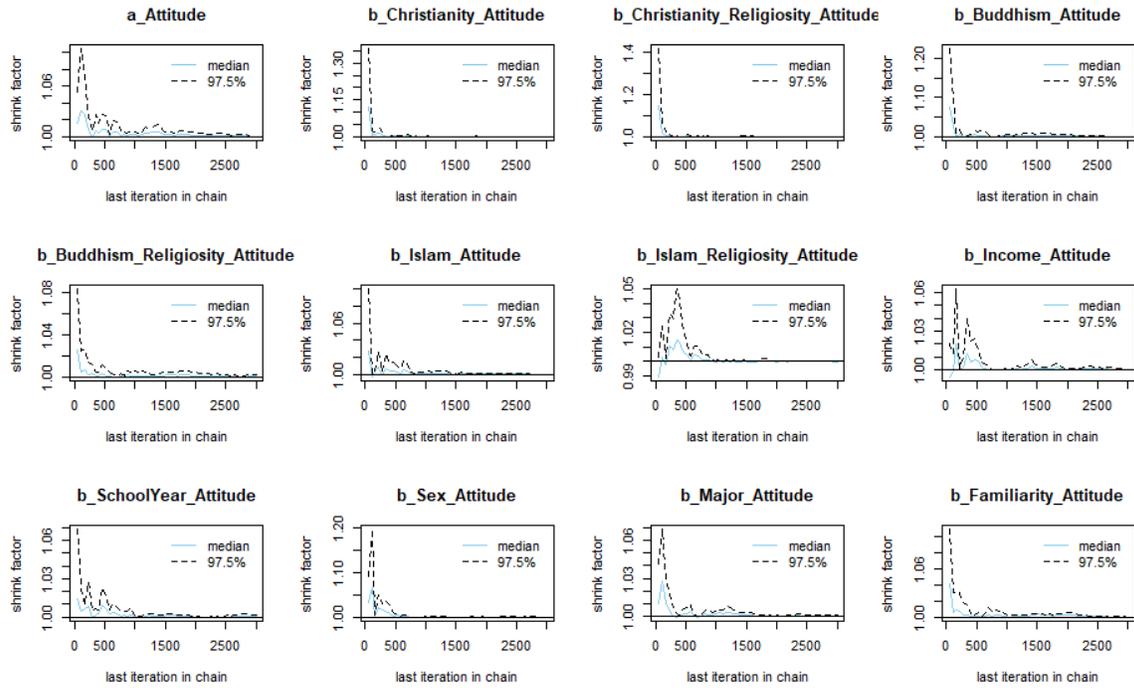
Gelman diagnostic

Figure S9.2: Gelman diagnostic for model 9.
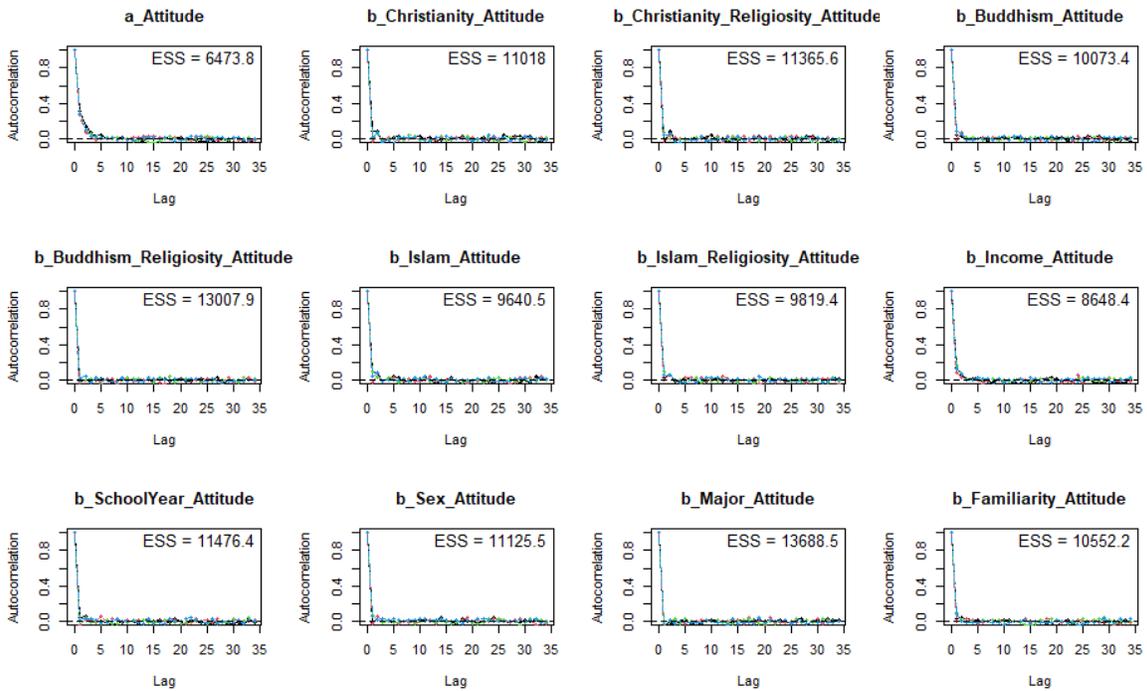
ACF diagnostic

Figure S9.3: ACF diagnostic for model 9.

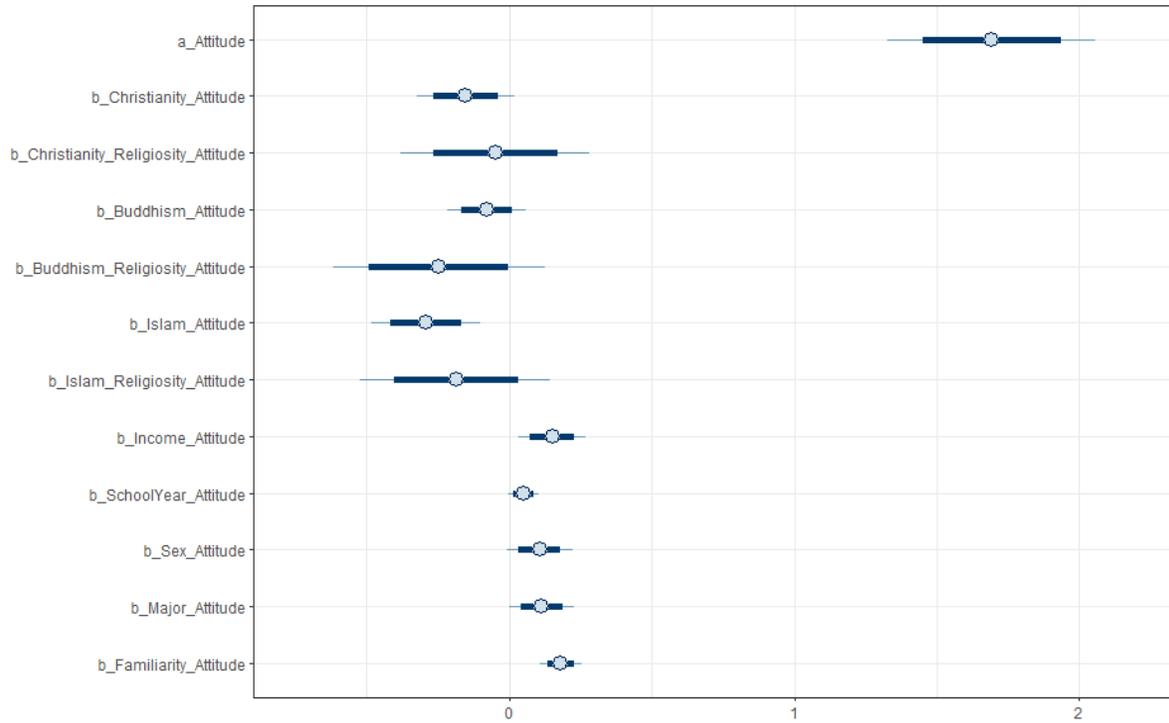## Posterior results

Interval distribution

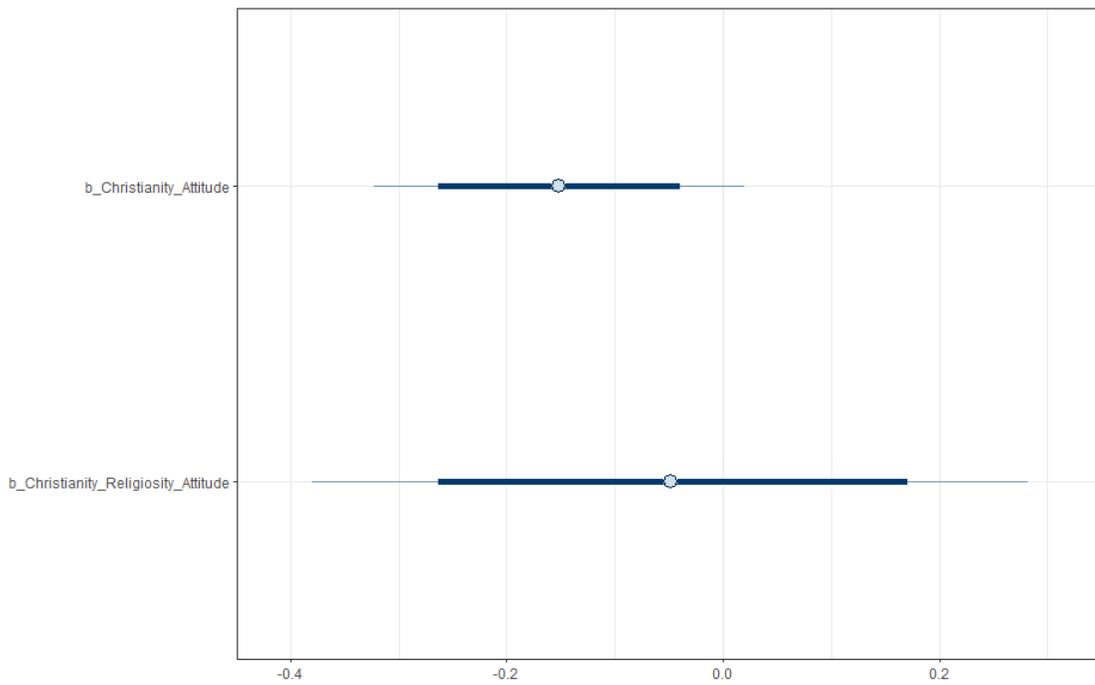**Figure S9.4:** Model 9's posterior interval distribution for all explanatory variables.

