

Online Supplement for *Worldview-motivated rejection of science and the norms of science*

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Study 1: Materials and data summary

Table S1 provides a verbatim list of the 39 core survey items together with brief labels (e.g., *HumConsc* for “Humans are the only living beings who are conscious”) that are used for presentation of the results.

Table S2 shows the number and percentages of all responses before reverse-scoring for all items. Table S1 provides an explanation of the short item labels. Composite scores for each construct were then formed by averaging responses across all relevant items after reverse-scoring where necessary. Larger numbers refer to greater endorsement of a construct. Figure S1 shows the distributions of the average scores for the 7 constructs.

Study 2: Materials and data summary

All core items and attention filters used a 7-point response scale ranging from “Strongly disagree” to “Strongly agree”, with the exception of one of the conservatism items (*POL_CONS5*), which used an 11-point scale. Table S3 shows the full text of the items and their short labels.

Table S4 shows the number and percentages of responses before reverse-scoring (item labels are explained in Table S3). Composite scores were formed by averaging responses for each construct after reverse-scoring where necessary. Figure S2 shows the distributions of the average (composite) scores for the 6 constructs.

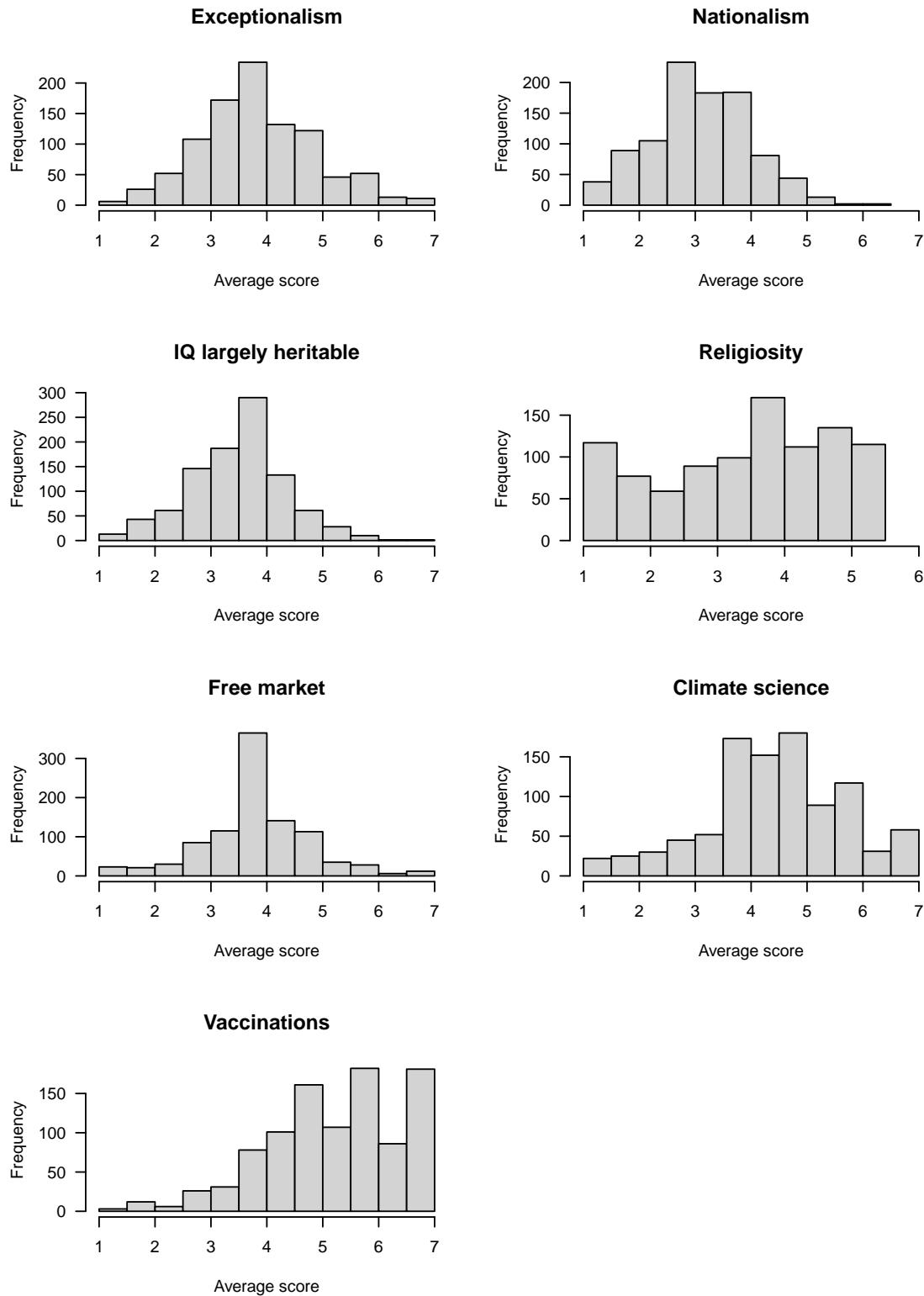


Figure S1. Frequency distributions of the composite scores for all 7 constructs in Study 1, formed by averaging across items within each construct after reverse scoring. Each histogram shows the distribution across subjects of the composite score. The religiosity construct is measured by 4 items with 5-point scales (see Table S1), and one item with a 7-point scale ranging from “Strongly agree” to “Strongly disagree” with “Neither agree nor disagree” at the midpoint. All items for all other constructs used the same 7-point scale.

