

Supplementary Appendix

Moral Support: How Moral Values Shape Foreign Policy Attitudes

Joshua D. Kertzer Kathleen E. Powers Brian C. Rathbun Ravi Iyer
jkertzer@fas.harvard.edu powers.276@osu.edu brathbun@usc.edu raviier@usc.edu

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1 Foreign policy attitude instrumentation

All items have seven-point Likert response items ranging from “Strongly disagree” to “Strongly Agree”. To mitigate survey response effects, the 20 items are presented to participants in random order.

1.1 Foreign policy batteries

Cooperative internationalism ($\alpha = 0.88$)

1. The United States needs to cooperate more with the United Nations.
2. It is essential for the United States to work with other nations to solve problems such as over-population, hunger, and pollution.
3. Promoting and defending human rights in other countries is of utmost importance.
4. Helping to improve the standard of living in less developed countries is of utmost importance.
5. Protecting the global environment is of utmost importance.

Militant internationalism ($\alpha = 0.84$)

1. The United States should take all steps including the use of force to prevent aggression by any expansionist power
2. Rather than simply countering our opponents' thrusts, it is necessary to strike at the heart of an opponent's power.
3. Going to war is unfortunate but sometimes the only solution to international problems.
4. There is considerable validity in the domino theory that when one nation falls to communism, others nearby will soon follow a similar path.
5. American military strength is not the best way to ensure world peace. (*Reverse-coded*)
6. The United States must demonstrate its resolve so that others do not take advantage of it.

Isolationism ($\alpha = 0.78$)

1. The U.S. should mind its own business internationally and let other countries get along the best they can on their own.
2. We should not think so much in international terms but concentrate more on our own national problems.

3. The U.S. needs to play an active role in solving conflicts around the world. (*Reverse-coded*)
4. America's conception of its leadership role in the world must be scaled down.
5. Our allies are perfectly capable of defending themselves and they can afford it, thus allowing the United States to focus on internal rather than external threats to its well-being.

1.2 Policy-specific questions

1. All things considered, I approve of the decision of the U.S. and its allies to conduct military air strikes in Libya.
2. I would not approve of the use of U.S. forces if we were certain that Iran had produced a nuclear weapon. (*Reverse-coded*)
3. I approve of the U.S. decision to intervene in Iraq.
4. The Kyoto Protocol, the global treaty designed to curb greenhouse gas emissions, is set to expire in 2012. I would approve of the United States working closely with other nations to create a new international treaty to fight global warming.

2 Moral Foundations Instrumentation

Each moral foundation is measured with six items. The first three items for each foundation in the list below are preceded by question "When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?" These items have 6 point Likert responses ranging from "not at all relevant" to "extremely relevant." The second three items for each foundation have 6 point Likert responses ranging from "Strongly disagree" to "Strongly agree."

2.1 Harm/Care

1. Whether or not someone suffered emotionally
2. Whether or not someone cared for someone weak or vulnerable
3. Whether or not someone was cruel
4. Compassion for those who are suffering is the most crucial virtue.
5. One of the worst things a person could do is hurt a defenseless animal.
6. It can never be right to kill a human being.

2.2 Fairness/Reciprocity

1. Whether or not some people were treated differently than others
2. Whether or not someone acted unfairly
3. Whether or not someone was denied his or her rights
4. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.
5. Justice is the most important requirement for a society.
6. I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.

2.3 Ingroup/Loyalty

1. Whether or not someone's action showed love for his or her country
2. Whether or not someone did something to betray his or her group
3. Whether or not someone showed a lack of loyalty
4. I am proud of my country's history.
5. People should be loyal to their family members, even when they have done something wrong.
6. It is more important to be a team player than to express oneself.

2.4 Authority/Respect

1. Whether or not someone showed a lack of respect for authority
2. Whether or not someone conformed to the traditions of society
3. Whether or not an action caused chaos or disorder
4. Respect for authority is something all children need to learn.
5. Men and women each have different roles to play in society.
6. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

2.5 Purity/Sanctity

1. Whether or not someone violated standards of purity and decency
2. Whether or not someone did something disgusting
3. Whether or not someone acted in a way that God would approve of
4. People should not do things that are disgusting, even if no one is harmed.
5. I would call some acts wrong on the grounds that they are unnatural.
6. Chastity is an important and valuable virtue.

3 Sample characteristics

Table 1 below, compares the demographics of the American population with the demographics of our survey sample, which is generally more educated, younger, and more male than a representative sample would be. To examine how the opt-in nature of our survey sample affects our results, we conduct a number of tests, described in detail below.

3.1 Survey weighting

First, we employ entropy balancing using the entropy package in Stata to reweight the data to more closely match demographic characteristics from the national population, trimming the weights to reduce the impact of extreme values (Hainmueller, 2012; Hainmueller and Xu, 2013).¹ Table 2 compares weighted and unweighted versions of the basic foreign policy battery models estimated in Table 1 in the main text, while Table 3 does the same for the specific policy attitudes.² These tables show that the results do not substantively change when weights are introduced to either set of models. We include these weighted analyses not to claim that the inclusion of weights turns a non-probability sample into a probability one – post-stratifying with demographics has been found to have mixed effects with data gathered from non-probability samples (Yeager et al., 2011) – but rather, to show that the inclusion of the weights does not substantively change the results.

Table 1: Survey sample characteristics

Characteristic	Adult Population	Unweighted Sample	Weighted Sample
Male	0.492	0.745	0.561
Age 18-24	0.130	0.181	0.159
Age 25-44	0.350	0.413	0.381
Age 45-64	0.347	0.307	0.321
Age 65+	0.171	0.091	0.137
Less than High School	0.133	0.025	0.101
High School	0.304	0.023	0.131
Some college/university	0.196	0.241	0.267
College/university	0.271	0.354	0.369
Grad/Prof school	0.096	0.334	0.131

Note: weights are trimmed at ~98th percentile

Although the inclusion of weights shows that our findings are robust to the demographic composition of the sample, because of the opt-in nature of the survey, our results could still differ from a

¹The trimming makes the weighted sample slightly less representative than a sample weighted with untrimmed weights would be, but prevents outlying observations from exerting too much leverage on the results. Weights were trimmed with values above 5, which is between the 97th and 98th percentile.

²Table results are generated using version 4.5.3 of the stargazer package in R (Hlavac, 2013).

Table 2: Foreign policy batteries (weighted)

	Cooperative internationalism		Militant internationalism		Isolationism	
	(1)	(2)	(3)	(4)	(5)	(6)
Harm	0.604*** (0.039)	0.646*** (0.041)	-0.352*** (0.034)	-0.345*** (0.036)	-0.150*** (0.043)	-0.168*** (0.046)
Fairness	0.419*** (0.045)	0.374*** (0.050)	-0.122*** (0.039)	-0.158*** (0.043)	-0.019 (0.050)	0.055 (0.054)
Ingroup	-0.190*** (0.043)	-0.221*** (0.044)	0.360*** (0.038)	0.386*** (0.038)	-0.118** (0.049)	-0.174*** (0.049)
Authority	-0.082* (0.046)	-0.089* (0.046)	0.222*** (0.040)	0.250*** (0.040)	-0.141*** (0.051)	-0.098* (0.051)
Purity	-0.153*** (0.033)	-0.209*** (0.037)	0.182*** (0.029)	0.099*** (0.032)	0.019 (0.037)	0.078* (0.040)
Constant	0.117*** (0.034)	0.137*** (0.036)	0.459*** (0.030)	0.480*** (0.031)	0.760*** (0.038)	0.736*** (0.039)
N	1,163	1,163	1,159	1,159	1,154	1,154
R ²	0.491	0.446	0.489	0.426	0.046	0.039
Adjusted R ²	0.489	0.443	0.487	0.424	0.042	0.035

*p < .1; **p < .05; ***p < .01. All variables scaled from 0-1.

nationally representative sample for two other reasons. First, it is possible that by virtue of choosing to participate in a survey on foreign policy issues, our respondents have systematically different attitudes towards foreign policy than non-participants. Second, it is possible that by virtue of participating in surveys on the YourMorals platform, our respondents have systematically different attitudes towards moral values than the American population. We explore both possibilities, and what the implications would be for our findings, in turn.