Figure S9.5: Model 9's posterior interval distribution for the interaction between the Buddhism and Religiosity variables.
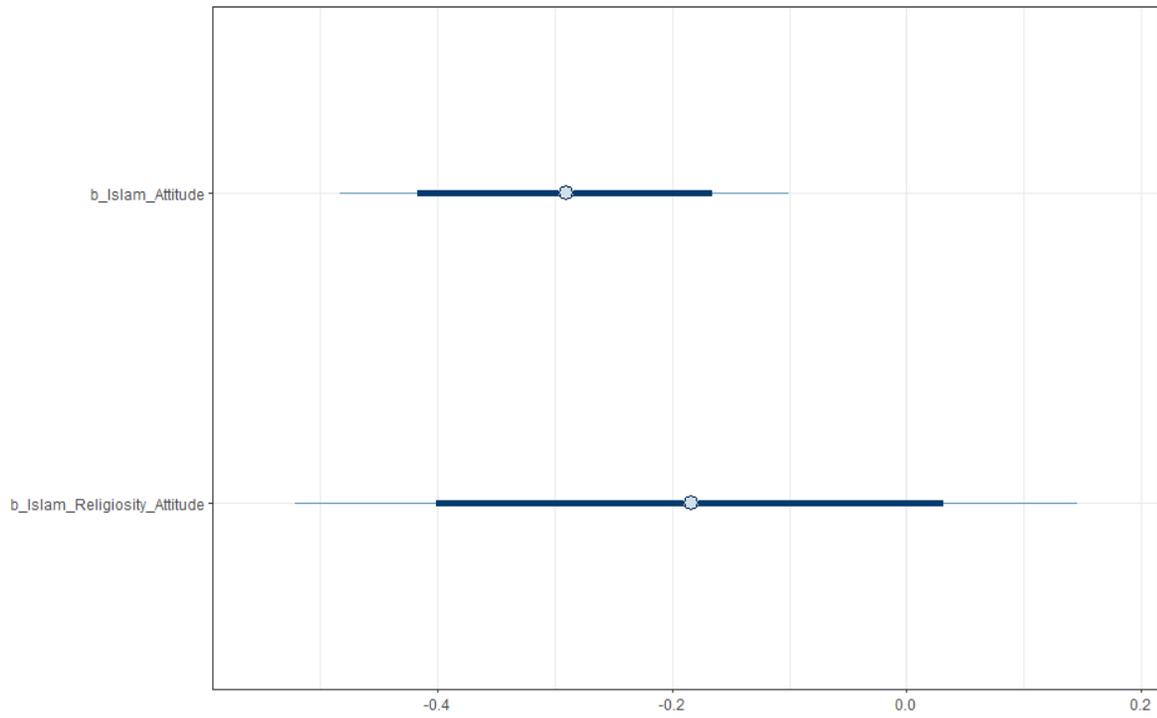
Figure S9.6: Model 9's posterior interval distribution for the interaction between the Islam and Religiosity variables.
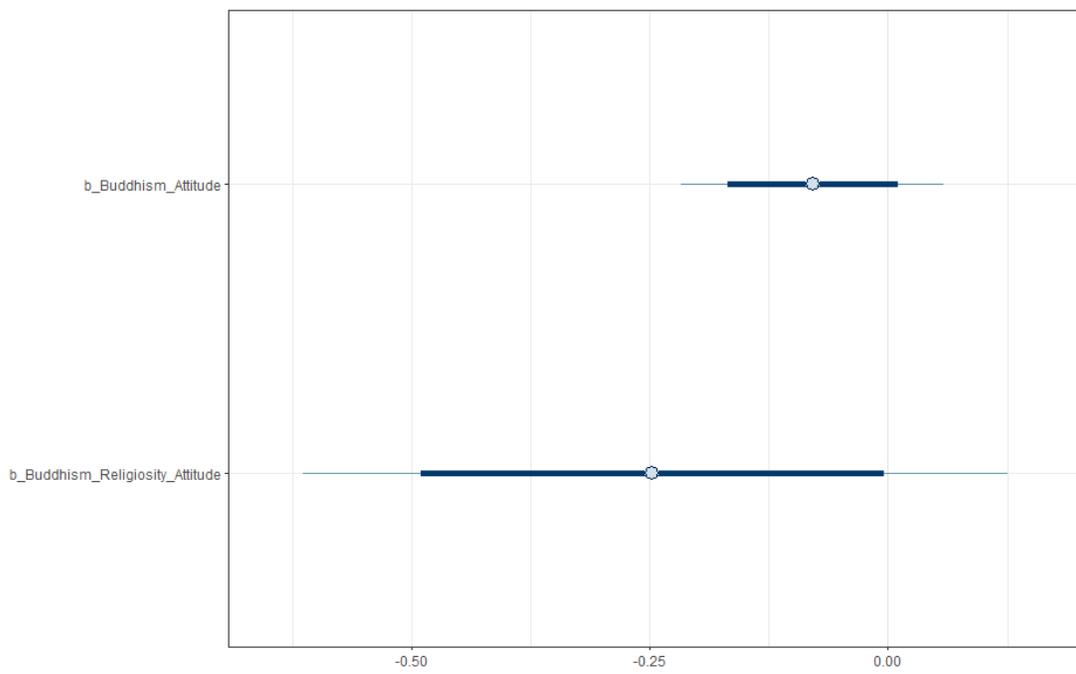

Figure S9.7: Model 9's posterior interval distribution for the interaction between the Buddhism and Religiosity variables.
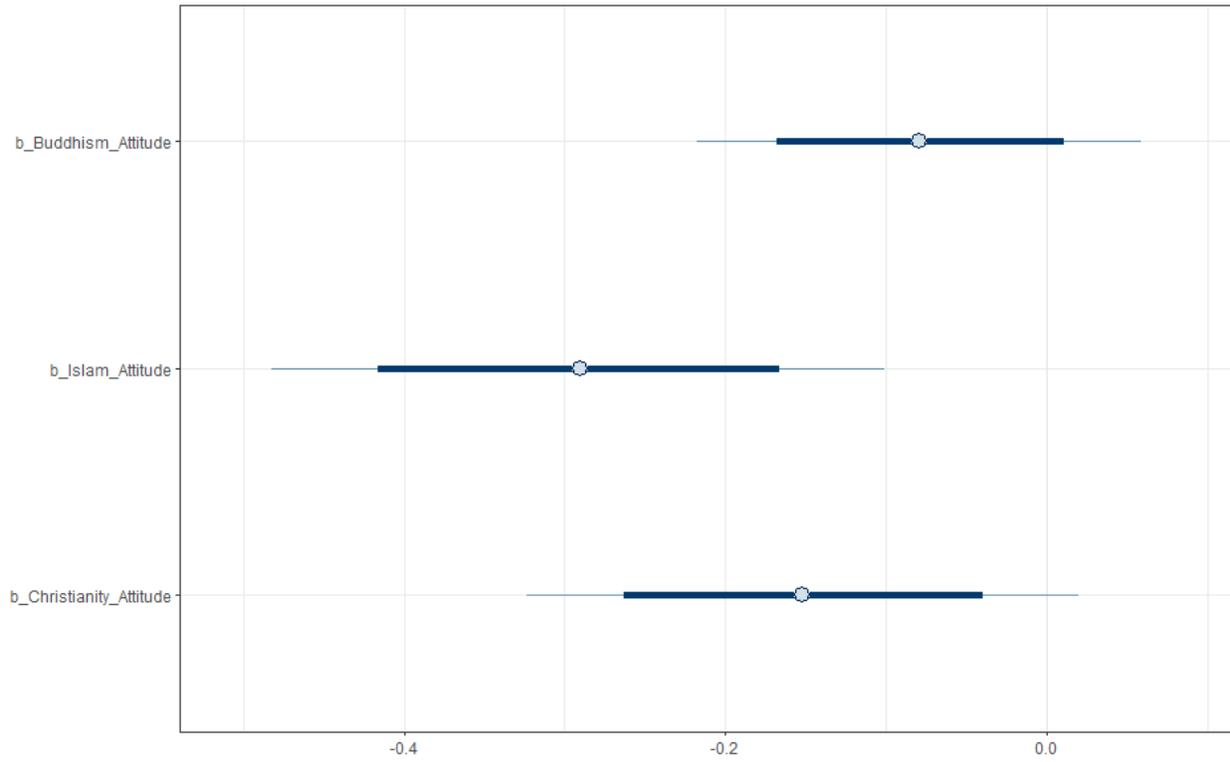
Figure S9.8: Model 9's posterior interval distribution for the three religions as the predictor of the attitude.
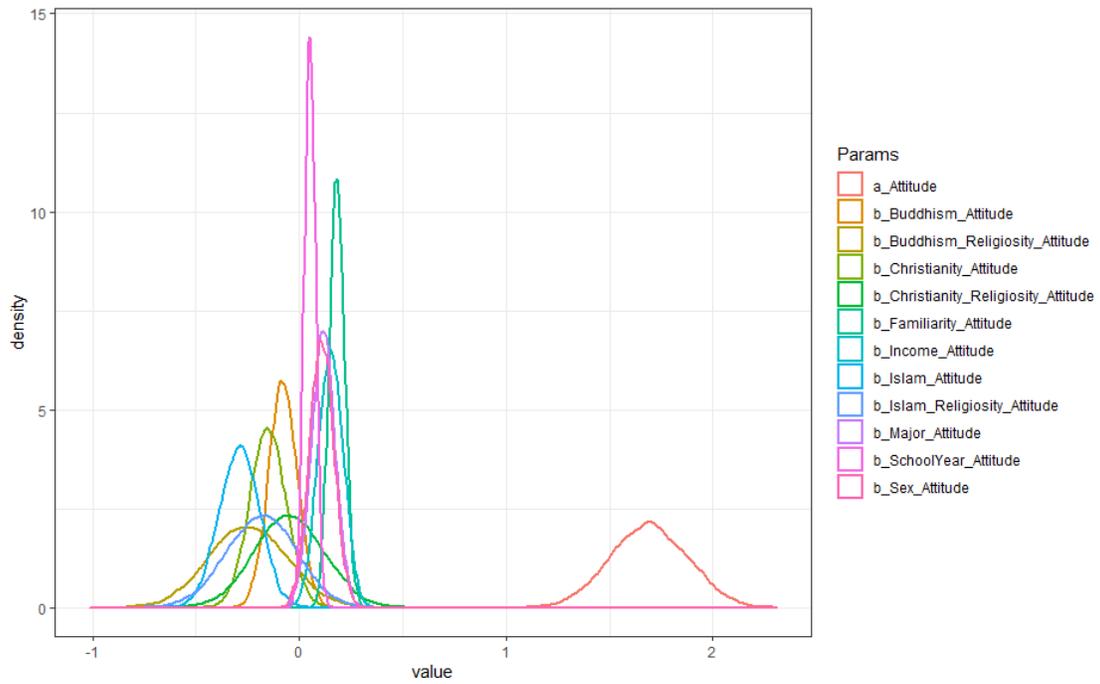
Density distribution

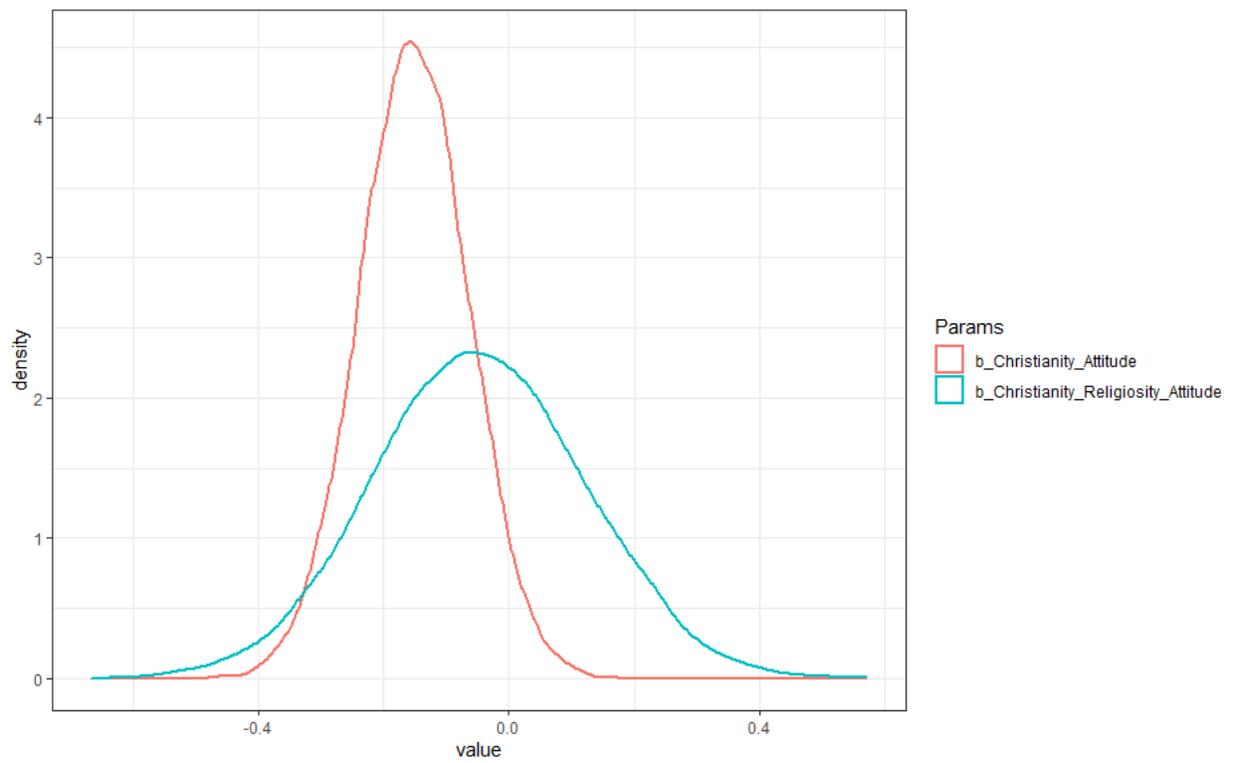**Figure S9.8:** Model 9's posterior density distribution for all explanatory variables.