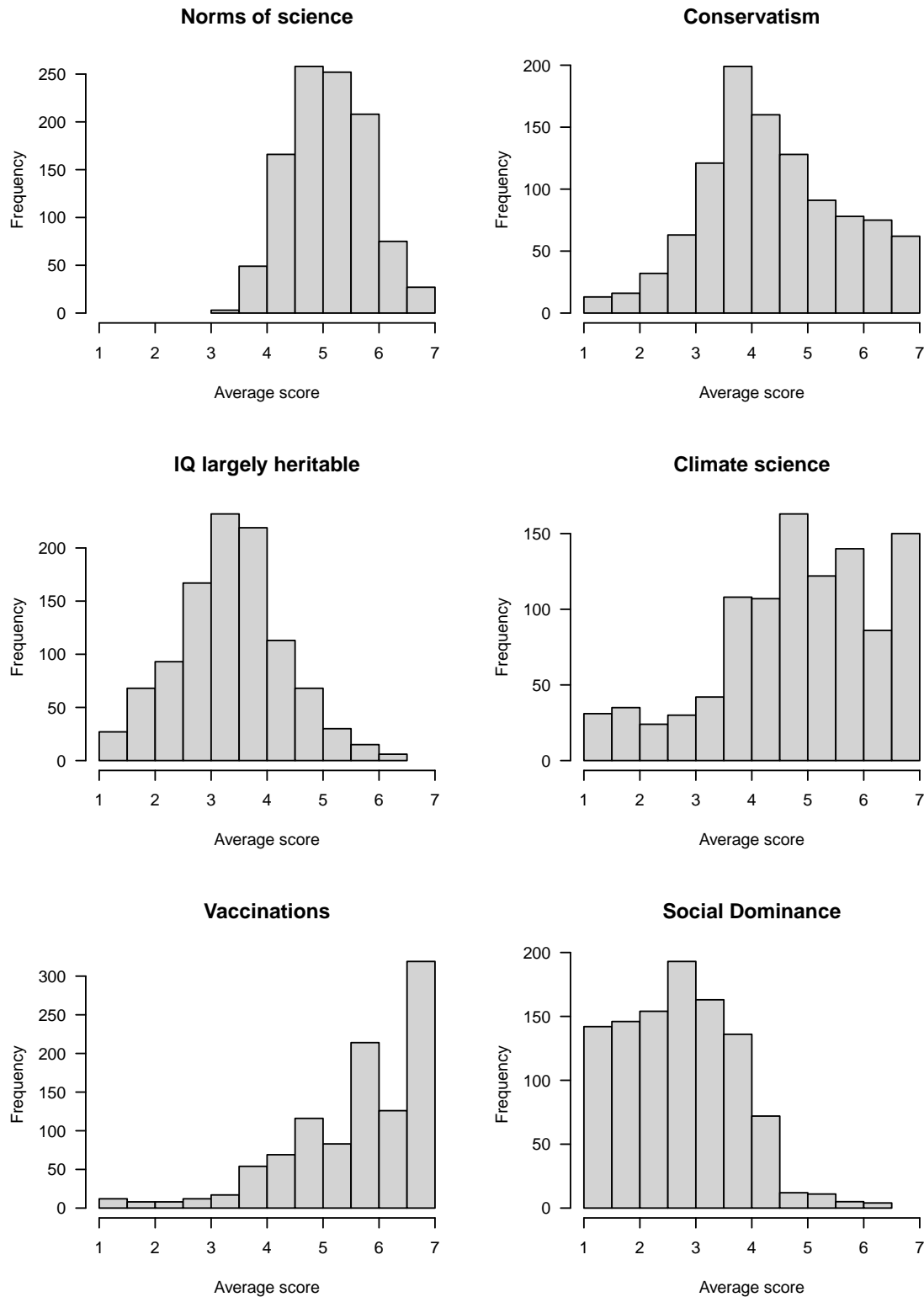


Figure S2. Frequency distributions of the composite scores for all 6 constructs in Study 2, formed by averaging across items within each construct after reverse scoring. Each histogram shows the distribution across subjects of the composite score. All items used a 7-point scale ranging from “Strongly agree” to “Strongly disagree” with “Neither agree nor disagree” at the midpoint. Item *POL_CONS5* is not included in the composite because it used an 11-point “slider” scale.

Table S1:: Items used in the survey in Study 1 and their short names

Item name	Item (R = reverse scored)
1. Exceptionalism	
<i>HumConsc</i>	Humans are the only living beings who are conscious
<i>EarthIntel</i>	The Earth is the only planet in the universe that provides the conditions for intelligent life
<i>HumRational</i>	Humans are inherently rational
<i>HumJust1</i>	Humans are just one of many million species of animals and we share most of our genes with other animals (R)
<i>EarthHierar</i>	There is a natural hierarchy of life forms on Earth and humans are on the top of that hierarchy
2. Nationalism	
<i>IntBigProb</i>	Some problems are so big they can only be solved by all countries working together (R)
<i>IntEnjoy</i>	I enjoy talking to people from all around the world (R)
<i>Allegiance</i>	Every human must have an allegiance to one country and one country only
<i>IntOwn</i>	I would prefer to go on holiday with people from my own country rather than with foreigners
<i>IntWeb</i>	A good thing about the internet is that we can get to know people from foreign countries (R)
<i>IntNoMix</i>	People coming from different cultures usually do not work together well
<i>IntCharity</i>	I would rather donate to a charity working in my own country than to a charity that helps people in poor developing countries
3. IQ Heritable	