Table 3: Policy attitudes (weighted)

	Iraq War		Iran Strike		Kyoto Protocol		Libya Intervention	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Harm	-0.236*** (0.046)	-0.267*** (0.045)	-0.250*** (0.053)	-0.246*** (0.054)	0.639*** (0.052)	0.723*** (0.052)	0.074 (0.054)	0.088 (0.055)
Fairness	-0.269*** (0.053)	-0.277*** (0.053)	-0.228*** (0.061)	-0.261*** (0.065)	0.565*** (0.060)	0.519*** (0.062)	0.166*** (0.062)	0.120* (0.066)
Ingroup	0.298*** (0.051)	0.309*** (0.047)	0.375*** (0.059)	0.374*** (0.058)	-0.257*** (0.058)	-0.363*** (0.056)	0.157*** (0.060)	0.234*** (0.059)
Authority	0.195*** (0.054)	0.228*** (0.050)	0.192*** (0.063)	0.183*** (0.061)	-0.099 (0.062)	-0.094 (0.058)	0.124* (0.064)	0.049 (0.062)
Purity	0.157*** (0.040)	0.132*** (0.040)	0.107** (0.046)	0.127*** (0.048)	-0.280*** (0.045)	-0.283*** (0.047)	-0.140*** (0.046)	-0.200*** (0.050)
Constant	0.409*** (0.040)	0.413*** (0.039)	0.583*** (0.046)	0.598*** (0.047)	0.128*** (0.046)	0.142*** (0.045)	0.309*** (0.047)	0.322*** (0.048)
Weights	N	Y	N	Y	N	Y	N	Y
N	1,175	1,175	1,175	1,175	1,177	1,177	1,175	1,175
R ²	0.297	0.304	0.240	0.223	0.450	0.448	0.030	0.032
Adjusted R ²	0.294	0.301	0.236	0.219	0.447	0.446	0.026	0.028

*p < .1; **p < .05; ***p < .01. All variables scaled from 0-1.

3.2 Do our respondents' foreign policy attitudes systematically differ from other samples?

Although differences in response format and question wording can complicate direct comparisons, many of our respondents' responses appear to reflect those found in nationally representative samples conducted around the same time. For example, the Chicago Council on Global Affairs' *Global Views 2012* poll asked respondents whether they thought the war in Iraq "was worth fighting, or not" – similar to our question asking whether participants approved of the US decision to intervene in Iraq.³ 67% of respondents in the Chicago Council poll said the Iraq War was not worth fighting and 32% said it was, while 68% of our respondents disapproved of the US decision to intervene in Iraq. Similarly, the Chicago Council poll included an item that measured attitudes towards the US role in NATO's military campaign against Qadaffi in Libya. Respondents were asked: "As you know, last the year the United States participated in a NATO military campaign against forces loyal to Qadaffi in Libya which was led by Britain and France, not the U.S. Do you think the United States should have: taken a leading role in the campaign, taken a major but not leading role, taken a minor role, not participated at all, or not sure?" In our policy attitude battery, we presented participants the item: "All things considered, I approve of the decision of the US and its allies to conduct military air strikes in Libya." In the Chicago Council poll, 48% of respondents wanted the US to take a leading or major role in the campaign, and 50% did not; among our respondents, 43% approved of the intervention in Libya, and 40% did not.

Relatedly, the Chicago Council also asked participants "Do you think it will be best for the future of the country if we take an active part in world affairs or if we stay out of world affairs?", which is similar to our isolationist item "The US needs to play an active role in solving conflicts around the world." In the Chicago Council data, 38% of respondents said the US should not play an active role, and 61% said the US should; in our data, 40% of our respondents disagreed with the US playing an active role, 42% agreed with the US playing an active role, and 18% of respondents were neutral (a response option not available in the Chicago Council survey). Likewise, the Chicago Council asks participants whether the US should participate in "a new international treaty to address climate change by reducing greenhouse gas emissions", similar to an item we presented to participants, asking if they "would approve of the United States working closely with other nations to create a new international treaty to fight global warming." 37% of our participants disapproved of the US being involved, while 31% of the Chicago Council participants said the same thing. Finally, the Chicago Council asked participants whether they agreed or disagreed with the statement "When dealing with international problems, the U.S. should be more willing to make decisions within the United Nations even if this means that the United States will sometimes have to go along with a policy that is not its first choice." This question is framed somewhat differently than our question about the United Nations – which measured partic-

³See [Smeltz 2012](#).

ipants' degree of agreement with "The United States needs to do more to cooperate with the United Nations" – but in the Chicago Council data, 43% of respondents disagreed with the US being more willing to make decisions within the UN, while in our data, 44% of respondents disagreed with the US needing to do more to cooperate with the UN. In short, although differences in response format and question wording suggest that caution should be taken to avoid reading too much into the comparisons, our respondents do not appear to display strikingly different foreign policy preferences than those detected in a nationally representative sample.

Even if our respondents do not systematically appear to differ in terms of what they think about foreign affairs, they may be systematically more interested in foreign affairs. Our survey does not have a measure of interest in foreign policy specifically, but we do have a measure of how attentive participants report being to politics more generally. In this respect, our respondents certainly appear to be more interested in politics than a nationally representative sample would be — 70.8% of our respondents reported being "very much interested" in politics. To explore how the relatively-engaged nature of our sample might affect our results, Table 4 replicates Table 1 from the manuscript, while comparing responses between those participants who are highly attentive to politics versus those who are not.⁴ Importantly, although the effect of fairness on isolationism changes sign between the low-attention and high-attention subsample, on the whole there do not appear to be any systematic differences across the results. On average, the coefficient estimates for the effects of moral values on CI amongst low attention participants are 0.035 points lower than in the full sample, while the effects amongst high attention participants are an average of 0.02 points higher than in the full sample. We see a similarly weak difference with respect to MI: on average, the coefficient estimates for the effects of moral values on MI amongst low attention participants are 0.033 points lower than in the full sample, while the effects amongst high attention participants are an average of 0.01 points higher. With isolationism, we see an effect that is similarly weak in magnitude, but in the opposite direction: on average, the effects of moral values on isolationism in the low attention sample is 0.054 points higher than in the full sample, while the effects amongst high attention participants are an average of 0.017 points lower. In other words, although our participants are indeed more interested in politics than a national sample would be, this difference does not appear to systematically affect the impact of moral values upon their foreign policy attitudes.

3.3 Do our respondents' moral values systematically differ from other samples?

Although our respondents' foreign policy attitudes do not appear to systematically differ from other samples, it is possible that their moral values do, such that we might witness different relationships

⁴Because of the skewed distribution, to boost statistical power we compare those participants who are "very much interested" in politics to those who are either "not much interested" or "somewhat interested."

Table 4: Impact of moral foundations on foreign policy orientations, by attention to politics