Figure S9.10: Model 9's posterior density distribution for the interaction between the Christianity and Religiosity variables.
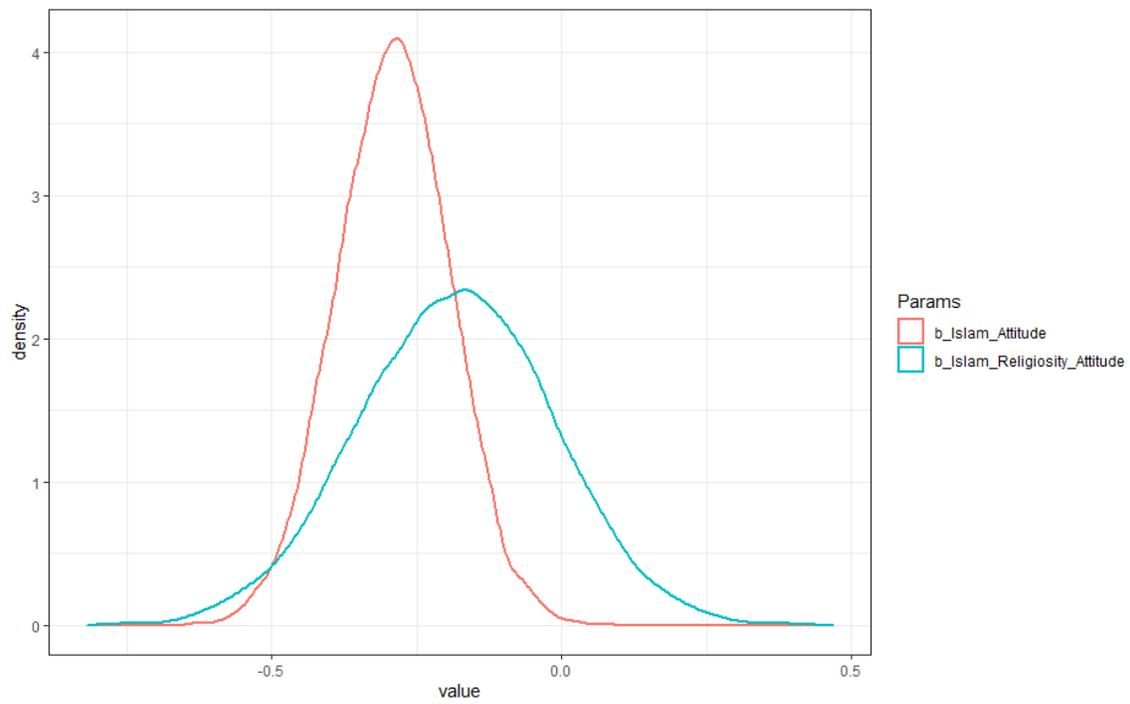
Figure S9.11: Model 9's posterior density distribution for the interaction between the Islam and Religiosity variables.
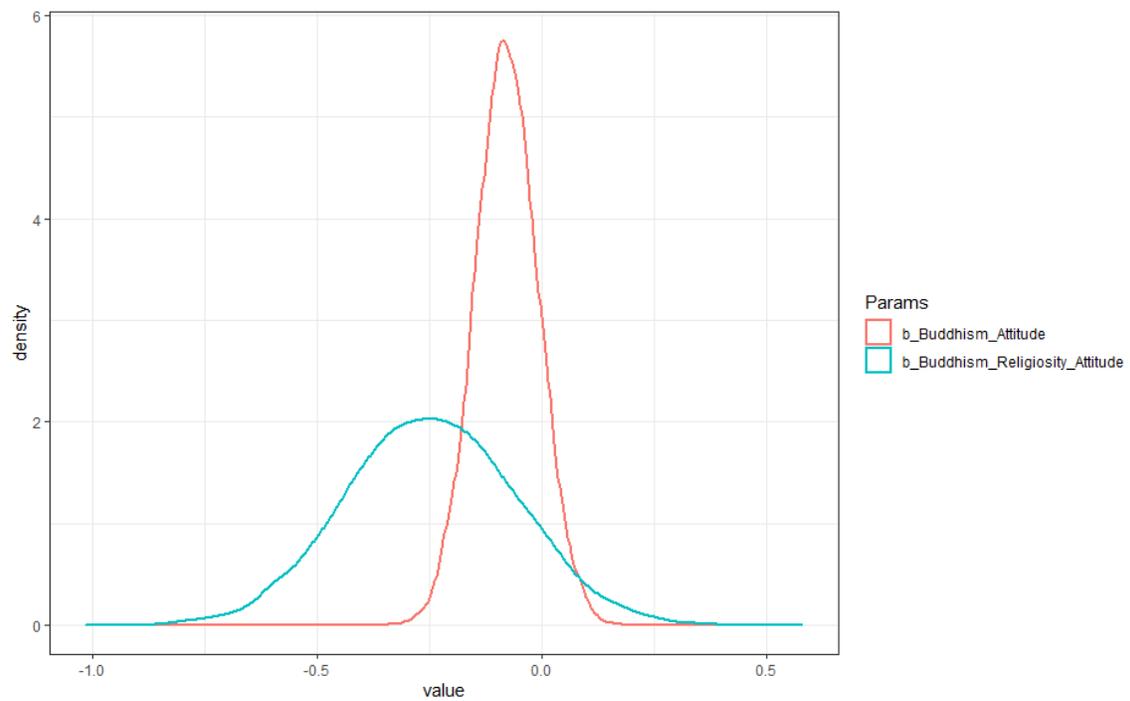

Figure S9.12: Model 9's posterior density distribution for the interaction between the Buddhism and Religiosity variables.
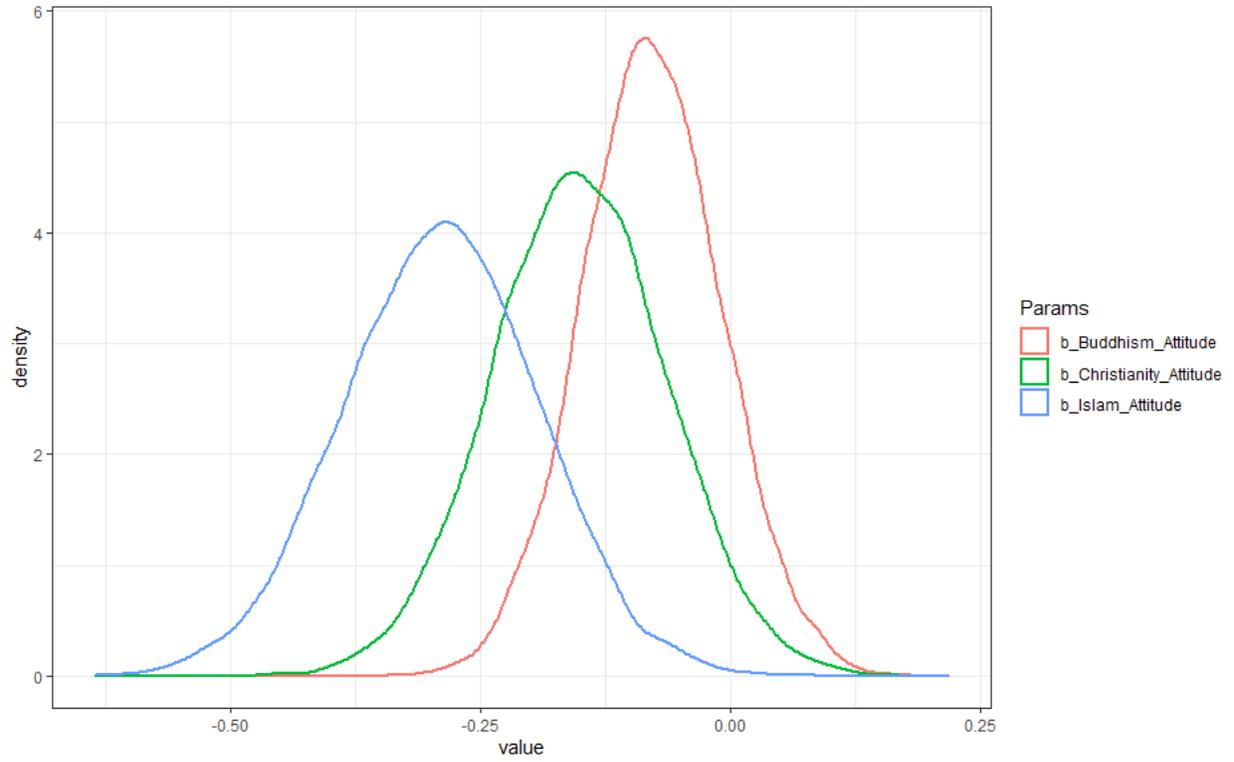
Figure S9.13: Model 9's posterior density distribution for the three religions as the predictor of the attitude toward the AI managers.
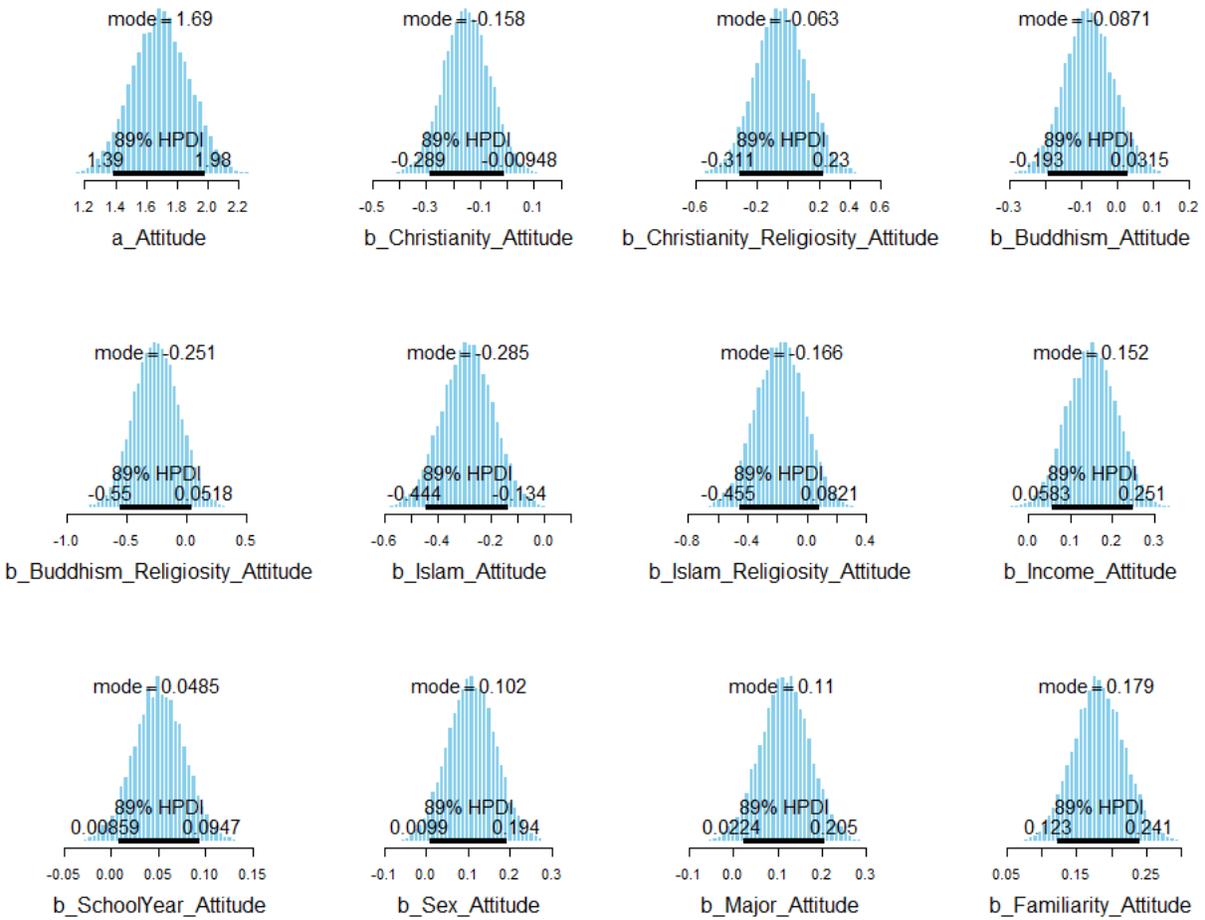
Density distribution with HPDI

Figure S9.14: Model 9's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

        Estimate   SE
elpd_loo    -851.0 19.2
p_loo         13.0  0.9
looic       1702.0 38.3
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
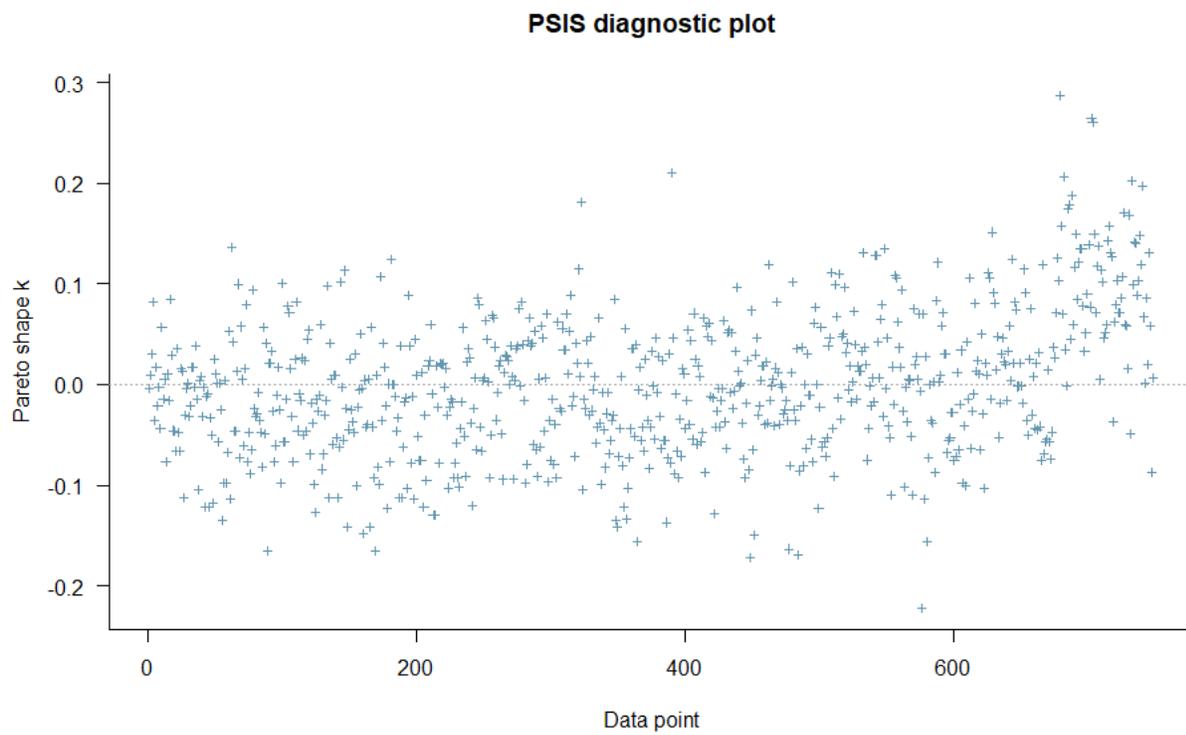
PSIS diagnostic plot

Figure S9.15: PSIS diagnostic plot for model 9.