<i>IQGen</i>	When people differ in intelligence, it is mostly due to differences in their genetic endowment (R)
<i>IQAdopt</i>	When a child is adopted into a new family, its intelligence does not depend on the intelligence of its birth parents
<i>IQEd</i>	Intelligence is not inherited, it is acquired through education
<i>IQUpbring</i>	A person's upbringing is more important to their intelligence than their genetic inheritance
<i>IQTwins</i>	Identical twins separated shortly after birth and reared in different family environments will end up having similar intelligence (R)
<i>IQParents</i>	If you know the intelligence of parents, you can make a good guess about the intelligence of their children even if the children have been brought up by others (R)
<i>IQStim</i>	With a rich stimulating environment every healthy child can grow up to be smart enough to learn any profession
4. Religiosity	

<i>RelComf</i>	Do you agree with the following statement? “Religion gives me a great amount of comfort and security in my life.”
<i>RelFreq</i>	During the past year, how often have you experienced a feeling of religious reverence or devotion? (Almost daily–Frequently–Sometimes–Rarely–Never)
<i>RelInfl</i>	How much influence would you say religion has on the way you choose to act and the way you choose to spend your time each day? (No influence–A small influence–Some influence–A fair amount of influence–A large influence)
<i>RelAdv</i>	When you have a serious personal problem how often do you take religious advice or teaching into consideration? (Almost always–Usually–Sometimes–Rarely–Never)
<i>PrayComf</i>	Which of the following best describes your practice of prayer or religious meditation? (Prayer is a regular part of my daily life – I usually pray in times of stress or need but rarely at any other time – I pray only during formal ceremonies – Prayer has little importance in my life – I never pray)

