



## Supplementary Information for

### National religiosity eases the psychological burden of poverty

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Country	GWP							IPP							WVS						
	N	Age		%	Nat.	GDP	Corr.	N	Age		%	Nat.	GDP	Corr.	N	Age		%	Nat.	GDP	Corr.
		M	SD	Women	Rel.				SES-WB	M	SD	Women				Rel.	SES-WB	M	SD		
Georgia	10,664	47.51	18.26	56.30	0.81	3.91	0.46								4,612	43.24	17.14	54.14	0.18	3.72	0.27
Germany	26,515	51.57	18.16	53.72	0.39	4.63	0.44	93,222	33.67	11.68	56.87	2.01	4.60	0.18	5,722	48.13	17.33	53.36	-0.75	4.54	0.27
Ghana	10,175	34.62	14.68	49.02	0.94	3.55	0.27								3,074	32.39	13.47	49.64	0.62	3.49	0.20
Greece	9,850	49.60	18.60	55.44	0.71	4.44	0.42	1,703	29.95	9.21	63.53	2.23	4.43	0.16							
Guatemala	9,944	36.40	16.73	54.28	0.88	3.85	0.26	2,588	28.19	8.42	61.24	2.95	3.82	0.13							
Guinea	6,495	37.05	16.73	46.57	0.96	3.27	0.27														
Guyana	471	36.49	15.27	50.53	0.87	3.70	0.18														
Haiti	3,974	36.87	15.75	50.96	0.81	3.22	0.13								1,612	33.57	14.74	51.18	0.21	3.25	-0.03
Honduras	10,220	36.57	16.19	53.79	0.85	3.63	0.28	1,345	28.94	7.94	64.76	3.05	3.60	0.07							
Hong Kong	7,550	42.50	18.54	53.05	0.25	4.72	0.43	2,758	29.76	9.69	64.29	2.36	4.67	0.09	2,192	44.36	16.05	53.15	-0.92	4.65	0.22
Hungary	9,770	52.54	18.05	59.45	0.40	4.38	0.43	815	30.44	9.95	59.14	2.12	4.33	0.14	1,615	45.35	17.25	53.56	-0.59	4.22	0.32
Iceland	3,516	47.51	16.88	55.97	0.35	4.68	0.44	535	29.02	9.87	58.88	2.08	4.61	0.21							
India	45,476	36.42	14.65	45.01	0.83	3.70	0.35	13,181	27.49	7.59	41.76	3.14	3.66	0.07	9,535	39.89	14.18	43.11	0.30	3.47	0.25
Indonesia	13,800	38.66	14.26	56.23	0.98	3.96	0.32	1,946	27.15	7.97	55.65	3.17	3.95	0.08	2,717	39.09	14.30	48.07	0.46	3.77	0.16
Iran	11,187	36.48	13.58	49.36	0.82	4.25	0.38	562	28.19	8.52	53.56	2.45	4.23	0.13	4,965	33.59	14.17	47.79	0.34	4.13	0.25
Iraq	14,346	35.16	12.35	44.91	0.85	4.15	0.25								6,058	36.96	13.65	50.50	-0.05	4.05	0.27
Ireland	10,103	47.08	15.98	53.96	0.55	4.73	0.36	8,632	29.48	10.18	61.98	2.21	4.66	0.16							
Israel	10,616	41.62	16.37	51.99	0.45	4.51	0.29	1,583	31.51	10.84	55.40	2.00	4.47	0.17							
Italy	12,359	49.05	16.17	57.25	0.65	4.56	0.37	3,174	33.28	10.50	52.80	2.26	4.54	0.12	924	45.67	15.55	49.24	0.20	4.48	0.23
Ivory Coast	5,769	34.20	13.38	39.28	0.90	3.52	0.26														
Jamaica	1,810	40.38	17.11	53.31	0.83	3.93	0.28	595	29.99	9.56	76.81	3.44	3.91	0.02							
Japan	14,838	53.65	16.77	53.38	0.25	4.57	0.42	2,775	29.13	9.20	51.93	2.24	4.55	0.11	5,424	47.94	15.98	52.08	-0.74	4.44	0.40
Jordan	14,616	35.27	14.75	51.18	0.94	3.96	0.36								3,579	37.78	14.89	50.63	0.33	3.90	0.23
Kazakhstan	9,944	41.81	16.48	58.54	0.45	4.35	0.28								1,500	40.02	15.35	60.40	-0.19	4.33	0.23
Kenya	11,875	32.41	12.51	51.15	0.94	3.42	0.24	598	30.68	8.09	62.21	3.50	3.42	0.06							
Kosovo	9,655	38.81	16.23	49.30	0.81	3.94	0.32														
Kuwait	12,594	35.69	11.95	37.91	0.91	4.88	0.23	388	28.91	9.53	58.51	3.08	4.90	0.02	1,089	36.59	11.77	34.89	0.07	4.87	0.19
Kyrgyzstan	10,458	41.43	17.12	61.91	0.70	3.49	0.29								2,513	38.06	14.78	52.85	0.09	3.40	0.11