Marginal predictive distribution
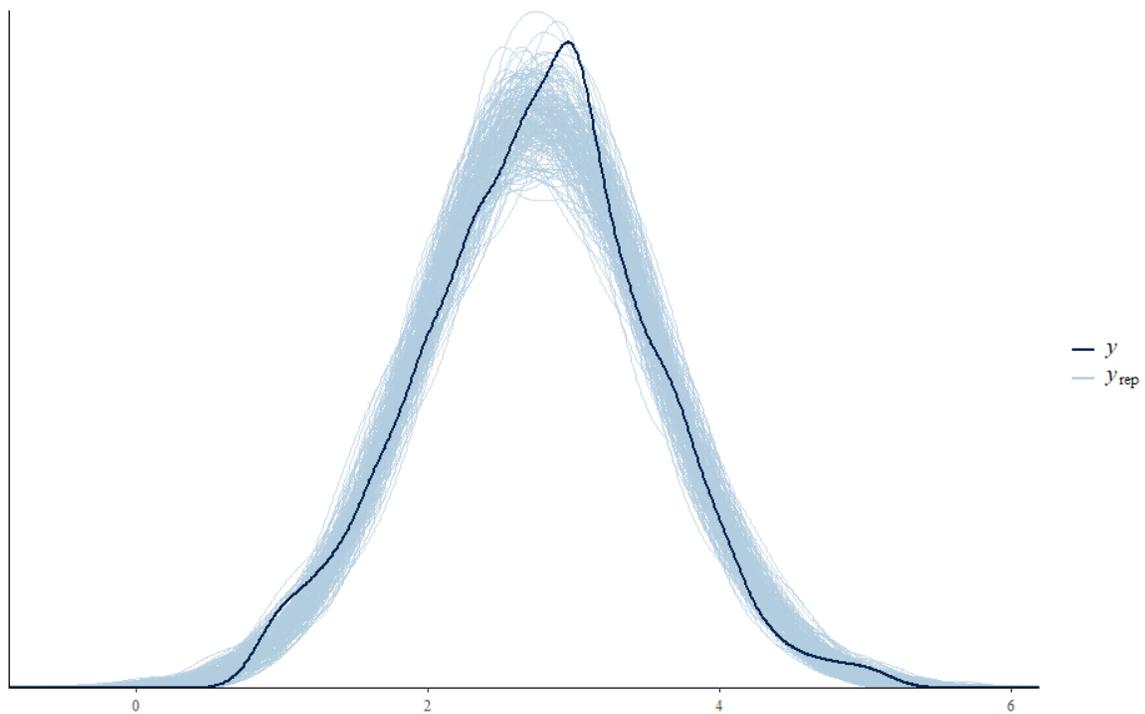

Figure S9.16: Marginal predictive distribution for model 9.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_waic   -851.0 19.2
p_waic        13.0  0.9
waic        1701.9 38.3
```

Model 10

Equation:

$$Attitude \sim \text{alpha}[Region_{varint}] + Familiarity + Income + SchoolYear + Sex + Major$$
$$+ Christianity + Islam + Buddhism + Christianity\_Religiosity$$
$$+ Islam\_Religiosity + Buddhism\_Religiosity$$

Where

- $Region$ is the region where the respondent is from (categorical variable);
- $Attitude$ is attitude towards emotional AI (continuous variable);
- $Christianity$ is whether the respondent's religion is Christianity (binary variable);
- $Islam$ is whether the respondent's religion is Islam (binary variable);
- $Buddhism$ is whether the respondent's religion is Buddhism (binary variable);
- $Religiosity$ is the level of respondent's religiosity (ordinal/continuous variable);
- $Buddhism\_Religiosity$ is interaction between $Buddhism$ and $Religiosity$ so that $Buddhism\_Religiosity = Buddhism * Religiosity$ (continuous variable);
- $Christianity\_Religiosity$ is interaction between $Christianity$ and $Religiosity$ so that $Christianity\_Religiosity = Christianity * Religiosity$ (continuous variable);