5. Free market

<i>FMUnresBest</i>	An economic system based on free markets unrestrained by government interference automatically works best to meet human needs.
<i>FMLimitSocial</i>	The free market system may be efficient for resource allocation but it is limited in its capacity to promote social justice. (R)
<i>FMMoreImp</i>	The preservation of the free market system is more important than localized environmental concerns.
<i>FMThreatEnv</i>	Free and unregulated markets pose important threats to sustainable development. (R)
<i>FMUnsustain</i>	The free market system is likely to promote unsustainable consumption. (R)

6. Climate science

<i>CNatFluct</i>	I believe that the climate is always changing and what we are currently observing is just natural fluctuation. (R)
<i>CdueGHG</i>	I believe that most of the warming over the last 50 years is due to the increase in greenhouse gas concentrations.
<i>CseriousDam</i>	I believe that the burning of fossil fuels over the last 50 years has caused serious damage to the planet’s climate.
<i>CO2causesCC</i>	Human CO2 emissions cause climate change.
<i>HumansInsign</i>	Humans are too insignificant to have an appreciable impact on global temperature. (R)

7. Vaccinations

<i>VaxSafe</i>	I believe that vaccines are a safe and reliable way to help avert the spread of preventable diseases.
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<i>VaxNegSide</i>	I believe that vaccines have negative side effects that outweigh the benefits of vaccination for children. (R)
<i>VaxTested</i>	Vaccines are thoroughly tested in the laboratory and wouldn't be made available to the public unless it was known that they are safe.
<i>VaxRisky</i>	The risk of vaccinations to maim and kill children outweighs their health benefits. (R)
<i>VaxContrib</i>	Vaccinations are one of the most significant contributions to public health.

Note: Items marked with * use a different response scale, as indicated in table entries. All other items use 7-point scale from *Strongly disagree* to *Strongly agree*, with center point *Neither agree nor disagree*.

Table S2:: Number of responses (percentages) for each response option for all survey items in Study 1

Item name	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Somewhat disagree</i>		<i>Neither agree nor disagree</i>		<i>Somewhat agree</i>		<i>Agree</i>		<i>Strongly agree</i>	
1. Human exceptionalism														
HumConsc	254	(26)	264	(27)	143	(15)	119	(12)	64	(7)	77	(8)	53	(5)
EarthIntel	188	(19)	214	(22)	125	(13)	192	(20)	80	(8)	97	(10)	78	(8)
HumRational	44	(5)	79	(8)	128	(13)	179	(18)	279	(29)	204	(21)	61	(6)
HumJust1	59	(6)	59	(6)	72	(7)	165	(17)	231	(24)	245	(25)	143	(15)
EarthHierar	22	(2)	27	(3)	40	(4)	119	(12)	187	(19)	321	(33)	258	(26)
2. Nationalism														
IntBigProb	18	(2)	15	(2)	25	(3)	54	(6)	159	(16)	332	(34)	371	(38)
IntEnjoy	13	(1)	17	(2)	25	(3)	129	(13)	166	(17)	307	(32)	317	(33)
Allegiance	143	(15)	216	(22)	164	(17)	165	(17)	109	(11)	114	(12)	63	(6)
IntOwn	71	(7)	101	(10)	106	(11)	308	(32)	145	(15)	155	(16)	88	(9)
IntWeb	7	(1)	13	(1)	17	(2)	99	(10)	190	(20)	362	(37)	286	(29)
IntNoMix	146	(15)	249	(26)	238	(24)	178	(18)	92	(9)	50	(5)	21	(2)
IntCharity	75	(8)	109	(11)	91	(9)	223	(23)	165	(17)	156	(16)	155	(16)