	Cooperative internationalism			Militant internationalism			Isolationism		
	Full Sample	Low Attn	High Attn	Full Sample	Low Attn	High Attn	Full Sample	Low Attn	High Attn
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Harm	0.603*** (0.040)	0.521*** (0.072)	0.638*** (0.048)	-0.325*** (0.035)	-0.192*** (0.059)	-0.365*** (0.043)	-0.171*** (0.045)	-0.310*** (0.077)	-0.119** (0.055)
Fairness	0.419*** (0.045)	0.341*** (0.086)	0.453*** (0.053)	-0.132*** (0.039)	-0.314*** (0.070)	-0.076 (0.048)	-0.004 (0.050)	0.297*** (0.091)	-0.104* (0.060)
Ingroup	-0.188*** (0.043)	-0.272*** (0.082)	-0.121** (0.051)	0.347*** (0.038)	0.339*** (0.068)	0.348*** (0.046)	-0.112** (0.049)	-0.008 (0.089)	-0.151*** (0.059)
Authority	-0.082* (0.046)	-0.040 (0.088)	-0.116** (0.054)	0.225*** (0.040)	0.209*** (0.072)	0.230*** (0.049)	-0.126** (0.051)	-0.112 (0.094)	-0.118* (0.062)
Purity	-0.155*** (0.033)	-0.127** (0.064)	-0.158*** (0.039)	0.188*** (0.029)	0.098* (0.052)	0.220*** (0.035)	0.021 (0.037)	0.011 (0.068)	0.017 (0.045)
Age	-0.0002 (0.0004)	-0.0004 (0.001)	0.0001 (0.0005)	-0.0001 (0.0003)	-0.0005 (0.001)	-0.0002 (0.0004)	-0.001* (0.0004)	-0.001 (0.001)	-0.001 (0.001)
Male	-0.011 (0.014)	-0.029 (0.023)	0.006 (0.017)	0.038*** (0.012)	0.033* (0.019)	0.037** (0.015)	-0.021 (0.015)	0.005 (0.025)	-0.033* (0.020)
High school	-0.047 (0.045)	-0.112 (0.084)	-0.034 (0.054)	-0.024 (0.039)	-0.005 (0.068)	-0.034 (0.049)	0.117** (0.050)	0.248*** (0.089)	0.070 (0.062)
Some college	0.011 (0.031)	-0.003 (0.056)	0.016 (0.038)	-0.001 (0.028)	-0.013 (0.045)	0.006 (0.035)	0.024 (0.035)	0.042 (0.060)	0.017 (0.044)
College/university	0.021 (0.031)	0.021 (0.055)	0.020 (0.038)	-0.014 (0.027)	-0.016 (0.044)	-0.011 (0.034)	0.011 (0.035)	0.029 (0.059)	0.006 (0.043)
Grad/prof school	0.051 (0.031)	0.021 (0.057)	0.062 (0.038)	-0.026 (0.028)	-0.059 (0.045)	-0.014 (0.034)	-0.013 (0.036)	0.035 (0.060)	-0.030 (0.044)
Constant	0.107** (0.047)	0.280*** (0.082)	0.005 (0.058)	0.442*** (0.041)	0.528*** (0.066)	0.423*** (0.052)	0.789*** (0.052)	0.607*** (0.088)	0.850*** (0.066)
N	1,163	341	814	1,159	338	814	1,154	340	806
R ²	0.497	0.408	0.534	0.495	0.437	0.522	0.063	0.098	0.069
Adjusted R ²	0.492	0.388	0.528	0.491	0.418	0.515	0.054	0.068	0.056

*p < .1; **p < .05; ***p < .01

between moral values and foreign policy attitudes in nationally representative samples. We can think of this concern as reflecting two different possibilities: in one, the *distribution* of moral values differs in our sample, and in the other, the *effects* of moral values differ in our sample.

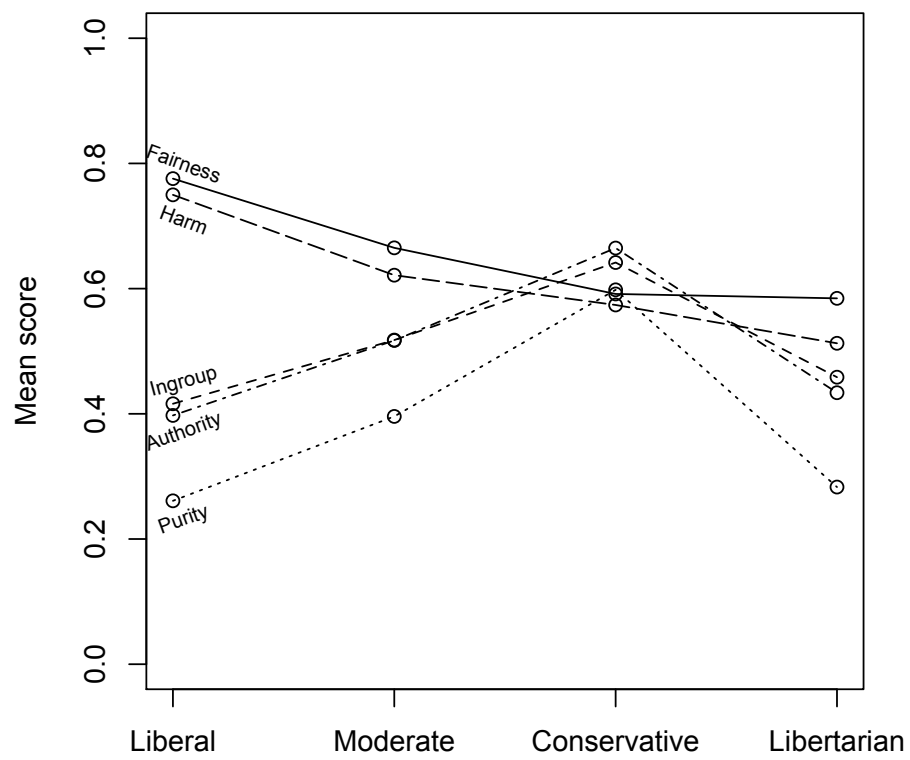
We address the first concern by using our data to replicate the classic moral values-by-ideology plot that is a mainstay of research in the moral foundations literature. Figure 1 replicates the classic finding of the moral foundations literature (demonstrated across both convenience samples – e.g. [Graham, Haidt and Nosek, 2009](#); [Weber and Federico, 2013](#) – and nationally representative ones – e.g. [Smith and Vaisey, 2010](#)), showing that liberals and conservatives rely on different configurations of the moral foundations. Liberals tend to have high scores on fairness and harm, whereas conservatives emphasize all five moral foundations. Libertarians share liberals’ lack of interest in the three conservative moral foundations (ingroup, authority, purity) but rely on fairness and harm to a similar extent as conservatives do. In other words, the distribution of moral values by ideology in our sample strongly resembles the distribution of moral values by ideology found on other samples in the literature, including those in which participants should not be uniquely morally motivated.

The question of whether the effects of moral values would differ in our sample is a more difficult one, but one that other scholars conducting research on the YourMorals platform have sought to address. One possible means of investigation is employed by [Iyer et al. \(2012\)](#), who examine participants’ responses based on information in their web browser about how they were referred to the study, to see whether participants who were already reading about morality-driven stories responded differently than those who came from more generic places on the web. They find no significant relationship between referral source and effect magnitude. Of course, the best way to explore how the relationship between moral values and foreign policy attitudes varies by sample is to replicate the study on additional samples. Thus it is reassuring that in a forthcoming book on the role of ideology in American public opinion, [Gries \(2014\)](#), includes measures of moral values as well as a series of items tapping into foreign policy preferences.⁵ Although his theoretical aims, instruments, and methods of analysis are different from ours, he finds that authority is positively associated with beliefs about the importance of projecting and sustaining military power (which we would consider to be part of MI), and that harm is positively associated with beliefs about humanitarianism (which we would consider to be part of CI).

All in all, the analyses above cannot rule out the possibility that we would see different effects in a different sample, but by showing (i) that our findings are robust to the demographic composition of the sample, (ii) that our participants do not appear to have systematically different foreign policy views than representative samples, and that our results are robust based upon participants’ attentiveness to politics, (iii) that our participants do not appear to have systematically different moral attitudes than

⁵We are grateful to Peter Hays Gries for sharing his findings with us.