- $Islam\_Religiosity$ is interaction between $Islam$ and $Religiosity$ so that $Islam\_Religiosity = Islam * Religiosity$ (continuous variable).

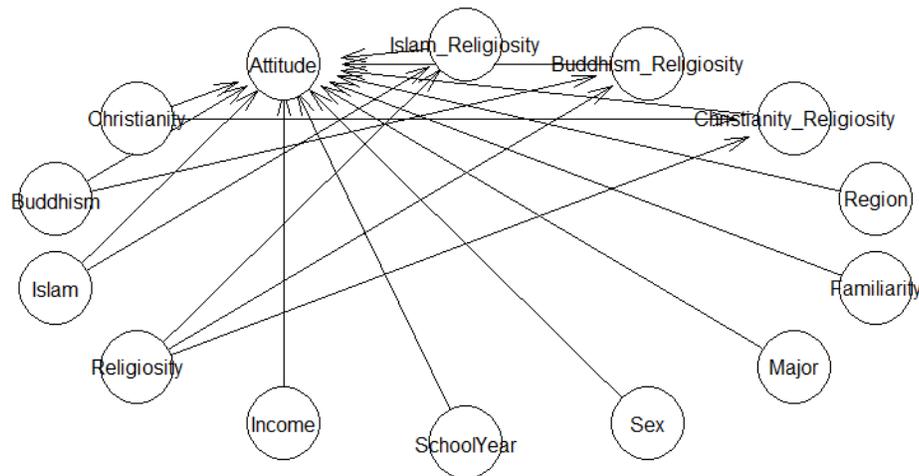**Figure S10.0:** Visualization of model 10.

Table S10.1: Posterior estimate of model 10

	Mean	SD	n_eff	Rhat
a_Attitude	1.61	0.35	6744	1
b_Christianity_Attitude	-0.10	0.09	9854	1
b_Christianity_Religiosity_Attitude	-0.05	0.17	10445	1
b_Buddhism_Attitude	-0.05	0.07	10545	1
b_Buddhism_Religiosity_Attitude	-0.15	0.19	10186	1
b_Islam_Attitude	-0.16	0.10	9251	1
b_Islam_Religiosity_Attitude	-0.24	0.18	9074	1
b_Income_Attitude	0.12	0.06	9551	1
b_SchoolYear_Attitude	0.06	0.03	11553	1
b_Sex_Attitude	0.09	0.06	9601	1
b_Major_Attitude	0.13	0.06	12210	1
b_Familiarity_Attitude	0.21	0.04	9532	1
a_Region[Africa]	1.70	0.26	6458	1
a_Region[Central Asia]	1.75	0.24	10214	1
a_Region[Eastern Asia]	1.78	0.18	9138	1
a_Region[Europe]	1.36	0.26	8058	1
a_Region[Northern America]	1.53	0.24	8558	1
a_Region[South-Eastern Asia]	1.58	0.19	9271	1
a_Region[Southern Asia]	1.51	0.20	8872	1
a_Region[Oceania]	1.70	0.26		
Monte Carlo SE of elpd_loo is 0.0.				
All Pareto k estimates are good (k < 0.5).				