Item name	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Somewhat disagree</i>		<i>Neither agree nor disagree</i>		<i>Somewhat agree</i>		<i>Agree</i>		<i>Strongly agree</i>	
3. IQ Heritable														
IQGen	120	(12)	198	(20)	175	(18)	199	(20)	155	(16)	94	(10)	33	(3)
IQAdopt	40	(4)	107	(11)	214	(22)	189	(19)	163	(17)	174	(18)	87	(9)
IQEd	24	(2)	47	(5)	171	(18)	132	(14)	248	(25)	204	(21)	148	(15)
IQUpbring	15	(2)	39	(4)	87	(9)	153	(16)	251	(26)	277	(28)	152	(16)
IQTwins	30	(3)	77	(8)	143	(15)	274	(28)	228	(23)	174	(18)	48	(5)
IQParents	56	(6)	112	(11)	185	(19)	234	(24)	255	(26)	98	(10)	34	(3)
IQStim	20	(2)	49	(5)	109	(11)	94	(10)	231	(24)	277	(28)	194	(20)
4. Religiosity *														
RelComf	119	(12)	72	(7)	68	(7)	132	(14)	160	(16)	204	(21)	219	(22)
RelFreq	141	(14)	219	(22)	262	(27)	188	(19)	164	(17)				
RelInfl	201	(21)	168	(17)	220	(23)	208	(21)	177	(18)				
RelAdv	161	(17)	198	(20)	260	(27)	184	(19)	171	(18)				
PrayComf	398	(41)	251	(26)	74	(8)	101	(10)	150	(15)				
5. Free market														
FMUnresBest	45	(5)	62	(6)	86	(9)	292	(30)	220	(23)	183	(19)	86	(9)
FMLimitSocial	18	(2)	38	(4)	69	(7)	326	(33)	255	(26)	206	(21)	62	(6)
FMMoreImp	62	(6)	110	(11)	159	(16)	310	(32)	176	(18)	104	(11)	53	(5)
FMThreatEnv	40	(4)	66	(7)	131	(13)	279	(29)	251	(26)	141	(14)	66	(7)
FMUnsustain	35	(4)	94	(10)	148	(15)	334	(34)	188	(19)	109	(11)	66	(7)

Item name	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Somewhat disagree</i>		<i>Neither agree nor disagree</i>		<i>Somewhat agree</i>		<i>Agree</i>		<i>Strongly agree</i>	
6. Climate science														
CNatFluct	76	(8)	101	(10)	140	(14)	100	(10)	205	(21)	220	(23)	132	(14)
CdueGHG	40	(4)	60	(6)	87	(9)	205	(21)	231	(24)	223	(23)	128	(13)
CseriousDam	40	(4)	53	(5)	69	(7)	130	(13)	270	(28)	231	(24)	181	(19)
CO2causesCC	59	(6)	77	(8)	108	(11)	240	(25)	206	(21)	173	(18)	111	(11)
HumansInsign	168	(17)	197	(20)	197	(20)	143	(15)	121	(12)	89	(9)	59	(6)
7. Vaccinations														
VaxSafe	26	(3)	26	(3)	51	(5)	67	(7)	157	(16)	286	(29)	361	(37)
VaxNegSide	252	(26)	238	(24)	130	(13)	119	(12)	102	(10)	82	(8)	51	(5)
VaxTested	29	(3)	35	(4)	83	(9)	136	(14)	221	(23)	300	(31)	170	(17)
VaxRisky	255	(26)	190	(20)	139	(14)	188	(19)	92	(9)	61	(6)	49	(5)
VaxContrib	13	(1)	23	(2)	36	(4)	112	(11)	195	(20)	295	(30)	300	(31)

Note: Items marked with * use a different response scale; see Table S1. Item names are explained in Table S1.

Table S3:: Items used in the survey in Study 2 and their short names

Item name	Item (R = reverse scored)
1. Norms of Science	
<i>NOR_COM1</i>	Scientific findings should be available to everybody everywhere in the world
<i>NOR_COM2</i>	Scientists should share their knowledge freely with everyone interested
<i>NOR_COM3</i>	The results of scientific research in our country should be protected better so that they cannot be used by our adversaries (R)
<i>NOR_COM4</i>	An important goal of science should be to ensure the technological superiority of our military (R)
<i>NOR_DIS1</i>	Scientists should put evidence ahead of their own views
<i>NOR_DIS2</i>	Scientists should investigate only what they judge to be scientifically important, regardless of whether it leads to financial gain for them or their employers
<i>NOR_DIS3</i>	The main goal of science should be to strengthen the economy by developing better technology (R)
<i>NOR_DIS4</i>	The main responsibility of a scientist should be to make their university or employer more competitive (R)
<i>NOR_SCEP1</i>	Scientists should always keep an open mind and be prepared to change their conclusions if new evidence comes along
<i>NOR_SCEP2</i>	For a scientist it should only be a matter of last resort to admit that they are wrong (R)
<i>NOR_UNIV1</i>	The truth of a scientific discovery does not depend on the nationality, gender, race, or faith of the scientist making it
<i>NOR_UNIV2</i>	Scientific knowledge should hold true for everybody all over the world
<i>NOR_UNIV3</i>	A scientific statement that is true in one country can be false in another (R)
<i>NOR_UNIV4</i>	One should not believe a scientific discovery that contradicts one's faith (R)
2. Conservatism	
<i>POL_CONS1</i>	People are better off in a free market economy
<i>POL_CONS2</i>	This country would have many fewer problems if there were more emphasis on traditional family values
<i>POL_CONS3</i>	The world is always changing and we should adjust our views of moral behavior to those changes (R)
<i>POL_CONS4</i>	Socialism has many advantages over Capitalism (R)
<i>POL_CONS5 *</i>	People sometimes use the labels 'left' or 'left-wing' and 'right' or 'right-wing' to describe political parties, party leaders, and political ideas. Using the 0 to 10 scale below, where the end marked 0 means left and the end marked 10 means right, where would you place yourself on this scale?
3. IQ Heritable	