Figure 1: Liberals and conservatives rely on different moral foundations

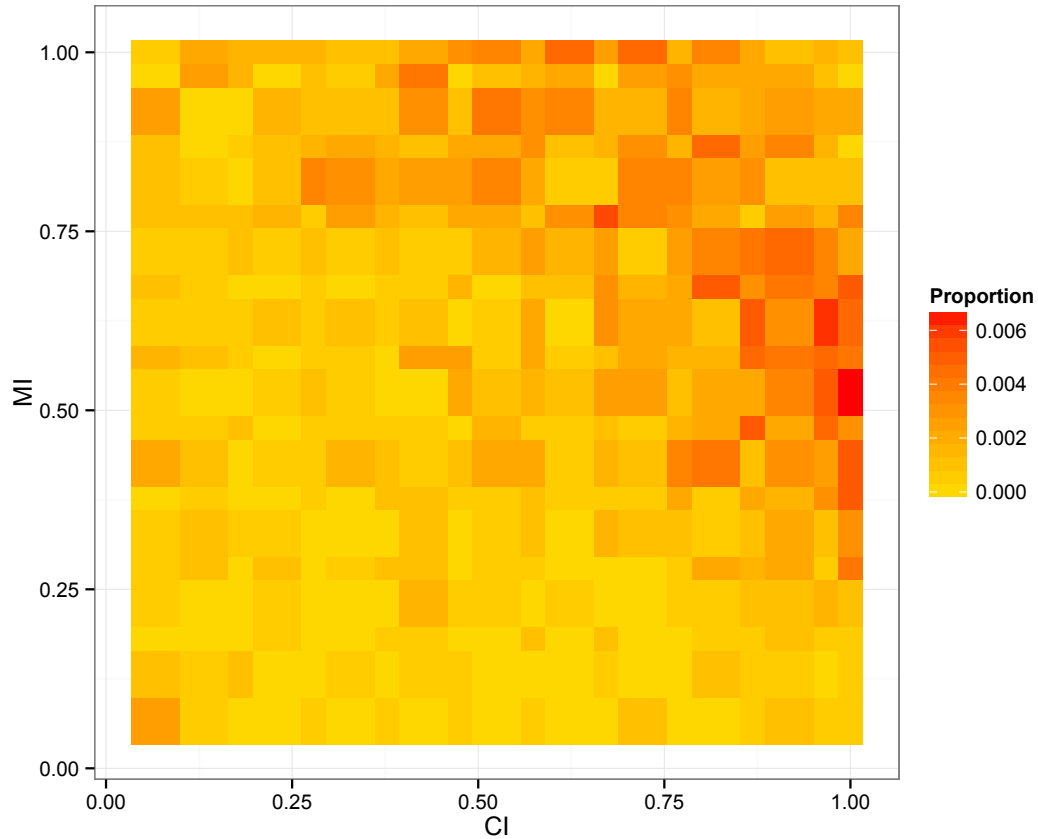


both representative samples and non-morally motivated convenience samples, and that other work on representative samples replicates two of our key findings, we can have greater confidence in our results.

4 MI and CI are not simply opposites

Figure 2 is a heat map that plots CI scores on the x-axis and MI scores on the y-axis. If CI and MI were simply opposites, we would expect that individuals with high levels of CI would have low levels of MI, and vice versa, such that the heat map would show a dark diagonal line from the top left to the bottom right corner of the plot. Instead, we find higher-resolution evidence for [Holsti and Rosenau's \(1988\)](#) two-dimensional model of foreign policy attitudes: some of our respondents are indeed “hardliners” who are high in MI and low in CI (the top left-hand quadrant of the plot), while others are indeed pacific “softliners” who are low in MI and high in CI (the bottom right-hand quadrant of the plot). However, we also find a substantial proportion of our participants are located in the off-diagonal cells, and are either low in both CI and MI (the bottom left-hand quadrant), or high in both (the top right-hand quadrant); indeed, a plurality of the participants appear to be internationalists who are relatively high in both CI and MI. In other words, foreign policy orientations cannot be captured by an individual's position a unidimensional scale; as [Bizumic et al. \(2013, 19\)](#) argue, attitudes toward peace and war are based on distinct dimensions with separate antecedents.

Figure 2: Distribution of CI and MI factor scores, on a percentile scale



A heat map of the distributions of respondents' Cooperative Internationalism (CI) and Militant Internationalism (MI) factor scores (converted to a percentile scale for ease of interpretability) show that, like [Holsti and Rosenau \(1988\)](#) argued, MI and CI are distinct constructs, not simply opposites. There are indeed “hardliners” that are high in MI and low in CI (the top-left quadrant), and “accommodationists” or “softliners” that are high in CI and low in MI (the bottom-right quadrant), but some participants are low in both CI and MI (the “isolationist” quadrant at the bottom-left), while many are high in both (the “internationalist” quadrant at the top-right).

5 Policy attitude regression tables

Because of space constraints, we present the regression results for the effects of the moral values on specific foreign policy preferences below in Table 5; the substantive effects are presented visually in the main text in Figure 1(d)-(g).

Table 5: Policy attitudes

	Iraq War		Iran Strike		Kyoto Protocol		Libya Intervention	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Harm	-0.236*** (0.046)	-0.209*** (0.047)	-0.250*** (0.053)	-0.236*** (0.055)	0.639*** (0.052)	0.603*** (0.053)	0.074 (0.054)	0.116** (0.055)
Fairness	-0.269*** (0.053)	-0.278*** (0.053)	-0.228*** (0.061)	-0.235*** (0.062)	0.565*** (0.060)	0.589*** (0.060)	0.166*** (0.062)	0.148*** (0.062)
Ingroup	0.298*** (0.051)	0.286*** (0.052)	0.375*** (0.059)	0.366*** (0.060)	-0.257*** (0.058)	-0.245*** (0.058)	0.157*** (0.060)	0.142*** (0.060)
Authority	0.195*** (0.054)	0.198*** (0.055)	0.192*** (0.063)	0.199*** (0.063)	-0.099 (0.062)	-0.077 (0.061)	0.124* (0.064)	0.115* (0.064)
Purity	0.157*** (0.040)	0.161*** (0.040)	0.107*** (0.046)	0.112*** (0.046)	-0.280*** (0.045)	-0.283*** (0.045)	-0.140*** (0.046)	-0.139*** (0.046)
Age		-0.00004 (0.0005)		-0.0004 (0.001)		-0.002*** (0.001)		0.0002 (0.001)
Male		0.039** (0.016)		0.008 (0.019)		-0.072*** (0.018)		0.050*** (0.019)
High school		-0.040 (0.054)		-0.153** (0.062)		0.022 (0.060)		-0.071 (0.062)
Some college		0.004 (0.037)		-0.086* (0.044)		0.031 (0.042)		0.022 (0.043)
College/university		0.016 (0.037)		-0.079* (0.043)		0.033 (0.041)		0.027 (0.043)
Grad/prof school		-0.010 (0.037)		-0.091** (0.044)		0.104** (0.042)		0.076* (0.044)
Constant	0.409*** (0.040)	0.371*** (0.055)	0.583*** (0.046)	0.672*** (0.064)	0.128*** (0.046)	0.190*** (0.062)	0.309*** (0.047)	0.220*** (0.064)
N	1,175	1,175	1,175	1,175	1,177	1,177	1,175	1,175
R ²	0.297	0.303	0.240	0.245	0.450	0.469	0.030	0.050
Adjusted R ²	0.294	0.296	0.236	0.238	0.447	0.464	0.026	0.041

*p < .1; **p < .05; ***p < .01. Reference category for education: less than high school. All variables scaled from 0-1, except for age. All analyses are unweighted; for weighted and other supplemental analyses, see Appendix §3 and §5.

6 Alternative operationalizations of the dependent variables

The main analyses presented in the text employ confirmatory factor score versions of the foreign policy orientations, to obtain a cleaner measure of the dependent variables of interest than would result from a simple additive score. Below we replicate the main results from the manuscript, but operationalizing the dependent variables in three different ways: first, with additive scores, second, disaggregating the dependent variables altogether using seemingly unrelated regression (SUR), to observe moral foundations' impact on each of the items in each scale, and finally, using factor scores derived from exploratory factor analysis. Each is described in turn below.

6.1 Additive scores

Table 6 below replicates the main results from the manuscript, but using simple additive scales to measure cooperative internationalism (CI), militant internationalism (MI), and isolationism, rather than the factor scores employed as measures of these concepts in the main text. As we would expect, the effect sizes are slightly larger with the factor score version of the dependent variables than the additive score version, but the substantive results remain the same, and there is no consistent attenuation in the variance explained across the different model specifications (e.g. the adjusted R^2 statistic in model 2 in Table 6 is slightly higher than in its counterpart in the factor score model in the main text, while the adjusted R^2 statistic in model 4 is slightly lower).

As we found in the main analyses, harm/care and fairness/reciprocity (the individualizing foundations) are positively associated with CI, but negatively associated with MI. Based on models 1 and 4 in 6, 1 unit increase in harm (on a 6 point scale) is accompanied by a 0.52 unit increase in CI and a 0.29 unit decrease in MI, and a 1 unit increase in fairness is associated with a 0.35 unit increase in CI and a 0.11 decrease in MI. Ingroup/loyalty, authority/respect, and purity/sanctity display the opposite pattern: these binding foundations are negatively associated with CI (with the exception of authority) and positively associated with MI – even in the weighted sample and in a model with demographic controls. A 1 unit increase in ingroup values is associated with a 0.18 unit decrease in CI and a 0.30 increase in MI. Similarly, a 1 unit increase in the extent to which an individual values authority and tradition is associated with a 0.18 increase in MI, but there is no statistically significant change in CI. Moving up 1 unit on values of purity/sanctity is associated with a 0.12 unit decrease in CI and a 0.14 unit increase in MI. Thus, those who value protecting and caring for others and maintaining equality are more likely to support working with other states to solve global problems, and less likely to support using the US military to intervene abroad. The opposite stands for those who place a strong emphasis on loyalty to their group, respect for authority figures, and the avoidance of things deemed disgusting or degrading.