Country	GWP							IPP							WVS							
	N	Age		%	Nat.	GDP	Corr.	N	Age		%	Nat.	GDP	Corr.	N	Age		%	Nat.	GDP	Corr.	
		M	SD						Women	Rel.						SES-WB	M					SD
Sudan	7,378	35.55	13.91	46.04	0.91	3.56	0.23															
Suriname	434	39.23	14.65	53.69	0.79	4.19	0.31															
Sweden	11,464	50.91	17.97	53.97	0.19	4.65	0.32	7,993	30.22	11.05	57.85	1.67	4.63	0.19	2,873	46.63	17.71	50.02	-0.90	4.50	0.16	
Switzerland	6,327	52.26	17.76	54.88	0.41	4.78	0.36	17,235	33.93	11.95	58.04	2.05	4.73	0.17	2,317	48.96	17.00	52.14	-0.18	4.55	0.19	
Tajikistan	10,545	37.23	16.23	59.73	0.78	3.38	0.26															
Tanzania	10,356	34.65	14.03	50.36	0.96	3.37	0.24							1,073	37.67	13.52	44.08	0.56	3.11	0.13		
Thailand	13,126	43.53	15.36	64.98	0.96	4.15	0.29	1,595	27.53	10.02	58.93	2.74	4.14	0.09	2,673	45.31	14.36	49.49	-0.36	4.13	0.07	
Togo	5,650	34.04	14.16	45.01	0.86	3.16	0.27															
Trinidad and Tobago	1,893	42.29	17.31	52.46	0.85	4.50	0.26	632	30.78	9.96	72.31	3.08	4.49	0.10	1,964	44.09	17.59	54.84	0.31	4.46	0.14	
Tunisia	11,940	38.16	16.02	49.53	0.92	4.03	0.46							1,197	38.72	16.16	47.45	-0.03	4.04	0.17		
Turkey	12,526	37.39	14.50	49.45	0.80	4.33	0.34	992	29.37	8.70	57.86	2.39	4.27	0.08	7,974	36.94	13.88	49.84	0.12	4.06	0.21	
Turkmenistan	7,579	36.81	15.32	50.30	0.73	4.15	0.09															
Uganda	10,346	32.43	13.31	48.74	0.95	3.21	0.22							847	30.35	9.26	51.59	0.51	2.94	0.12		
Ukraine	10,542	46.08	17.66	62.98	0.43	3.91	0.37							4,997	45.53	16.96	60.84	-0.23	3.74	0.34		
United Arab Emirates	16,071	34.51	11.05	44.84	0.94	4.81	0.31	2,571	30.28	9.45	53.95	2.97	4.81	0.16								
United Kingdom	22,175	50.61	16.67	53.45	0.30	4.58	0.39	80,779	29.42	10.79	54.54	1.90	4.56	0.14	1,081	46.07	18.78	53.75	-0.55	4.44	0.15	
United States	12,803	52.25	18.35	50.78	0.65	4.72	0.44	745,859	30.07	11.45	62.95	2.70	4.70	0.13	7,168	45.34	17.34	52.06	0.15	4.56	0.20	
Uruguay	10,640	49.15	19.55	61.02	0.43	4.27	0.37	2,534	31.41	10.63	68.47	2.19	4.19	0.16	2,904	45.92	18.14	55.89	-0.49	4.12	0.11	
Uzbekistan	9,428	39.47	16.54	62.75	0.58	3.71	0.26							1,430	39.30	14.84	61.05	-0.22	3.65	0.13		
Venezuela	9,373	42.79	17.30	60.55	0.78	4.24	0.36	7,302	29.12	9.66	66.90	2.93	4.21	0.10	2,355	36.48	14.42	49.60	0.18	4.05	0.15	
Vietnam	11,266	42.34	15.62	54.64	0.34	3.70	0.33	469	28.13	8.80	59.91	2.48	3.67	0.06	2,445	41.45	15.76	49.37	-0.96	3.46	0.11	
Yemen	12,539	34.28	13.95	49.41	0.97	3.58	0.45							975	35.58	13.17	50.36	0.26	3.60	0.27		
Zambia	9,232	32.24	13.13	52.03	0.95	3.54	0.26							1,214	29.57	11.30	47.86	0.40	3.41	0.20		
Zimbabwe	10,573	34.90	15.28	54.59	0.89	3.30	0.38							2,465	34.25	13.99	52.25	0.50	3.36	0.30		