Posterior Diagnostics
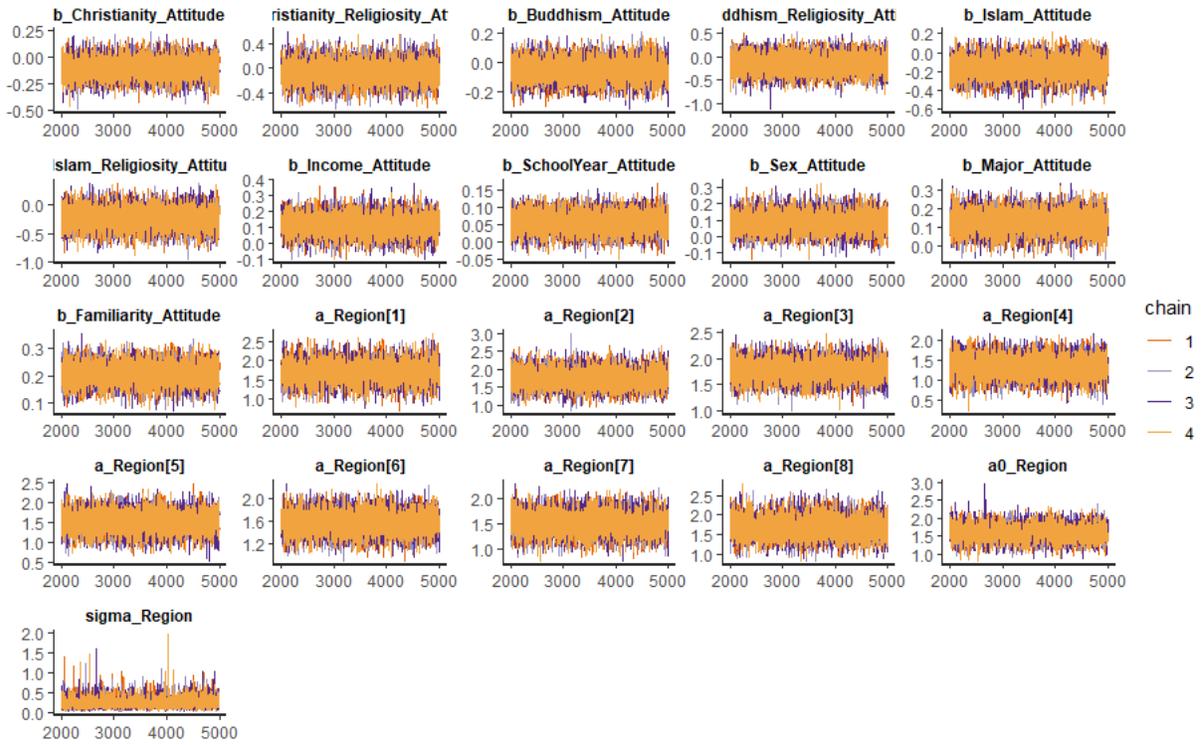
Trace plot diagnostic

Figure S10.1: Trace plot diagnostic for model 10.
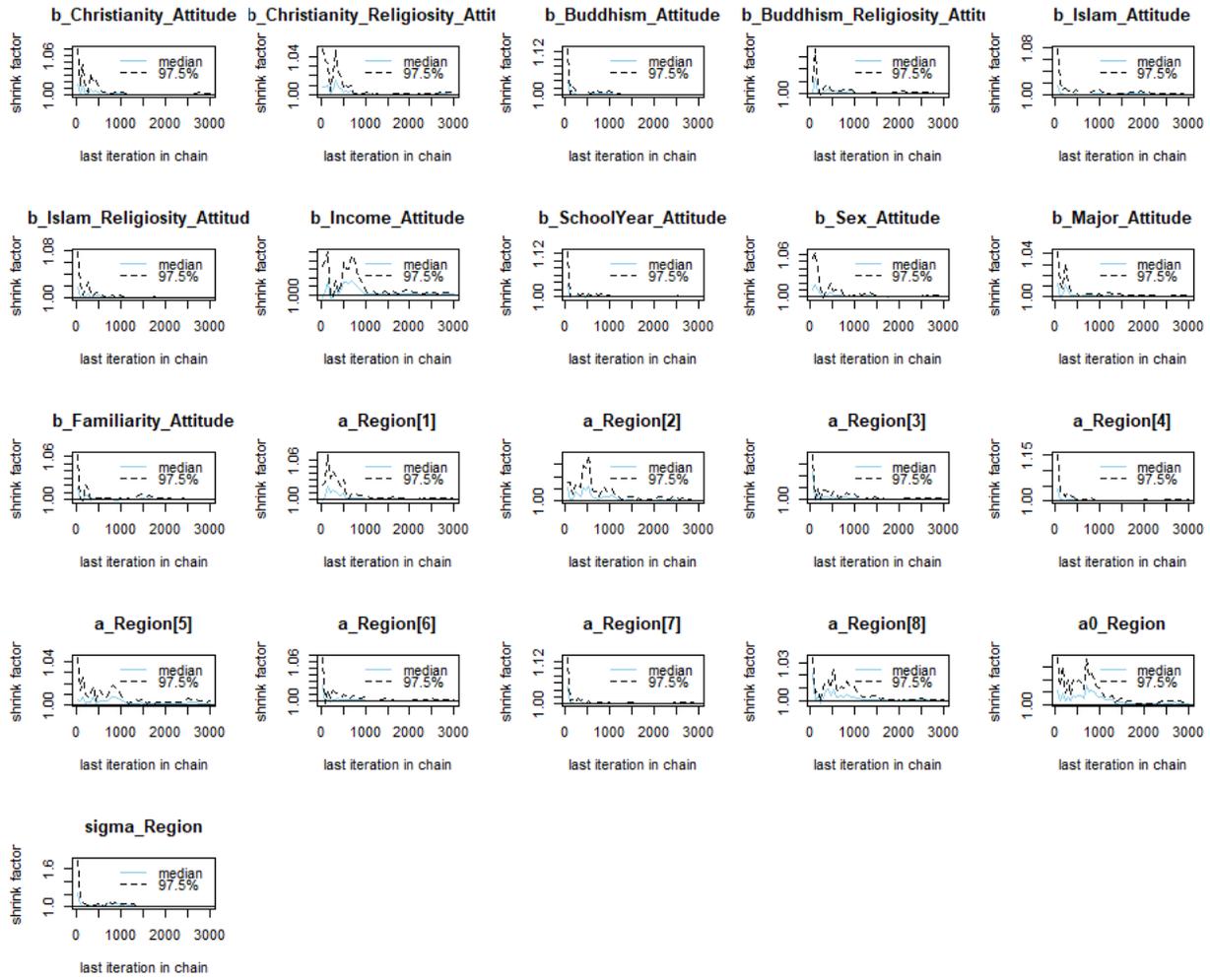
Gelman diagnostic

Figure S10.2: Gelman diagnostic for model 10.
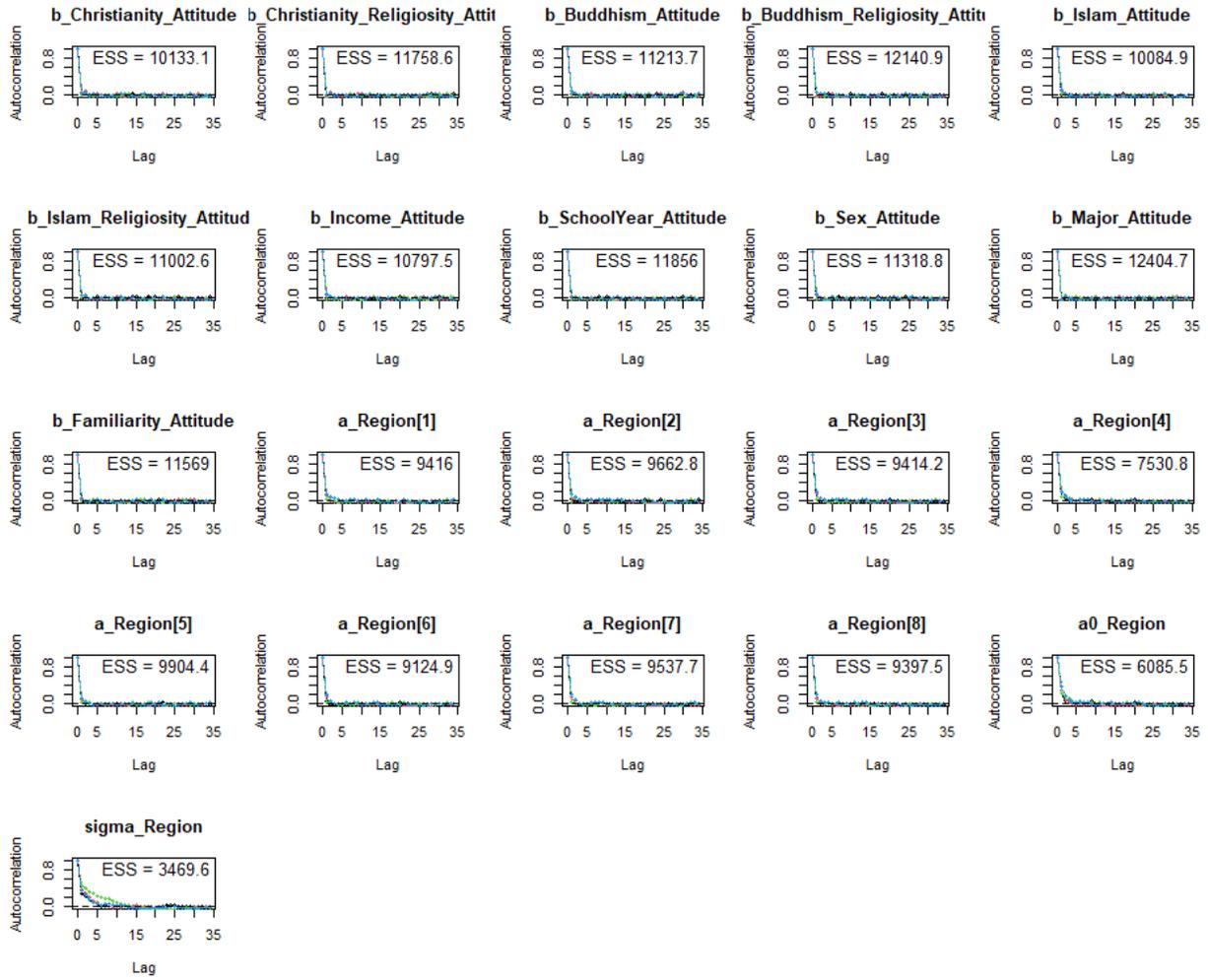
ACF diagnostic

Figure S10.3: ACF diagnostic for model 10.

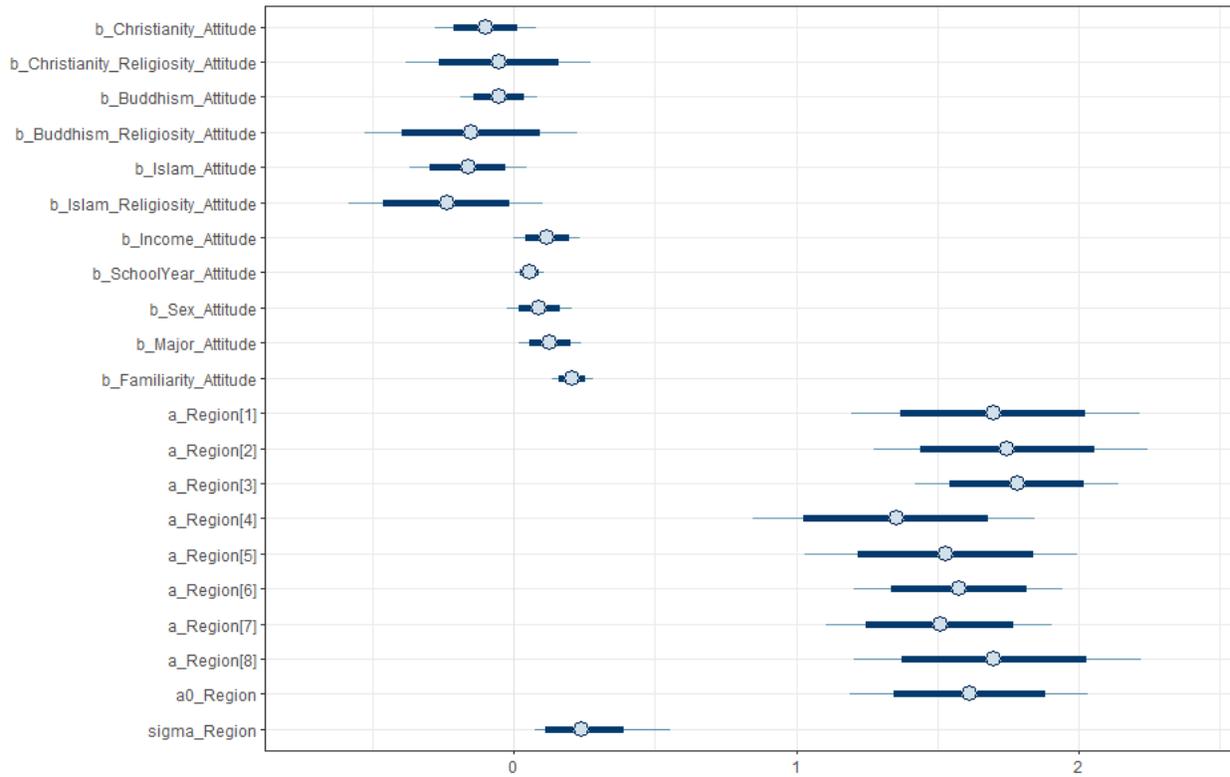## Posterior results

Interval distribution

Figure S10.4: Model 10's posterior interval distribution for all explanatory variables.
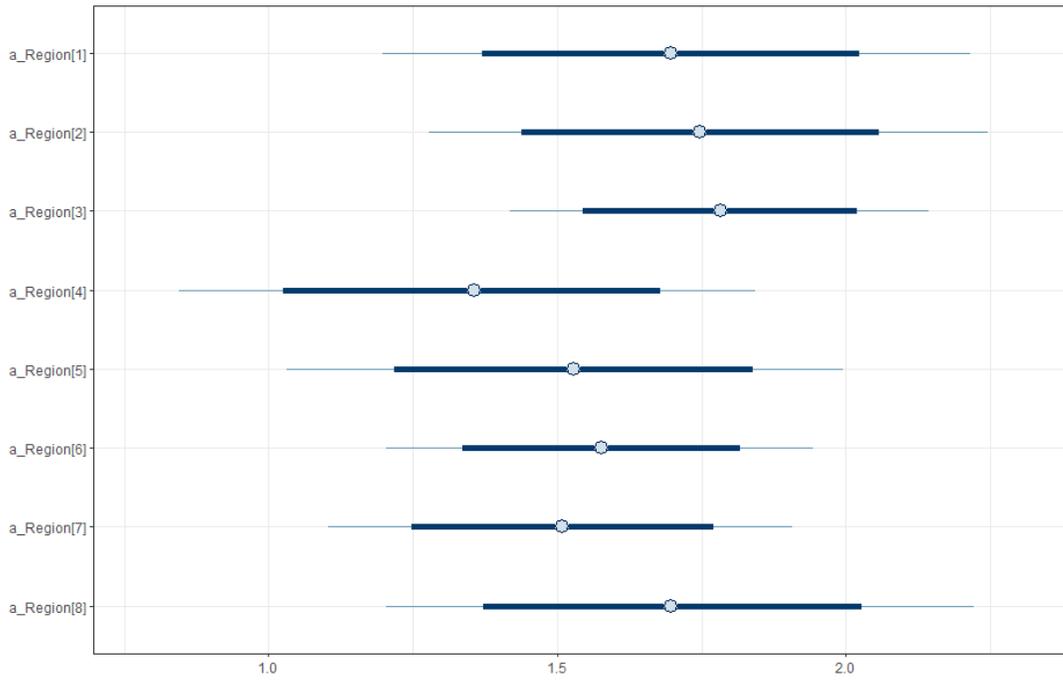

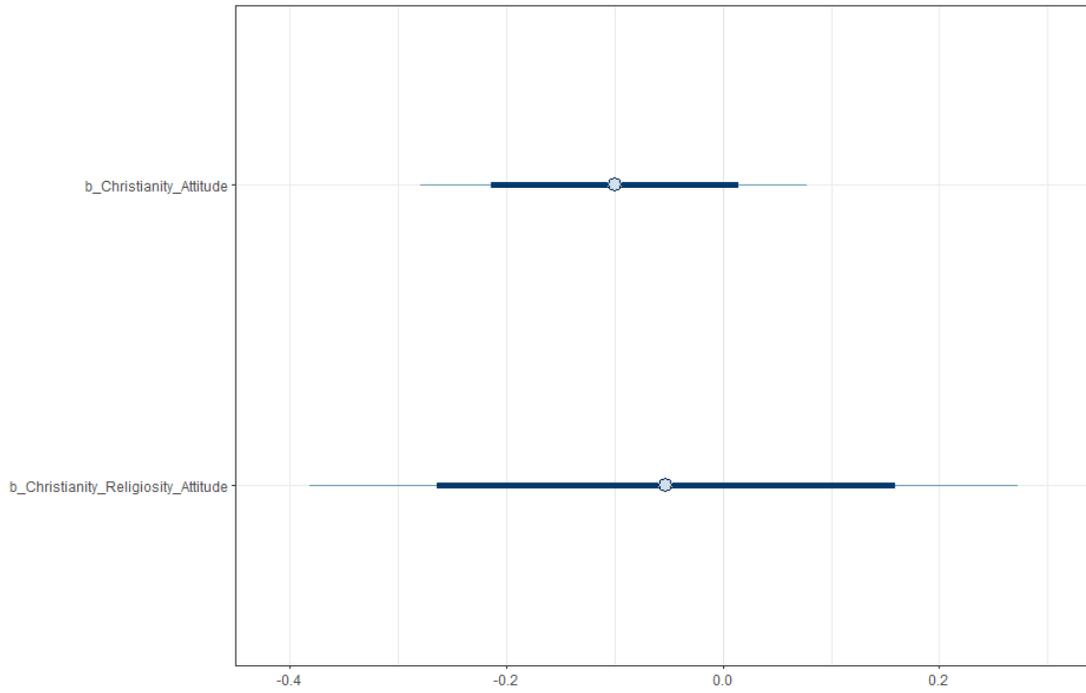**Figure S10.5:** Model 10's posterior interval distribution for the Regions variable.

Figure S10.6: Model 10's posterior interval distribution for the interaction between the Christianity and Religiosity variables.
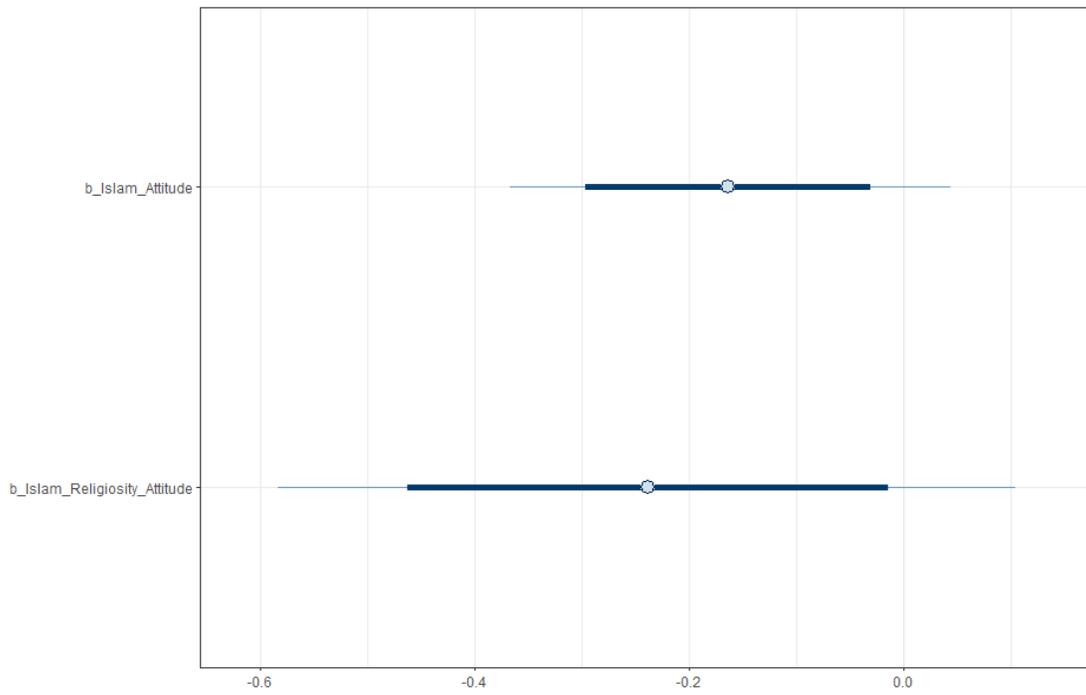

Figure S10.7: Model 10's posterior interval distribution for the interaction between the Islam and Religiosity variables.
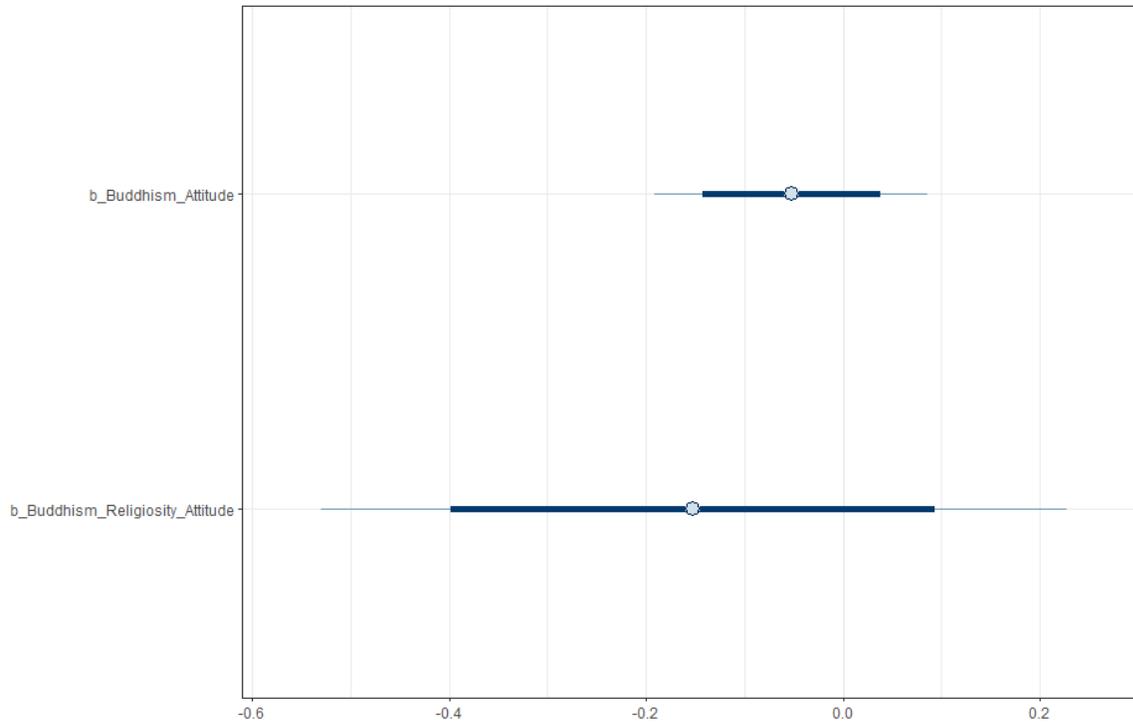
Figure S10.8: Model 10's posterior interval distribution for the interaction between the Buddhism and Religiosity variables.
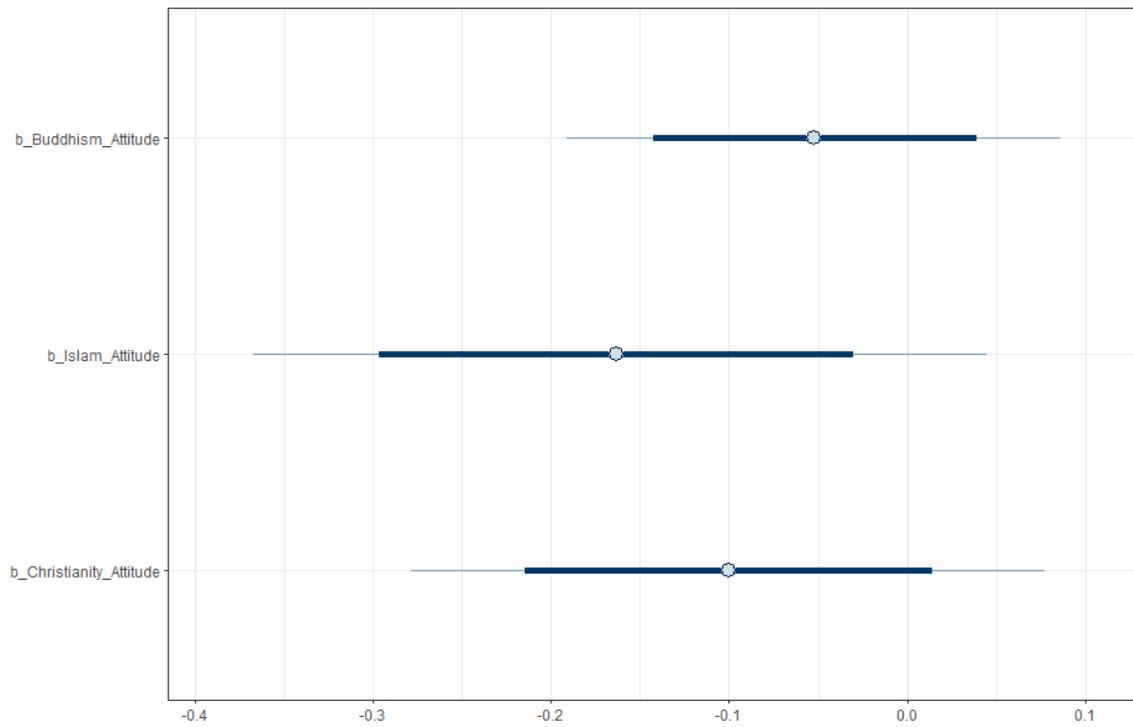