Isolationism, we confirm, is largely unrelated to the five classic moral foundations. While people who score high on harm/care and ingroup/loyalty are slightly less likely to express isolationist attitudes – a 1 unit increase in harm, authority or ingroup values is associated with a 0.08 or 0.11 unit decrease, respectively, in isolationism, the effects are substantively smaller than those found for these moral foundations and MI/CI. Those who value obedience to authority figures are also less isolationist; though the effect is small, it is comparable the association between authority and CI (a 1 unit increase in authority/respect is associated with a 0.12 unit decrease in isolationism). All together, these results provide further support for our conclusions in the main text.

Table 6: Foreign policy batteries: additive scores

	Cooperative internationalism			Militant internationalism			Isolationism		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Harm	0.515*** (0.032)	0.587*** (0.035)	0.515*** (0.033)	-0.289*** (0.029)	-0.231*** (0.031)	-0.260*** (0.030)	-0.083*** (0.036)	-0.027 (0.038)	-0.102*** (0.037)
Fairness	0.345*** (0.037)	0.280*** (0.042)	0.347*** (0.037)	-0.114*** (0.033)	-0.185*** (0.037)	-0.123*** (0.033)	-0.014 (0.041)	-0.010 (0.046)	-0.003 (0.041)
Ingroup	-0.176*** (0.036)	-0.219*** (0.038)	-0.175*** (0.036)	0.301*** (0.032)	0.296*** (0.033)	0.286*** (0.032)	-0.123*** (0.040)	-0.213*** (0.041)	-0.118*** (0.040)
Authority	-0.058 (0.038)	-0.042 (0.040)	-0.055 (0.038)	0.186*** (0.034)	0.239*** (0.035)	0.191*** (0.034)	-0.111*** (0.042)	-0.048 (0.043)	-0.099** (0.043)
Purity	-0.122*** (0.028)	-0.176*** (0.032)	-0.123*** (0.028)	0.137*** (0.025)	0.071** (0.028)	0.143*** (0.025)	0.014 (0.031)	0.064* (0.035)	0.013 (0.031)
Age			-0.0004 (0.0003)			-0.0003 (0.0003)			-0.0005 (0.0004)
Male			-0.009 (0.011)			0.040*** (0.010)			-0.024* (0.013)
High School			-0.052 (0.037)			-0.023 (0.033)			0.082** (0.041)
Some college			0.009 (0.026)			0.010 (0.024)			0.027 (0.029)
College/university			0.017 (0.026)			-0.003 (0.023)			0.010 (0.029)
Grad/prof school			0.045* (0.026)			-0.011 (0.024)			-0.010 (0.029)
Constant	0.240*** (0.028)	0.248*** (0.031)	0.240*** (0.039)	0.536*** (0.025)	0.541*** (0.027)	0.510*** (0.035)	0.776*** (0.031)	0.752*** (0.034)	0.800*** (0.043)
Weights		Y	N	N	Y	N	N	Y	N
N	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181
R ²	0.488	0.442	0.495	0.465	0.393	0.474	0.045	0.037	0.061
Adjusted R ²	0.486	0.440	0.490	0.463	0.391	0.469	0.041	0.033	0.052

*p < .1; **p < .05; ***p < .01. Reference category for education: less than high school.

6.2 Seemingly unrelated regressions (SUR)

Another way to analyze the impact of the moral foundations on foreign policy attitudes is to disaggregate the foreign policy batteries by estimating separate regressions for each of their individual items. Since these variables are correlated with one another, we estimate the models using seemingly unrelated regressions, thereby letting us take advantage of the correlations between the equations' error terms (Greene, 2008, 254-263).⁶

Table 7 displays the results of an SUR analysis of cooperative internationalism. The substantive conclusions of the main analyses are robust to this disaggregation of the CI scale. The individualizing foundations, harm/care and fairness/reciprocity, are positively associated with each of the 5 items that comprise the CI scale used as the main dependent variable. The binding foundations, ingroup/loyalty, authority/respect, and purity/sanctity display a pattern similar to the general regression results: they are negatively associated with many of the individual items on the CI scale. However, the effects of authority on willingness to cooperate with the United Nations, working with other states to solve global problems, and the importance of protecting human rights abroad fail to reach statistical significance. Those who value purity/sanctity are also not more or less likely to support the promotion of human rights or an increased standard of living abroad.

Table 7: Seemingly unrelated regressions: cooperative internationalism

	UN cooperate (1)	Solve problems (2)	Human rights (3)	Standard of living (4)	Global environment (5)
(Intercept)	1.297	1.776	2.118	1.546	1.526
Harm	0.769	0.712	0.608	0.658	0.831
Fairness	0.690	0.517	0.361	0.378	0.535
Ingroup	-0.448	-0.195	-0.123	-0.186	-0.197
Authority	-0.007	-0.070	-0.042	-0.128	-0.211
Purity	-0.327	-0.269	-0.019	-0.057	-0.188
Age	-0.011	0.005	-0.010	-0.002	0.004
Male	-0.289	-0.014	0.095	0.191	-0.271
High School	0.111	-0.334	-0.410	-0.396	-0.329
Some college	0.019	0.106	0.140	0.176	-0.090
College/university	0.032	0.138	0.236	0.258	-0.001
Grad/prof school	0.360	0.334	0.274	0.322	0.229
N	1163	1163	1163	1163	1163
R^2	0.461	0.361	0.230	0.256	0.428
Adjusted R^2	0.456	0.355	0.222	0.248	0.422

*p < .1; **p < .05; ***p < .01. Reference category for education: less than high school.
For an explanation of the dependent variables, see Section 1.1

We present the results of seemingly unrelated regressions for the militant internationalism scale

⁶The items are ordinal-level data ranging from 1-7, which we treat as continuous, both because the analogous ordered choice equivalent to SUR – a multivariate ordered extension of a bivariate probit – is difficult to estimate, and also because OLS tends to produce highly similar results to ordered choice models once scales have around seven items.

in Table 8. Our main substantive findings are largely robust to this analysis: the individualizing foundations are negatively associated with most of the items that comprise the MI scale, and the binding foundations are positively associated with most items included in the MI scale. Exceptions to this include the non-significant relationships between fairness and three MI items: the use of force by the US to prevent aggression, striking at the heart of opponents' power, and the statement that war is sometimes the only solution to problems. Purity/sanctity also lacks an association with the items asking about the use of force to prevent aggression and war as the only solution.

Table 8: Seemingly unrelated regressions: militant internationalism

	Prevent aggression (1)	Strike at heart (2)	War only solution (3)	Domino theory (4)	Military strength (5)	Demonstrate resolve (6)
(Intercept)	2.752***	4.473***	4.520***	3.684***	3.010***	3.318***
Harm	-0.143**	-0.527***	-0.517***	-0.286***	-0.360***	-0.419***
Fairness	0.052	-0.050	-0.091	-0.369***	-0.353***	-0.115*
Ingroup	0.311***	0.376***	0.441***	0.225***	0.596***	0.470***
Authority	0.205***	0.275***	0.360***	0.259***	0.215***	0.307***
Purity	0.083	0.198***	0.027	0.409***	0.197***	0.320***
Age	-0.006*	-0.010***	-0.004	-0.006**	0.005	0.009***
Male	0.479***	0.351***	0.386***	0.021	0.260**	0.063
High School	-0.419	-0.018	0.186	-0.042	-0.056	-0.387
Some college/university	0.061	0.083	0.302	-0.103	-0.222	-0.098
College/university	-0.233	-0.149	0.294	-0.193	-0.114	-0.152
Grad/Prof school	-0.078	-0.360	0.418	-0.218	-0.337	-0.322
N	1162	1162	1162	1162	1155	1162
R^2	0.128	0.278	0.293	0.344	0.323	0.381
Adjusted R^2	0.119	0.271	0.286	0.338	0.316	0.375

* $p < .1$; ** $p < .05$; *** $p < .01$. Reference category for education: less than high school.