**Table S1.** National descriptive statistics of all datasets. Following previous research with the same datasets (1, 2) we included all regions that met our statistical requirements, even if they were not technically a nation. <sup>a</sup>In line with the documentation of the World Values Survey Bosnia and Bosnia-Herzegovina were treated as two entities, because the data from Bosnia were collected before Bosnia-Herzegovina was founded.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. National Religiosity - GWP	72.04	24.92										
2. National Religiosity - IPP	2.61	0.44	.75** [.67, .81]									
3. National Religiosity - WVS	-0.05	0.44	.90** [.85, .93]	.77** [.68, .84]								
4. Log 10 GDP per capita - GWP	4.01	0.52	-.61** [-.70, -.50]	-.46** [-.57, -.33]	-.51** [-.64, -.35]							
5. Log 10 GDP per capita - IPP	4.29	0.36	-.47** [-.62, -.29]	-.57** [-.70, -.41]	-.30* [-.50, -.07]	1.00** [1.00, 1.00]						
6. Log 10 GDP per capita - WVS	3.96	0.45	-.40** [-.56, -.23]	-.47** [-.61, -.30]	-.42** [-.57, -.24]	.96** [.93, .97]	.97** [.95, .98]					
7. Individualism	-0.58	0.56	-.78** [-.83, -.71]	-.62** [-.71, -.51]	-.62** [-.73, -.48]	.66** [.56, .74]	.56** [.38, .69]	.49** [.32, .63]				
8. Income Inequality	37.64	7.99	.50** [.37, .62]	.41** [.26, .53]	.35** [.16, .52]	-.39** [-.52, -.24]	-.48** [-.63, -.29]	-.19 [-.38, .02]	-.50** [-.61, -.36]			
9. Pathogen Prevalence	0.05	1.92	.60** [.49, .69]	.52** [.40, .62]	.48** [.32, .61]	-.68** [-.75, -.58]	-.64** [-.75, -.50]	-.49** [-.62, -.32]	-.63** [-.71, -.54]	.54** [.42, .64]		
10. Employment in Agriculture	27.12	24.99	.57** [.45, .66]	.36** [.22, .49]	.52** [.37, .65]	-.85** [-.89, -.80]	-.75** [-.83, -.64]	-.77** [-.84, -.67]	-.58** [-.67, -.47]	.31** [.17, .45]	.61** [.51, .69]	
11. Urban Population	59.07	22.57	-.50** [-.61, -.38]	-.41** [-.53, -.28]	-.42** [-.56, -.25]	.79** [.72, .84]	.67** [.54, .77]	.78** [.69, .85]	.44** [.30, .55]	-.18* [-.32, -.02]	-.35** [-.47, -.23]	-.69** [-.76, -.61]

**Table S2.** Means, standard deviations, and correlations with confidence intervals between national religiosity, national economic development, and the national covariates