Figure S10.9: Model 10's posterior interval distribution for the three religions as the predictor of the attitude.
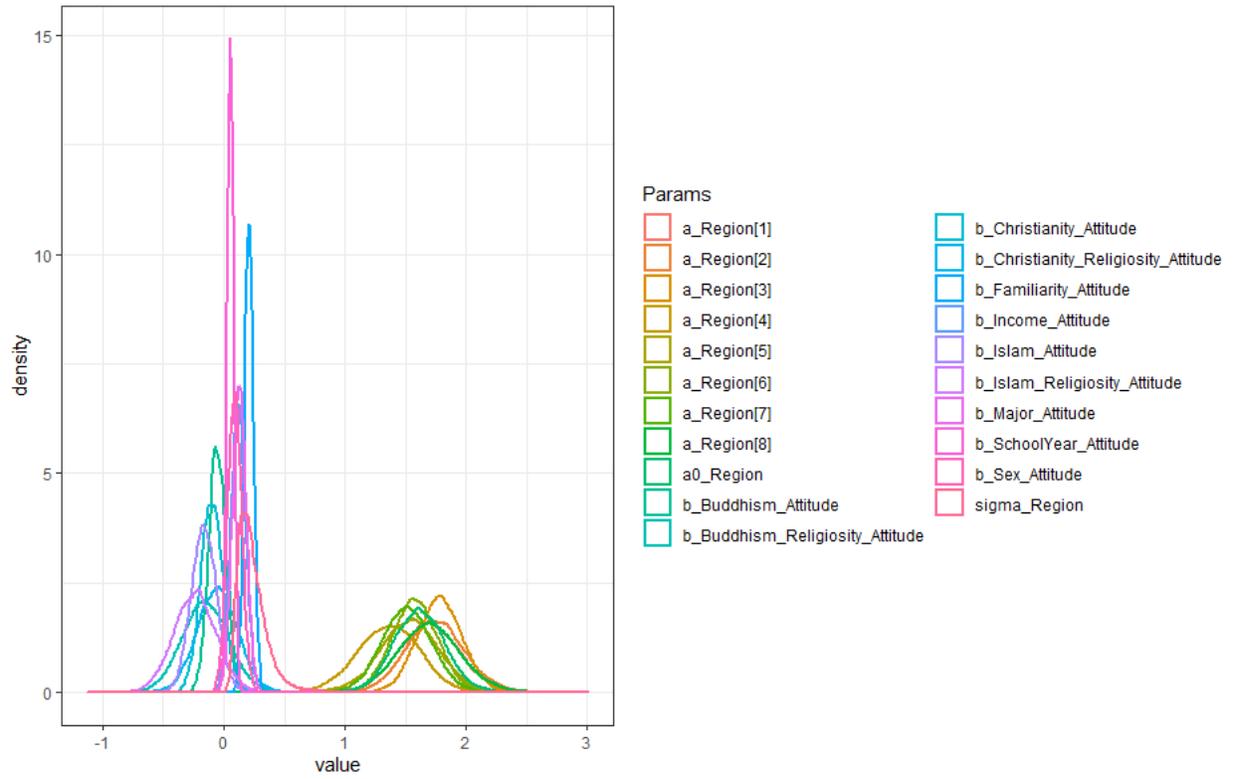
Density distribution

Figure S10.10: Model 10's posterior density distribution for all explanatory variables.
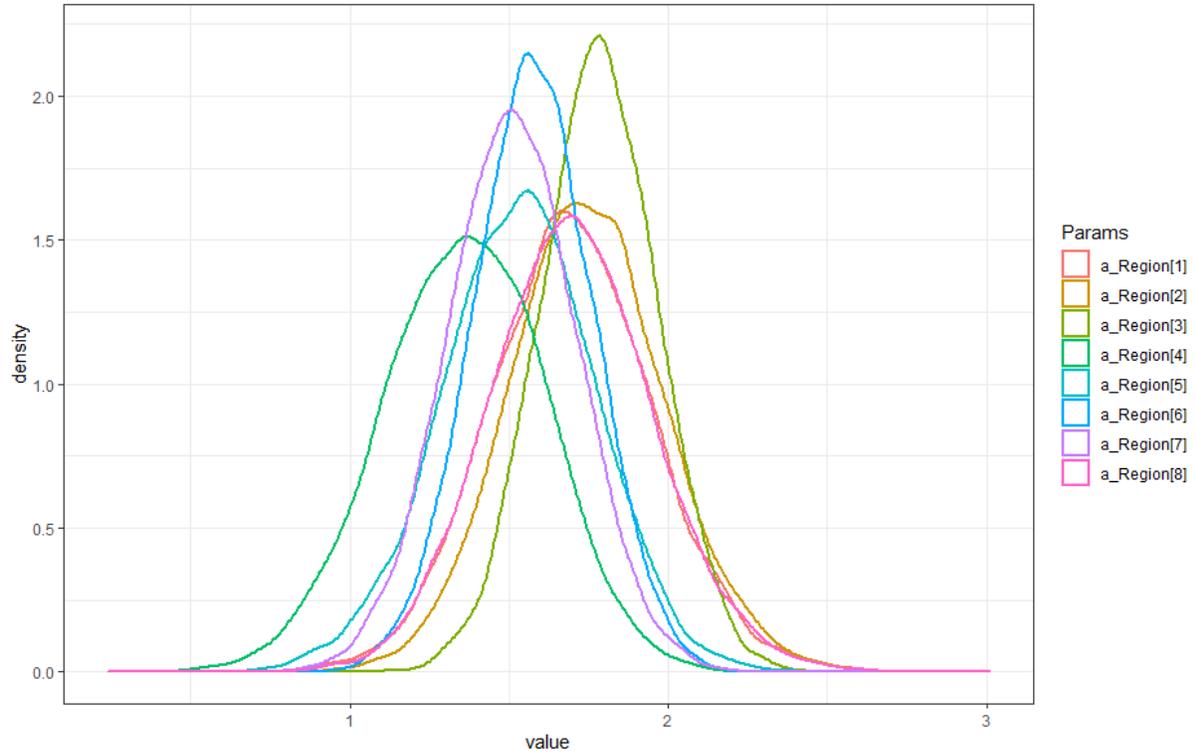
Figure S10.11: Model 10's posterior density distribution for all regions.

Figure S10.12: Model 10's posterior density distribution for the interaction between the Christianity and Religiosity variables.

Figure S10.13: Model 10's posterior density distribution for the interaction between the Islam and Religiosity variables.
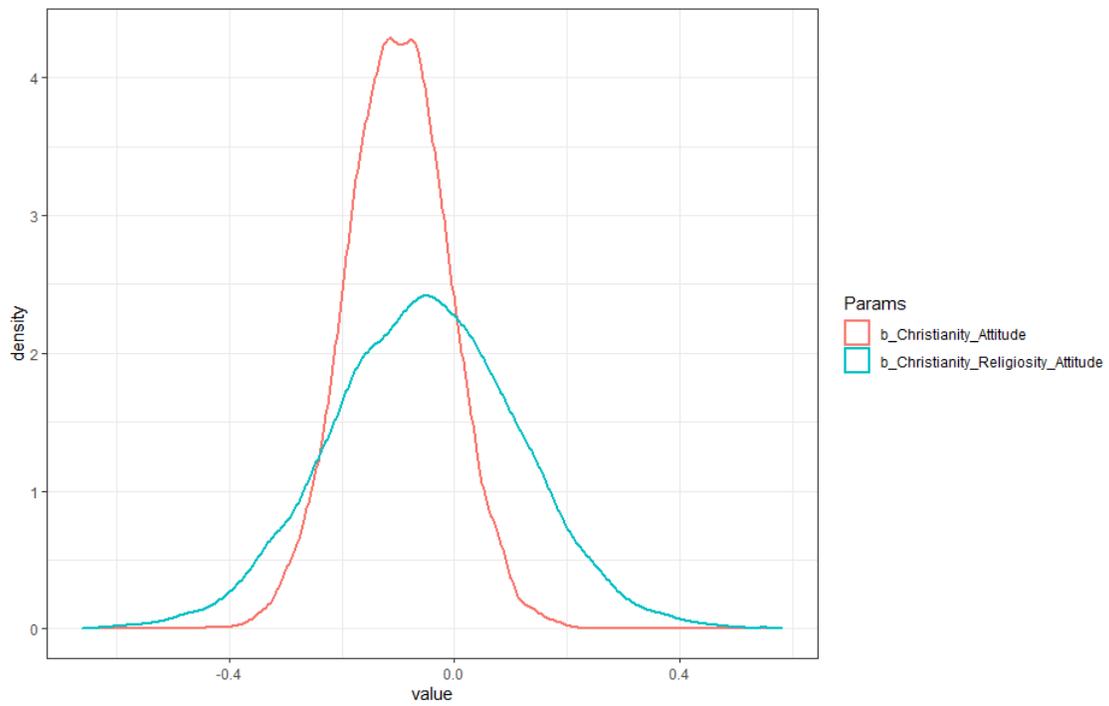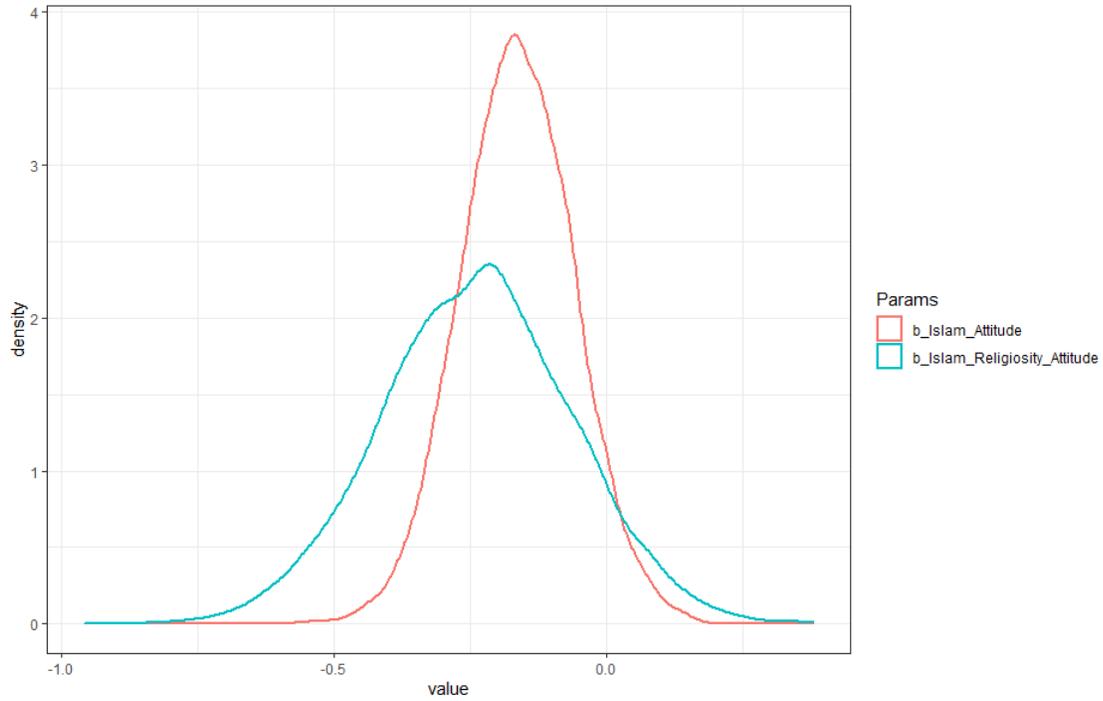

Figure S10.14: Model 10's posterior density distribution for the interaction between the Islam and Religiosity variables.
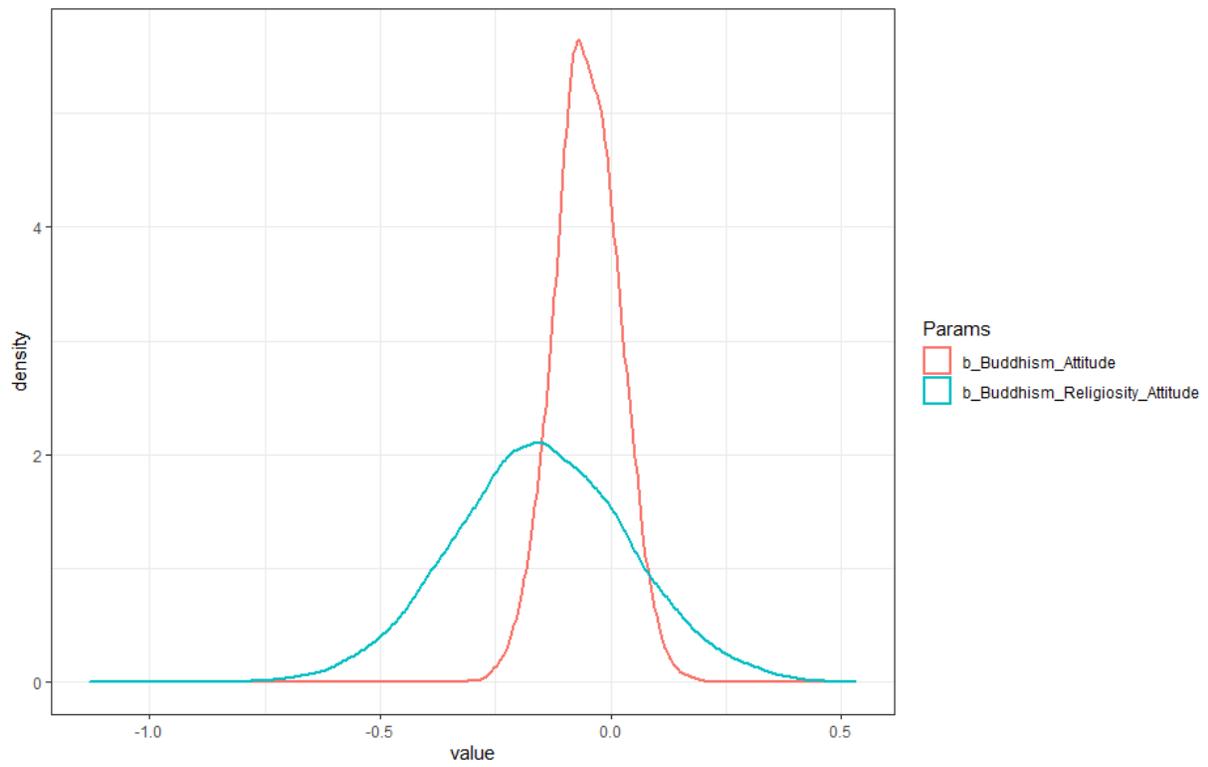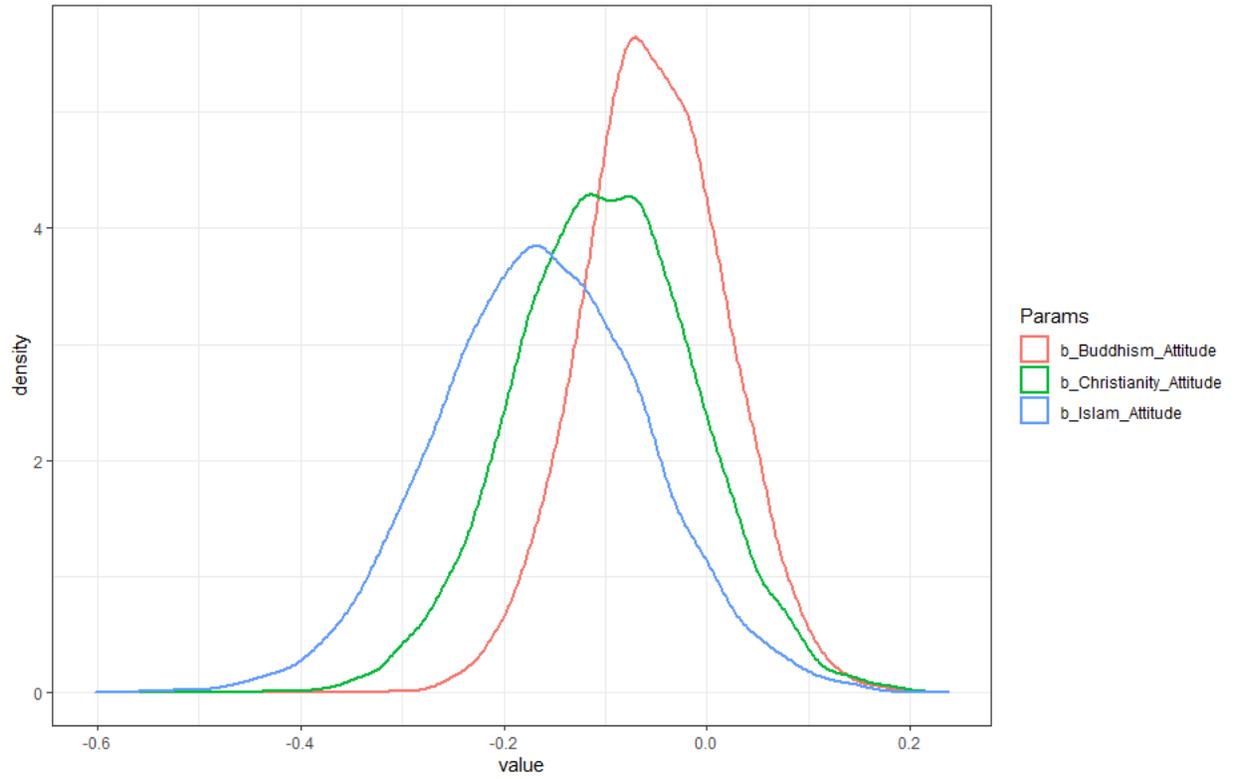
Figure S10.15: Model 10's posterior density distribution for the three religions as the predictor of the attitude toward the AI managers.

Density distribution with HPDI
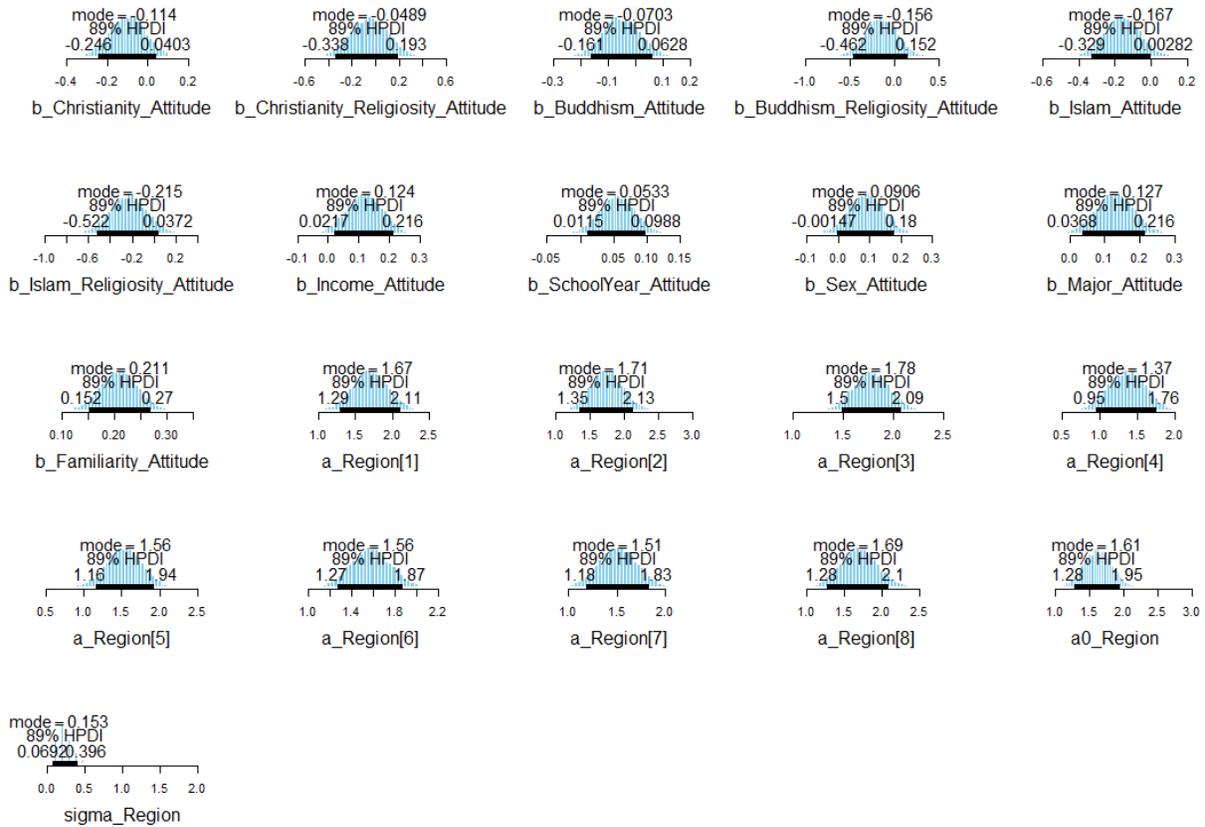
Figure S10.16: Model 10's density distribution with HDPI for all the explanatory variables.

Model Fit Diagnostic

Loo test