<i>IQ_GEN1</i>	When people differ in intelligence, it is mostly due to differences in their genes
<i>IQ_GEN2</i>	Intelligence is not inherited but is acquired through education (R)
<i>IQ_GEN3</i>	Some children are born brighter than others, and that is unlikely to change during their life
<i>IQ_GEN4</i>	A person's upbringing is more important to their intelligence than their genetic inheritance (R)
<i>IQ_GEN5</i>	With a rich stimulating environment every healthy child can grow up to be smart enough to learn any profession (R)
<i>IQ_GEN6</i>	Smart parents will usually have smart children, even if the children are raised by other people
4. Climate science: See Table S1	
5. Vaccinations: See Table S1	
6. Social Dominance Orientation	
<i>SDO1</i>	An ideal society requires some groups to be on top and others to be on the bottom
<i>SDO2</i>	Some groups of people are simply inferior to other groups in society
<i>SDO3</i>	No one group should dominate in society (R)
<i>SDO4</i>	Groups of society at the bottom are just as deserving as groups at the top (R)
<i>SDO5</i>	Equality between groups in society should not be our primary goal
<i>SDO6</i>	It is unjust to try to make groups in society equal
<i>SDO7</i>	We should do what we can to equalize conditions for different groups in society (R)
<i>SDO8</i>	We should work to give all groups in society an equal chance to succeed (R)

Note: Item marked with * uses a different response scale, as indicated in table entry. All other items use 7-point scale from *Strongly disagree* to *Strongly agree*, with center point *Neither agree nor disagree*.

Table S4:: Number of responses (percentages) for each response option for all survey items in Study 2

Item name	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Somewhat disagree</i>		<i>Neither agree nor disagree</i>		<i>Somewhat agree</i>		<i>Agree</i>		<i>Strongly agree</i>	
1. Norms of science														
NOR_COM1	7	(1)	24	(2)	57	(5)	91	(9)	179	(17)	303	(29)	377	(36)
NOR_COM2	14	(1)	17	(2)	62	(6)	97	(9)	199	(19)	336	(32)	313	(30)
NOR_COM3	51	(5)	68	(7)	109	(11)	241	(23)	203	(20)	207	(20)	159	(15)
NOR_COM4	102	(10)	117	(11)	114	(11)	224	(22)	214	(21)	156	(15)	111	(11)
NOR_DIS1	4	(0)	8	(1)	13	(1)	61	(6)	113	(11)	337	(32)	502	(48)
NOR_DIS2	44	(4)	87	(8)	106	(10)	197	(19)	171	(16)	233	(22)	200	(19)
NOR_DIS3	59	(6)	104	(10)	151	(15)	206	(20)	214	(21)	183	(18)	121	(12)
NOR_DIS4	265	(26)	252	(24)	178	(17)	177	(17)	87	(8)	52	(5)	27	(3)
NOR_SCEP1	1	(0)	2	(0)	2	(0)	34	(3)	72	(7)	331	(32)	596	(57)
NOR_SCEP2	447	(43)	279	(27)	100	(10)	116	(11)	46	(4)	35	(3)	15	(1)
NOR_UNIV1	8	(1)	11	(1)	22	(2)	55	(5)	70	(7)	281	(27)	591	(57)
NOR_UNIV2	7	(1)	19	(2)	25	(2)	134	(13)	176	(17)	344	(33)	333	(32)
NOR_UNIV3	207	(20)	182	(18)	119	(11)	192	(18)	137	(13)	149	(14)	52	(5)
NOR_UNIV4	276	(27)	204	(20)	141	(14)	222	(21)	74	(7)	65	(6)	56	(5)