For an explanation of the dependent variables, see Section 1.1

Finally, Table 9 presents the results of a SUR analysis on the isolationism scale. Given the relatively small associations between isolationism and the five moral foundations in our regression analyses, we expect fewer statistically significant effects in these models than in those for CI and MI – and that is what we find. Harm/care, which is negatively associated with isolationism in the main models, is also negatively associated with 4 of the 5 isolationism items. The exception is, interestingly, the item indicating that American's leadership in the world should be scaled down. Given that individuals high in this moral foundation value caring for those who are weak and suffering, they might see American global leadership as a way to help achieve this - similar to their desire to see the US promote and defend human rights and raise the standard of living abroad (see Table 7). The items most intuitively associated with a sense of isolationism – that the US should mind its own business and that we should concentrate on national problems – also have the fewest significant associations.

Table 9: Seemingly unrelated regressions: isolationism

	Mind business (1)	Own problems (2)	Active role (3)	Scale down (4)	Internal threats (5)
(Intercept)	5.676***	5.755***	6.675***	4.958***	5.263***
Harm	-0.250***	-0.451***	-0.218***	0.208***	-0.134**
Fairness	-0.026	-0.052	-0.155**	0.242***	0.076
Ingroup	-0.147*	0.082	-0.126*	-0.402***	-0.108
Authority	-0.139*	0.046	-0.180**	-0.318***	-0.207***
Purity	0.010	0.151**	0.031	-0.159***	0.014
Age	-0.007**	-0.008**	-0.002	0.006*	-0.003
Male	0.001	-0.364***	-0.420***	-0.248**	0.113
High School	0.750*	0.970**	0.736*	0.425	0.541
Some college/university	0.122	0.248	-0.146	0.140	0.402
College/university	0.196	0.011	-0.264	0.035	0.225
Grad/Prof school	0.048	-0.240	-0.372	-0.028	0.098
N	1160	1160	1154	1160	1160
R^2	0.046	0.102	0.062	0.231	0.043
Adjusted R^2	0.037	0.093	0.053	0.224	0.034

* $p < .1$; ** $p < .05$; *** $p < .01$. Reference category for education: less than high school.

For an explanation of the dependent variables, see Section 1.1

6.3 Exploratory factor scores

Finally, Table 11 replicates the main results from the manuscript, but using a slightly different factor analytic approach. Rather than extracting a single factor dimension from each of the three foreign policy batteries, principal axis factoring with varimin rotation was used on all 16 items, thereby allowing traditional MI, CI and isolationism items to load on one another's factors. Although the model settled on a three-factor solution that strongly resembles the three distinct scales (see Table 10),⁷, some cross-loadings emerge, revealing the extent to which these constructs are related to one another. Indeed, the "global leadership" item ("America's conception of its leadership role in the world must be scaled down") loads on both the MI and isolationism factor, and has a stronger loading on the MI factor than on the isolationism one, although we retain it on the isolationism scale in the main analyses for conceptual consistency. More importantly, though, the pattern of results with these alternate factor scores are not substantively different from those from the other specifications of the dependent variable, offering further confidence in our results.

⁷The fact that the exploratory factor analysis settles on three dimensions confirms that, as per Chittick, Billingsley and Travis (1995); Murray (1996) and Rathbun (2007) isolationism supplements MI and CI, rather than being subsumed by them. Indeed, when we compare a two-factor solution to a three-factor solution, the three-factor solution has a superior fit as measured both by RMSEA (0.05 for the three-factor solution, versus 0.079 for the two-factor solution), the Tucker Lewis Index (0.962 for the three-factor solution, versus 0.906 for the two-factor solution), and BIC scores (−119.85 for the three-factor solution, versus 511.9 for the two-factor solution).

Table 10: Pattern matrix

Item	CI	MI	Isolationism
Cooperate with UN	0.691	-0.468	-0.054
Solve Global Problems	0.769	-0.278	-0.159
Human Rights	0.660	0.004	-0.331
Improve Life Abroad	0.675	-0.146	-0.309
Protect Environment	0.739	-0.360	-0.050
Prevent aggression	0.076	0.626	-0.194
Strike at heart of power	-0.180	0.660	0.038
War only solution	-0.177	0.643	-0.169
Domino theory	-0.255	0.632	-0.059
Military strength	-0.339	0.598	-0.248
Demonstrate resolve	-0.177	0.771	-0.084
US mind own business	-0.217	-0.168	0.705
Focus on domestic	-0.340	0.076	0.628
Active in global conflicts	-0.384	-0.328	0.542
Global leadership	0.192	-0.576	0.489
Allies can defend selves	-0.060	-0.197	0.639

Table 11: Foreign policy batteries: exploratory factor scores

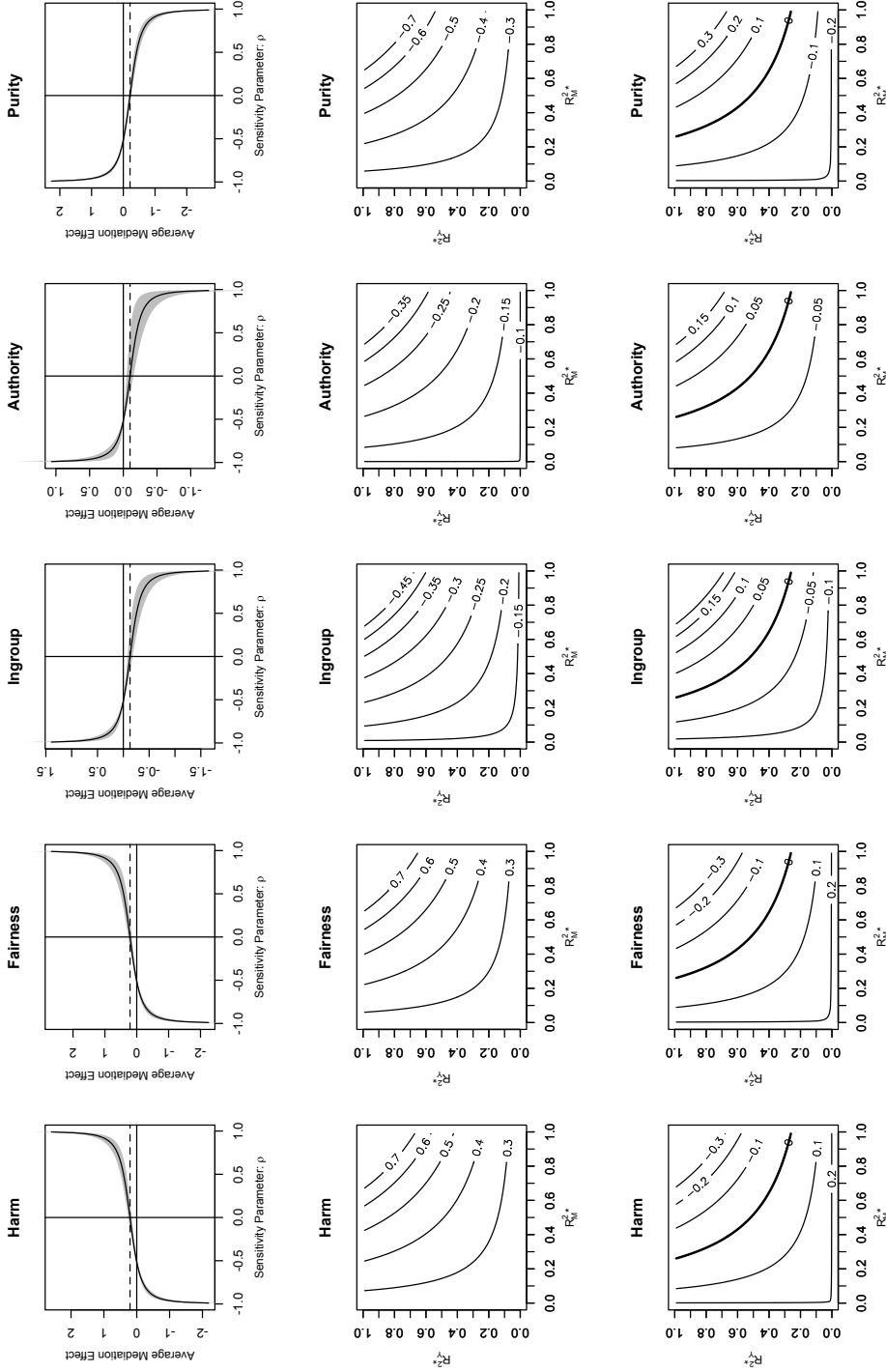
	Cooperative internationalism			Militant internationalism			Isolationism		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Harm	0.359*** (0.028)	0.396*** (0.031)	0.369*** (0.029)	-0.263*** (0.031)	-0.276*** (0.033)	-0.235*** (0.032)	-0.130*** (0.039)	-0.132*** (0.041)	-0.148*** (0.040)
Fairness	0.300*** (0.033)	0.269*** (0.037)	0.299*** (0.033)	-0.053 (0.036)	-0.067* (0.039)	-0.060* (0.036)	0.033 (0.045)	0.086* (0.049)	0.047 (0.045)
Ingroup	-0.087*** (0.032)	-0.112*** (0.033)	-0.092*** (0.032)	0.291*** (0.035)	0.320*** (0.035)	0.275*** (0.035)	-0.074* (0.044)	-0.122*** (0.044)	-0.070 (0.044)
Authority	-0.024 (0.033)	-0.017 (0.035)	-0.017 (0.034)	0.180*** (0.037)	0.196*** (0.037)	0.188*** (0.037)	-0.076* (0.046)	-0.048 (0.046)	-0.061 (0.046)
Purity	-0.070*** (0.024)	-0.119*** (0.027)	-0.070*** (0.024)	0.157*** (0.027)	0.078*** (0.029)	0.163*** (0.027)	0.032 (0.033)	0.071* (0.037)	0.034 (0.033)
Age			-0.001* (0.0003)			-0.0004 (0.0003)			-0.001* (0.0004)
Male			0.003 (0.010)			0.037*** (0.011)			-0.019 (0.014)
High School			-0.020 (0.033)			-0.030 (0.036)			0.091** (0.045)
Some college			0.034 (0.023)			0.005 (0.026)			0.023 (0.032)
College/university			0.033 (0.023)			-0.010 (0.025)			0.00004 (0.032)
Grad/prof school			0.050** (0.023)			-0.018 (0.026)			-0.015 (0.032)
Constant	0.179*** (0.025)	0.185*** (0.027)	0.154*** (0.034)	0.418*** (0.027)	0.439*** (0.028)	0.407*** (0.038)	0.632*** (0.034)	0.618*** (0.035)	0.663*** (0.047)
Weights	N	Y	N	N	Y	N	N	Y	N
N	1,121	1,121	1,121	1,121	1,121	1,121	1,121	1,121	1,121
R ²	0.398	0.359	0.405	0.419	0.358	0.429	0.021	0.021	0.040
Adjusted R ²	0.396	0.356	0.399	0.416	0.355	0.423	0.017	0.017	0.031