```
Computed from 12000 by 748 log-likelihood matrix

         Estimate   SE
elpd_loo   -844.3  19.1
p_loo        18.0   1.2
looic      1688.6  38.2
------
Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).
See help('pareto-k-diagnostic') for details.
```
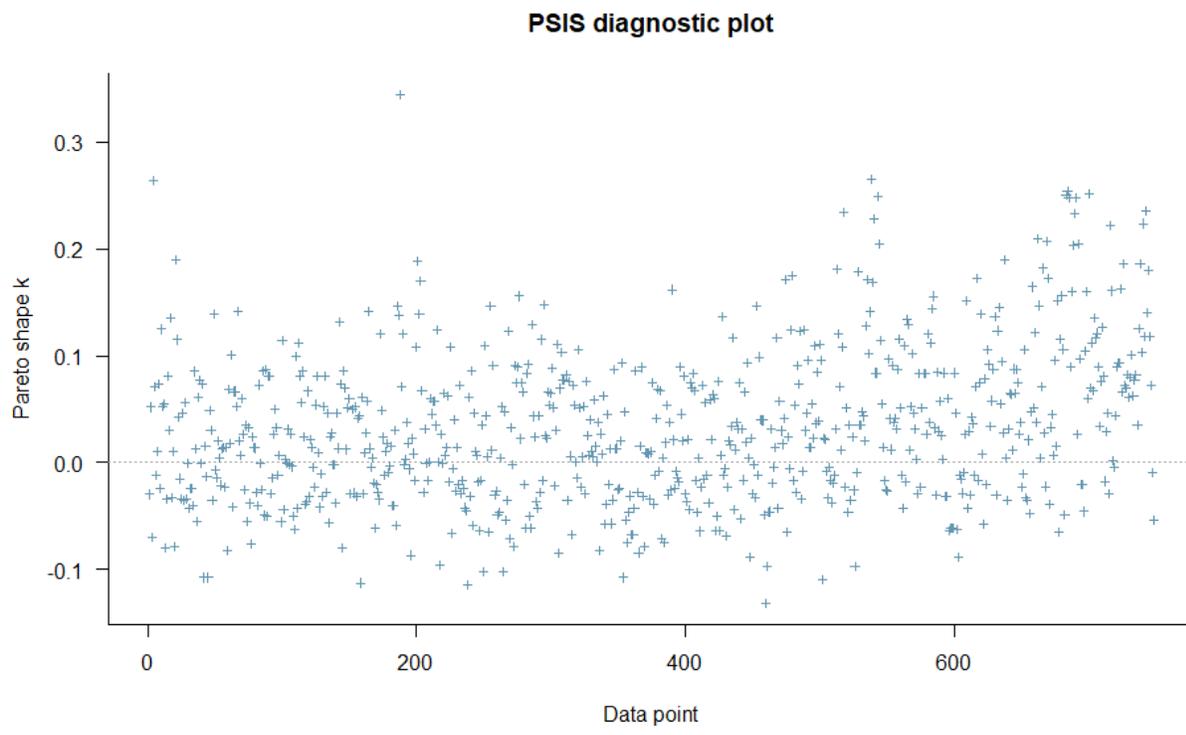
Figure S10.17: PSIS diagnostic plot for model 10.

Marginal predictive distribution

Figure S10.18: Marginal predictive distribution for model 10.

WAIC test

```
Computed from 12000 by 748 log-likelihood matrix

          Estimate   SE
elpd_waic   -844.2 19.1
p_waic        18.0  1.2
waic        1688.4 38.2

2 (0.3%) p_waic estimates greater than 0.4. We recommend trying loo instead.
```
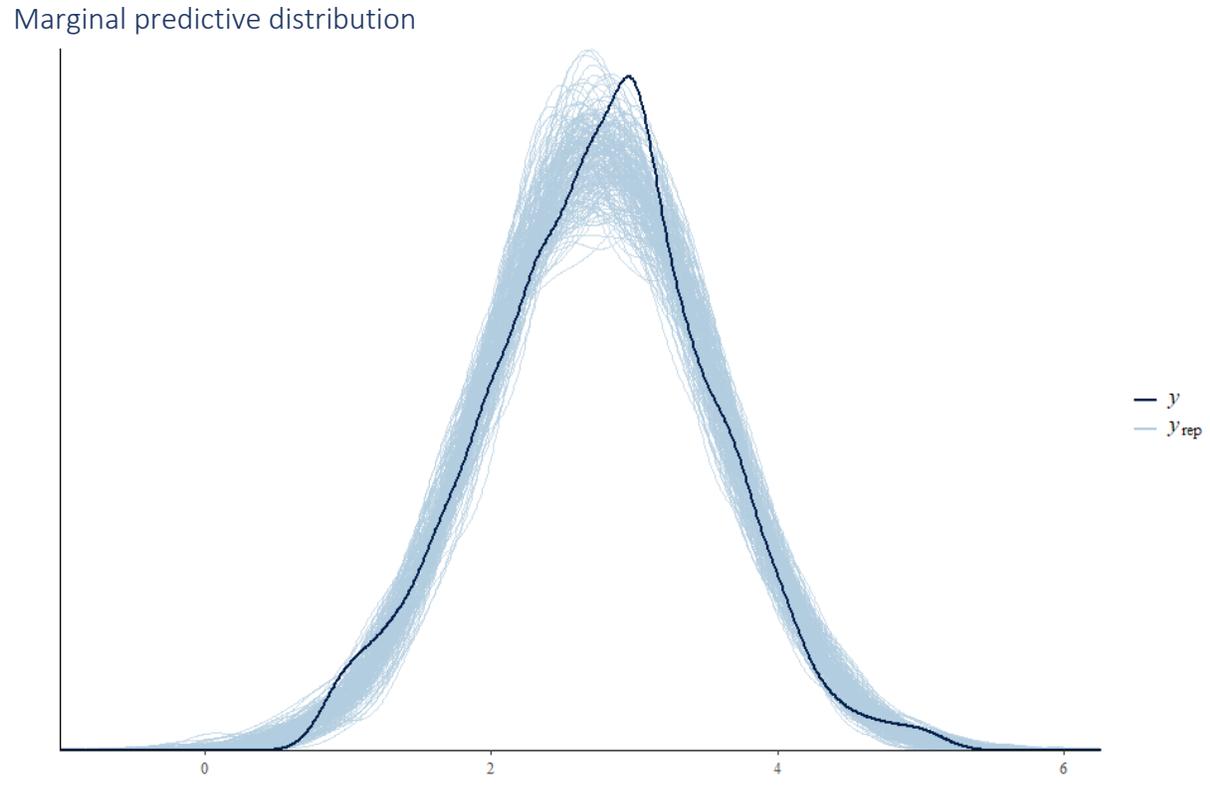Warning message:

2 (0.3%) p_waic estimates greater than 0.4. We recommend trying loo instead.

MODEL 11

$$Attitude \sim \text{alpha}[Nationalities_{varint}] + Familiarity + Income + SchoolYear + Sex + Major$$
$$+ Christianity + Islam + Buddhism + Christianity\_Religiosity$$
$$+ Islam\_Religiosity + Buddhism\_Religiosity$$

Table S11.1. Posterior distribution of model 11 which estimate the effects of different nationalities.

	Mean	SD	n_eff	Rhat
a_Attitude	1.63	0.22	6744	1
b_Christianity_Attitude	0.05	0.12	9854	1
b_Christianity_Religiosity_Attitude	0.01	0.18	10445	1
b_Buddhism_Attitude	-0.02	0.08	10545	1
b_Buddhism_Religiosity_Attitude	-0.20	0.23	10186	1
b_Islam_Attitude	-0.01	0.14	9251	1
b_Islam_Religiosity_Attitude	-0.53	0.20	9074	1
b_Income_Attitude	0.02	0.07	9551	1
b_SchoolYear_Attitude	0.04	0.03	11553	1
b_Sex_Attitude	0.14	0.06	9601	1
b_Major_Attitude	0.16	0.06	12210	1
b_Familiarity_Attitude	0.24	0.04	9532	1
a_Country[Bangladesh]	1.45	0.28	6458	1
a_Country[China]	1.73	0.21	10214	1
a_Country[India]	1.38	0.28	9138	1
a_Country[Indonesia]	1.47	0.24	8058	1
a_Country[Japan]	1.96	0.21	8558	1
a_Country[Nepal]	1.52	0.24	9271	1

a_Country[South Korea]	1.69	0.23	8872	1
a_Country[Sri Lanka]	1.68	0.25	8842	1
a_Country[Thailand]	1.63	0.22	7851	1
a_Country[Vietnam]	1.78	0.21	7526	1

Monte Carlo SE of elpd_loo is 0.0.

All Pareto k estimates are good (k < 0.5).