Does International Terrorism affect Public Attitudes toward Refugees?

Evidence from a Large-scale Natural Experiment

Online Appendix

Contents

A   Survey data and design

Data.   The survey data were collected by the public opinion research firm Vox Pop Labs as part of a large-scale 2015 Canadian federal election post-election survey. The survey was sent to all members of the firm's national online public opinion panel (~480,000 potential respondents), from which 68,116 respondents completed the survey (a response rate of 14%), and 18,634 received and completed the survey module concerning Syrian refugees.[1] The survey was sent through e-mail invitation to the first sample of randomly selected respondents less than 48 hours before the Paris terrorist attacks (n = 1,152), and to a second sample less than 48 hours afterward (n = 2,448). Further surveys were then sent to independent randomly sampled respondents each day for 18 days thereafter (n = 835 on average per day). As noted in the article, because the survey was sent to all members of the research firm's online database, respondents were not purposefully selected to match the socio-demographic characteristics of the national population. Estimates presented in the article's results section are therefore statistically adjusted through regression and survey weighting to match the population's demographic and geographic distribution as indicated by the national census. Weighting variables include gender, age, education, mother tongue, and region of residence.

Design.   The survey was designed to capture two primary outcomes: (1) support for Syrian refugee resettlement, and (2) willingness to contact a Member of Parliament about the issue. It further captured 21 separate indicators measuring anxiety toward and sympathy for Syrian refugees, and perceptions of Syrian refugees as a threat to security, to culture, and to the economy. Due to survey length restrictions given by the survey firm, respondents were assigned at random to one of two survey branches containing either questions regarding emotions (sympathy and anxiety), or those regarding threat (security, cultural, and economic).

All respondents read a short paragraph stating that the government was considering ad-

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[1] Within-survey assignment to receive the Syrian refugee question module, or an alternative unrelated module, was randomly assigned.

mitting more refugees from Syria. Respondents who were assigned to the emotion branch were then asked to specify, on a 0 to 10 scale, the degree to which they felt the following emotions toward Syrian refugees: sympathy, indifference, compassion, sadness, and distress.[2] Responses to the first four of these items were summed to form a sympathy index ($\alpha = 0.79$).[3] Respondents were then asked a similar question regarding another set of emotions regarding Syrian refugee resettlement: anxiety, upset, worry, fear, anger, pride, and hope. Responses to the first four of these items were summed to form an anxiety index ($\alpha = 0.93$).[4,5]

Respondents who were assigned to the threat branch were asked three sets of three questions to measure their beliefs concerning the degree to which Syrian refugee resettlement posed a threat to security, to culture, and to the economy. To create a security threat index, respondents were asked whether they believed that some Syrian refugees would have links to terrorism; whether those refugees would pose a threat to national security; and whether the refugees' presence would lead respondents to fear for their safety. A six-category Likert scale, from "Strongly disagree" to "Strongly agree", was used as the response scale. Responses were summed to form a security threat index ($\alpha = 0.91$). To measure perceptions of refugees as a cultural threat, respondents were asked whether they believed that Syrian refugees would integrate well into society; whether their values would conflict with those of the society into which they would belong; and whether their presence would benefit national culture ($\alpha = 0.81$). For the final index, respondents were asked whether Syrian refugees' presence would be economically costly; whether refugees would help grow the economy; and whether refugees would increase competition for jobs ($\alpha = 0.64$). All indexes are standardized to have mean zero and unit variance in the pre-attack period, and estimated effects are therefore presented in standardized units.

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[2]Terminal ends of the scale were labeled 'Not at all' and 'A great deal'.

[3]In a factor analysis, the loading for the distress indicator was low, and excluded from the index.

[4]Following Brader, Valentino and Suhay (2008), we label this index 'anxiety', but it can also be interpreted as measuring 'negative affect'. Including 'anger' in the index produces equivalent results (see Appendix F) and scale consistency ($\alpha = 0.93$). We exclude it from the index, however, because anxiety and anger are generally considered to theoretically signify distinct emotions.

[5]In factor analysis, the loadings for 'pride' and 'hope' were low, and excluded from the index.

Finally, all respondents were asked whether they favored Syrian refugee resettlement on a 6-category Likert scale ("Strongly disagree" to "Strongly agree"), and whether they would consider contacting their Member of Parliament regarding refugee resettlement ("No"/"Yes"). This latter measure is used as a proxy for political mobilization regarding the issue of resettlement, although it may also be regarded more conservatively as a measure of issue salience.