Control variable included in model	GWP					IPP					WVS				
	beta	95% CI	% mediated	N	Nations	beta	95% CI	% mediated	N	Nations	beta	95% CI	% mediated	N	Nations
Individualism	.022	[.017, .027]	45.9%	1,374,821	136	.014	[.009, .020]	44.1%	1,441,228	76	.012	[.007, .018]	-33.2%	246,777	82
Income Inequality	.012	[.009, .014]	23.4%	1,415,345	136	.020	[.015, .024]	65.0%	1,473,708	73	.017	[.011, .023]	-91.8%	254,889	81
Pathogen Prevalence	.015	[.012, .019]	44.6%	1,554,203	154	.015	[.010, .020]	51.2%	1,499,736	85	.008	[.004, .012]	-15.4%	273,753	91
Employment in Agriculture	.016	[.013, .020]	100.0%	1,557,071	154	.013	[.009, .018]	72.3%	1,497,666	83	.014	[.008, .020]	-38.9%	271,963	90
Urban Population	.017	[.014, .021]	44.3%	1,557,071	154	.015	[.010, .019]	53.4%	1,499,377	84	.014	[.008, .021]	-88.4%	271,963	90

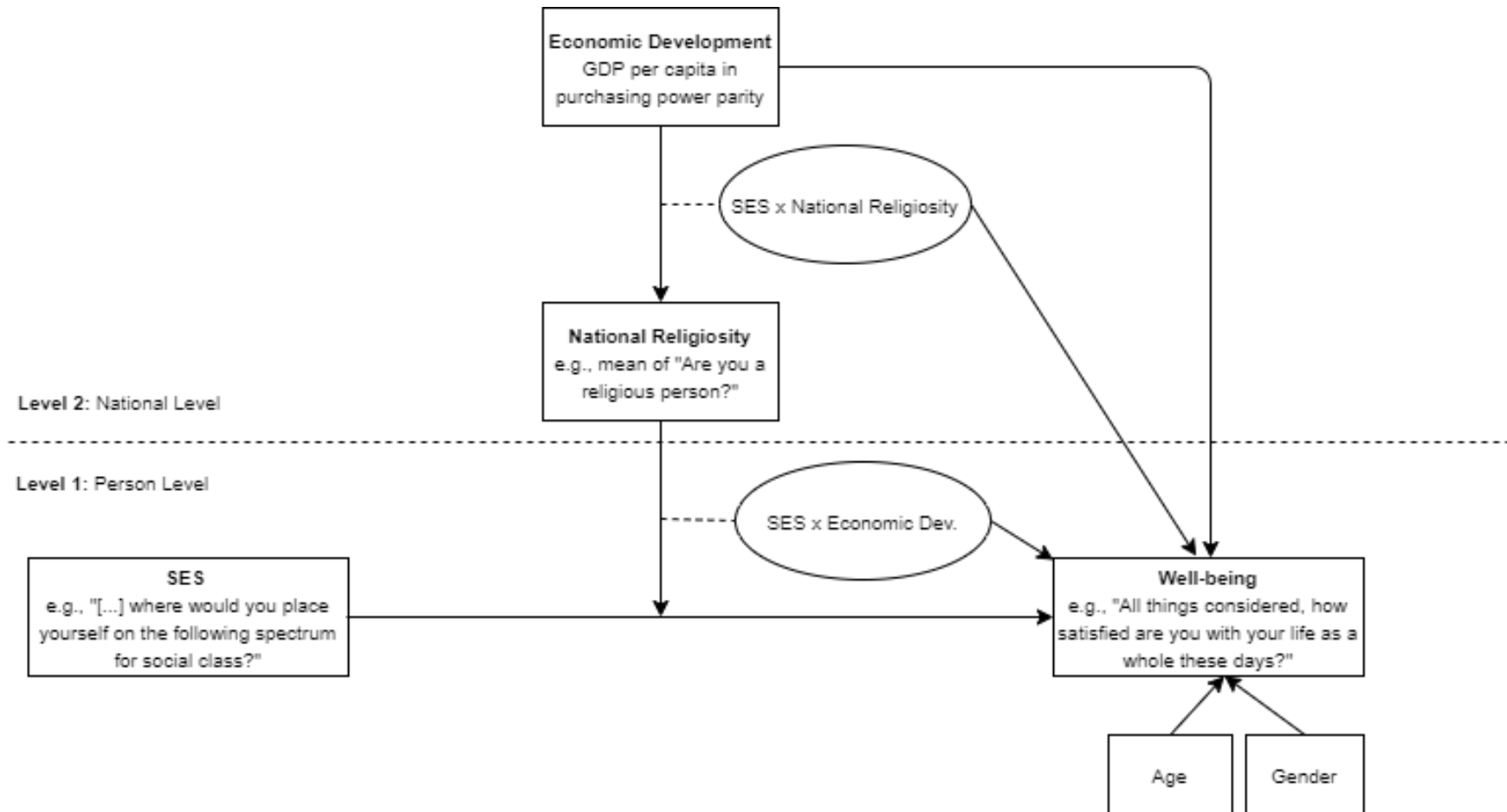
**Table S3.** Indirect effect of main-text model 4 when including covariates. Presented are estimates for the mediation effect of national religiosity when including various covariates, 95% Confidence Intervals, percentage mediated, final number of participants.