*p < .1; **p < .05; ***p < .01. Reference category for education: less than high school. All variables scaled from 0-1, except for age.

7 Sensitivity analyses for nonparametric mediation analyses

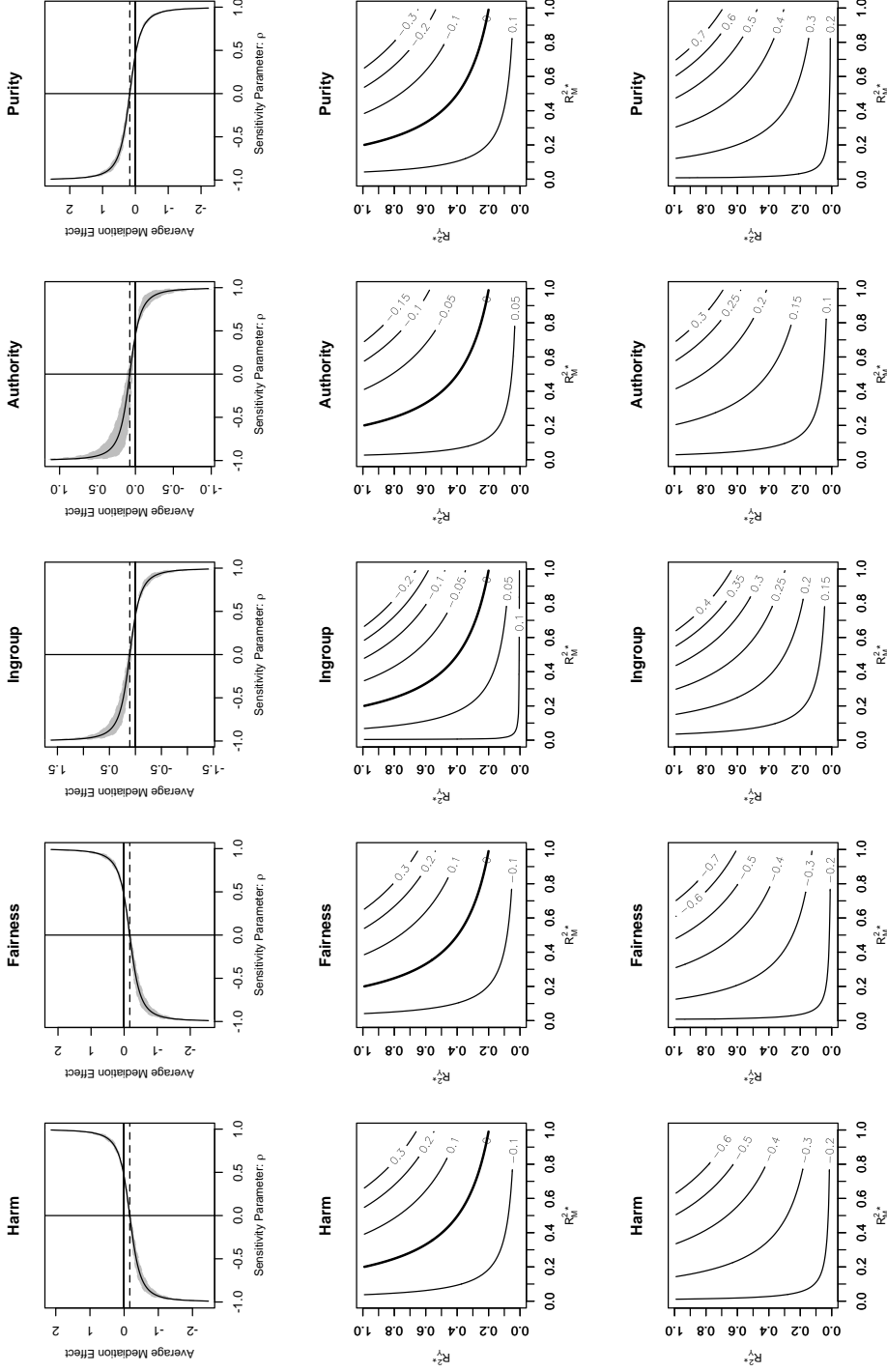
Figures 3-4, below, visually depict the results of sensitivity analyses for the two nonparametric mediation models with significant mediation effects, estimated using `mediation` 4.0 in R (Imai et al., 2011; Tingley et al., 2012). The top row of each plot depicts the mediation effects (on the y axis) against sensitivity parameter ρ (the correlation between the error terms in the mediator and outcome models) on the x axis, with shaded 95% CI bands. The contour plots in the second and third rows present the mediation effect as a function of the proportion of the total variance of the mediator (along the x axis) and outcome (along the y axis). In the second row, the unobserved confounder is assumed to shape the mediator and outcome in the same direction; in the third row of plots, the confounder is assumed to shape the mediator and outcome variables in opposite directions. These two sets of plots confirm that our estimates of the mediation effect for cooperative internationalism and militant internationalism are highly robust.