Item name	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Somewhat disagree</i>		<i>Neither agree nor disagree</i>		<i>Somewhat agree</i>		<i>Agree</i>		<i>Strongly agree</i>	
2. Conservatism														
POL_CONS1	21	(2)	23	(2)	41	(4)	333	(32)	188	(18)	226	(22)	206	(20)
POL_CONS2	76	(7)	79	(8)	62	(6)	162	(16)	168	(16)	226	(22)	265	(26)
POL_CONS3	111	(11)	93	(9)	116	(11)	143	(14)	225	(22)	219	(21)	131	(13)
POL_CONS4	213	(21)	119	(11)	81	(8)	315	(30)	146	(14)	101	(10)	63	(6)
3. IQ Heritable														
IQ_GEN1	132	(13)	184	(18)	177	(17)	237	(23)	196	(19)	79	(8)	33	(3)
IQ_GEN2	24	(2)	71	(7)	130	(13)	185	(18)	275	(26)	206	(20)	147	(14)
IQ_GEN3	62	(6)	108	(10)	163	(16)	213	(21)	268	(26)	167	(16)	57	(5)
IQ_GEN4	14	(1)	50	(5)	102	(10)	221	(21)	270	(26)	238	(23)	143	(14)
IQ_GEN5	36	(3)	64	(6)	95	(9)	109	(11)	220	(21)	290	(28)	224	(22)
IQ_GEN6	91	(9)	168	(16)	172	(17)	311	(30)	181	(17)	92	(9)	23	(2)
4. Climate science														
CNatFluct	160	(15)	145	(14)	170	(16)	142	(14)	156	(15)	145	(14)	120	(12)
CdueGHG	49	(5)	62	(6)	53	(5)	196	(19)	208	(20)	261	(25)	209	(20)
CseriousDam	48	(5)	48	(5)	50	(5)	143	(14)	197	(19)	249	(24)	303	(29)
CO2causesCC	73	(7)	71	(7)	73	(7)	232	(22)	195	(19)	195	(19)	199	(19)
HumansInsign	367	(35)	207	(20)	147	(14)	148	(14)	68	(7)	61	(6)	40	(4)

Item name	<i>Strongly disagree</i>		<i>Disagree</i>		<i>Somewhat disagree</i>		<i>Neither agree nor disagree</i>		<i>Somewhat agree</i>		<i>Agree</i>		<i>Strongly agree</i>	
5. Vaccinations														
VaxSafe	20	(2)	14	(1)	27	(3)	63	(6)	122	(12)	267	(26)	525	(51)
VaxNegSide	453	(44)	224	(22)	97	(9)	115	(11)	73	(7)	39	(4)	37	(4)
VaxTested	33	(3)	26	(3)	52	(5)	129	(12)	165	(16)	329	(32)	304	(29)
VaxRisky	409	(39)	185	(18)	109	(11)	155	(15)	51	(5)	58	(6)	71	(7)
VaxContrib	19	(2)	24	(2)	34	(3)	76	(7)	152	(15)	297	(29)	436	(42)
6. Social Dominance Orientation														
SDO1	182	(18)	171	(16)	155	(15)	245	(24)	163	(16)	93	(9)	29	(3)
SDO2	344	(33)	208	(20)	89	(9)	163	(16)	130	(13)	69	(7)	35	(3)
SDO3	14	(1)	14	(1)	35	(3)	95	(9)	110	(11)	320	(31)	450	(43)
SDO4	11	(1)	13	(1)	37	(4)	104	(10)	144	(14)	343	(33)	386	(37)
SDO5	142	(14)	202	(19)	159	(15)	187	(18)	149	(14)	134	(13)	65	(6)
SDO6	219	(21)	217	(21)	146	(14)	198	(19)	104	(10)	95	(9)	59	(6)
SDO7	23	(2)	33	(3)	55	(5)	147	(14)	248	(24)	302	(29)	230	(22)
SDO8	8	(1)	7	(1)	25	(2)	69	(7)	151	(15)	346	(33)	432	(42)

Item names are explained in Table S3. Item POL_CONS5, which used a 0–11 response scale, is not shown.