	GWP				IPP			
	Positive Emotions		Negative Emotions		Anxiety		Depression	
	<i>beta</i>	95% CI	<i>beta</i>	95% CI	<i>beta</i>	95% CI	<i>beta</i>	95% CI
Intercept	-.024	[-.061, .014]	-.117	[-.148, -.086]	-.211	[-.237, -.184]	-.109	[-.135, -.084]
SES	.174	[.164, .183]	-.204	[-.214, -.194]	-.072	[-.079, -.066]	-.043	[-.049, -.038]
Religiosity	.046	[-.002, .093]	.085	[.046, .125]	-.008	[-.040, .024]	.027	[-.003, .058]
Log10 GDP per capita	.103	[.055, .151]	.020	[-.020, .059]	.014	[-.018, .046]	.022	[-.009, .052]
Age	-.109	[-.110, -.107]	.036	[.034, .037]	-.072	[-.073, -.071]	-.116	[-.117, -.115]
Gender	.018	[.015, .021]	.085	[.082, .088]	.388	[.386, .390]	.217	[.214, .219]
SES x Religiosity	-.018	[-.030, -.006]	.008	[-.005, .020]	.022	[.014, .030]	.014	[.008, .021]
SES x Log10 GDP per capita	.012	[-2e-04, .024]	-.034	[-.047, -.022]	-.005	[-.013, .004]	-.012	[-.020, -.004]

**Table S4.** Estimates and 95% Confidence Intervals for main text model 3 when using alternative well-being indicators in the GWP and IPP. The WVS did not include any additional indicators of well-being besides the one used in the main text results. The final sample sizes for the models including alternative well-being indicators are reported in Table S5.

<b>Alternative Well-Being Indicators</b>	<b>beta</b>	<b>95% CI</b>	<b>% mediated</b>	<b>N</b>	<b>Nations</b>
GWP: Positive Emotions	.009	[.007, .011]	41.8%	1,545,102	156
GWP: Negative Emotions	-.003	[-.005, -.001]	9.3%	1,526,879	156
IPP: Anxiety	-.015	[-.019, -.011]	100.0%	3,169,763	116
IPP: Depression	-.010	[-.013, -.007]	50.8%	3,169,576	116

**Table S5.** Estimates, 95% Confidence Intervals, and percentage mediated for the results of main text model 4 when using alternative well-being indicators in the GWP and IPP. The WVS did not include any additional indicators of well-being besides the one used in the main text results.



**Figure S1.** Mixed Effects Mediated Moderation Model (model 4). Statistical model to calculate the portion of the cross-level interaction (moderation) effect of economic development that is mediated by national religiosity.

**SI References**

1. T. M. Entringer, *et al.*, Big Five facets and religiosity: Three large-scale, cross-cultural, theory-driven, and process-attentive tests. *J. Pers. Soc. Psychol.* (2020) <https://doi.org/10.1037/pspp0000364>.
2. J. E. Gebauer, *et al.*, The well-being benefits of person-culture match are contingent on basic personality traits. *Psychol. Sci.* **31**, 1283–1293 (2020).