Figure 3: Sensitivity analyses: Cooperative Internationalism



Sensitivity analyses show that the moral values have relatively robust mediation effects on Cooperative Internationalism. The top row plots the mediation effects against sensitivity parameter ρ (the correlation between the error terms in the mediator and outcome models), with shaded 95% CI bands. This row of plots show that ρ must be -0.51 (between -0.55 and -0.47 with 95% CIs, depending on the moral foundation) in order for the mediation effects to be nonsignificant. The contour plots in the second and third rows plot the mediation effect as a function of the proportion of the total variance of the mediator (along the x axis) and outcome (along the y axis). In the second row, the unobserved confounder is assumed to shape the mediator and outcome in the same direction; in the third row of plots, the confounder is assumed to shape the mediator and outcome variables in opposite directions. The fact that the ACME doesn't switch signs in the second row of plots shows that the mediation model is extremely robust if the unobserved confounder shapes the mediator and outcome variables in the same direction; if the unobserved confounder pushes the mediator and outcome variables in opposite directions (as in the third row), the mediation effect is significant as long as the unobserved confounder doesn't account for 51% ($\sqrt{0.2601}$) of the variance. Analyses conducted using the mediation package in R. See [Tingley et al. 2012](#).

Figure 4: Sensitivity analyses: Militant Internationalism



Sensitivity analyses show that the moral values have relatively robust mediation effects on Militant Internationalism, although slightly less robust than their mediation effects on Cooperative Internationalism. The top row plots the mediation effects against sensitivity parameter ρ (the correlation between the error terms in the mediator and outcome models), with shaded 95% CI bands. This row of plots show that ρ must be 0.45 (between 0.4 and 0.49 with 95% CIs, depending on the moral foundation) in order for the mediation effects to be nonsignificant. The contour plots in the second and third rows plot the mediation effect as a function of the proportion of the total variance of the mediator (along the x axis) and outcome (along the y axis). In the second row, the unobserved confounder is assumed to shape the mediator and outcome variables in the same direction; in the third row of plots, the confounder is assumed to shape the mediator and outcome variables in opposite directions. The fact that the ACME doesn't switch signs in the third row of plots shows that the mediation model is extremely robust if the unobserved confounder shapes the mediator and outcome variables in opposite directions; if the unobserved confounder pushes the mediator and outcome variables in the same direction (as in the second row), the mediation effect is significant as long as the unobserved confounder doesn't account for 45% ($\sqrt{0.2025}$) of the variance. Analyses conducted using the

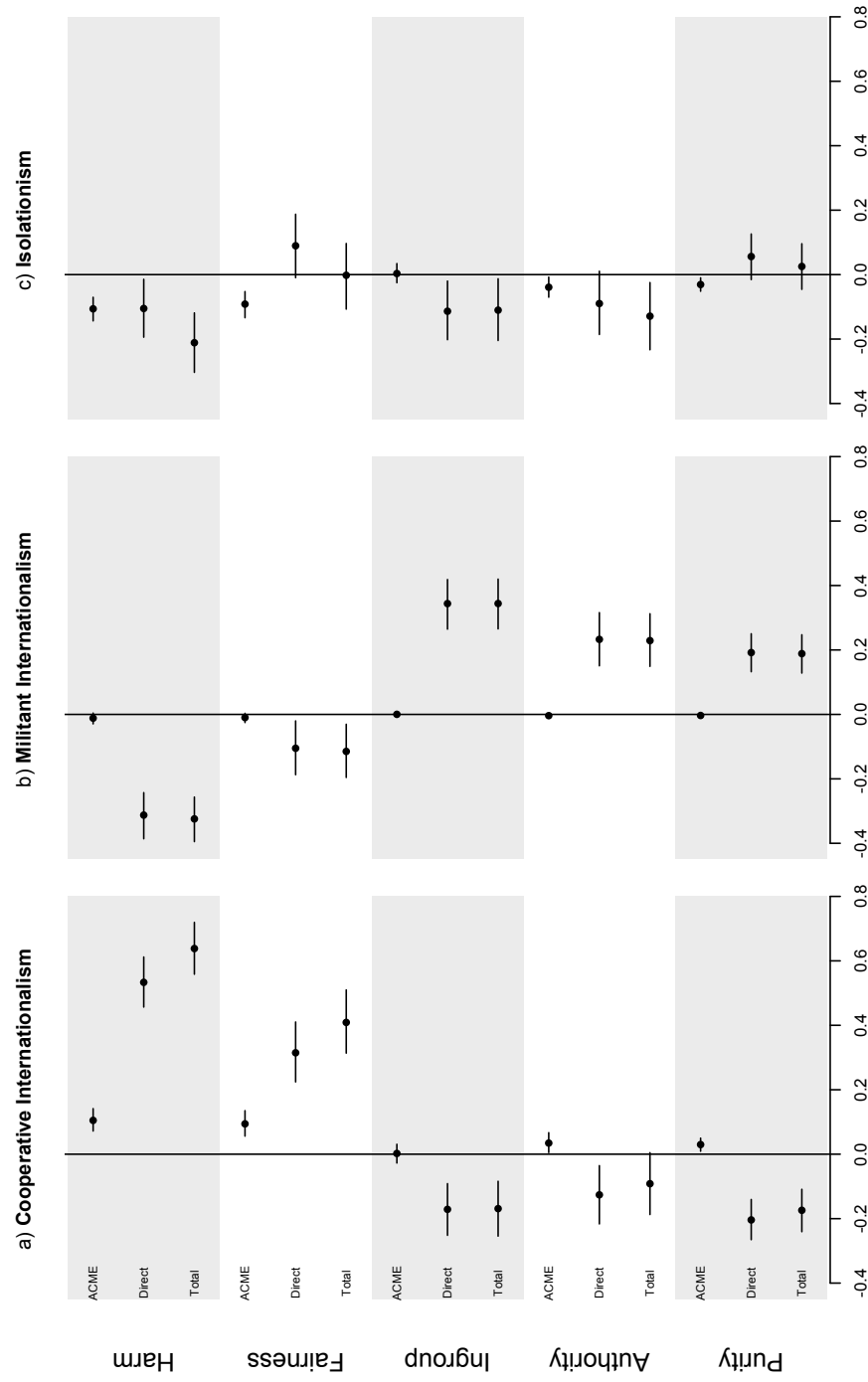
mediation package in R. See [Tingley et al. 2012](#).

8 The many dimensions of ideology: Does libertarianism mediate the impact of moral foundations?

As noted in the main text, the nonparametric mediation analyses exploring how political ideology mediates the impact of the moral foundations on foreign policy attitudes drops the libertarians from the sample in order to facilitate a more straightforward mediation model – given that libertarianism is qualitatively different from a standard left-right political spectrum, including libertarians in the sample would preclude us from estimating a mediation model in which we treat the mediator as a continuous variable (Weber and Federico, 2013). However, existing research shows that libertarians tend to rely less on the five moral foundations analyzed here, which raises the question of whether the mediation model outlined in the main analyses applies for libertarians as well; Iyer et al. (2012) include a sixth moral foundation, liberty, and finds that libertarians to draw upon this more heavily.

We therefore estimate a set of mediation models in which each of the five moral foundations' impact on foreign policy attitudes are mediated by libertarianism – a dichotomous variable indicating whether participants identified as libertarians or not. Since libertarians tend not to rely on the five moral foundations (but foreign policy attitudes do, as shown in the main analyses), the direct and total effects of the mediation models are likely to be strongly significant, but the indirect effects less so. Figure 5 bears out our expectations: although a handful of the moral values have significant indirect effects, they are substantively small in comparison to the direct effects, and for MI, all of the indirect effects straddle the 0 line. Meanwhile, the direct effects are relatively large in magnitude, especially for the impact of the individualizing foundations on CI. Indeed, if we compare the proportion of the moral foundations' effects transmitted through paths other than the mediator in the libertarian mediation models versus in the standard seven-point ideology model, the results are striking: in the ideology mediation models, 46.9% of the individualizing foundations' effects on CI, and 23.9% of the binding foundations' effects on CI, go through paths other than ideology; in the libertarian mediation models, the figures are 80.4% and 118.1%, respectively. Similarly, in the ideology mediation models, 4.74% of the individualizing foundations' effects on MI, and 50.71% of the binding foundations' effects on MI, go through paths other than ideology; in the libertarian mediation models, the figures are 93.8% and 101%, respectively.

Figure 5: Nonparametric mediation analyses: libertarianism



Nonparametric mediation analyses calculated using $N=1500$ simulations and 95% quasi-Bayesian confidence intervals show that the five moral values effects on foreign policy attitudes are not mediated by libertarianism. Analyses conducted using the mediation package in R. See [Imai et al. 2011](#); [Tingley et al. 2012](#).

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