The questions were embedded in a survey module that experimentally varied refugees' religion and place of resettlement (for question complete wording, see Appendix J). This allows us to test whether the effects of the attacks are moderated by refugees' religion and place of resettlement. They are not. As we show in Appendix I, we find no evidence of effect moderation for any outcome examined. For simplicity, estimates presented in the Results section of the article therefore marginalize over these conditions.

B   Balance checks

Because survey respondents were assigned to receive the survey on each day at random, the timing of survey receipt is, by design, independent of the Paris attacks. Nevertheless, it is possible that the attacks or other confounders could have caused differences in sample composition between the pre- and post-attack samples due to differential survey response. To investigate this, we examine pre-treatment variable balance between samples. To begin, Table A1 presents descriptive statistics of the sample of survey respondents who were invited and responded to the post-election survey less than two days before the November 13, 2015 Paris terrorist attacks and the sample of respondents who were invited and responded less than two days afterward. The fourth column displays the normalized difference between the two samples for each covariate (Imbens and Rubin, 2015, 310-313), calculated as follows:

$$\Delta \equiv \frac{\mu_{t=0} - \mu_{t=1}}{\sqrt{(\sigma_{t=0}^2 + \sigma_{t=1}^2)/2}}, \tag{A1}$$

where $\mu_{t=0}$ and $\mu_{t=1}$ denote the sample means calculated from the data collected before ($t=0$)

Table A1: Balance checks for data collected within 2 days of the Paris terrorist attacks

	Mean ($\mu_{t=0}$) < 2 days before	Mean ($\mu_{t=1}$) < 2 days after	Normalized difference (Δ)
Political ideology (0 = left, 10 = right)	4.12	4.19	-0.03
Female	0.39	0.4	-0.01
Male	0.61	0.6	0.01
Age 18-29	0.15	0.16	-0.01
Age 30-39	0.18	0.17	0.03
Age 40-49	0.13	0.13	-0.03
Age 50-64	0.31	0.3	0.03
Age 65+	0.23	0.24	-0.03
High school or below	0.16	0.14	0.04
College	0.24	0.24	0.01
University degree	0.6	0.62	-0.04
Quebec	0.27	0.26	0.02
West	0.31	0.32	-0.04
Ontario	0.37	0.35	0.03
Atlantic	0.05	0.06	-0.03
English	0.67	0.67	0.01
French	0.16	0.17	-0.03
Other language	0.17	0.16	0.02

This table shows the mean level of pre-treatment covariates (political ideology, gender, age, education, region, mother tongue) from the survey sample collected less than 2 days before the attacks (n = 1,121) and that collected less than 2 days after the attacks (n = 2,418). The fourth column displays the normalized difference in means between the two samples. Political ideology is an ideological self-placement scale where 0 indicates left-wing and 10 indicates right-wing.

and after ($t = 1$) the attacks, and $\sigma_{t=0}$ and $\sigma_{t=1}$ denote the respective standard deviations.

As is clear from Table A1, sample characteristics before and after the Paris attacks are extremely similar across all observed pre-treatment covariates, showing no evidence of meaningful differences in survey non-response.[6] To test this further, we regress an indicator variable that represents responding to the survey invitation after the attacks on the full set of pre-treatment covariates. As shown in Table A2, none of the model parameters for these covariates significantly differentiate respondents in the pre- and post-attack samples, providing further evidence that non-response among the random sample of respondents surveyed after the

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[6]Pre-treatment covariates (i.e. demographics and political ideology) were collected prior to the attacks, when respondents were first included in the public opinion research firm's online survey database, and thus are not themselves affected by the attacks.

Table A2: Regression results to examine sample composition before and after the Paris attacks

	Response after Paris attacks
Female	0.016 (0.076)
Age 30-39	−0.129 (0.129)
Age 40-49	0.021 (0.142)
Age 50-64	−0.101 (0.117)
Age 65+	−0.020 (0.123)
College	0.081 (0.122)
University degree	0.138 (0.107)
Francophone	0.155 (0.157)
Other language	−0.006 (0.137)
Ontario	−0.156 (0.172)
Quebec	−0.283 (0.229)
West	−0.051 (0.174)
Political ideology	0.019 (0.016)
Survey language: French	−0.574** (0.204)
Intercept	0.918*** (0.208)
N	3,559

This table presents results from a logistic regression model fit to survey data collected within 2 days before and after the attacks. *p < .05; **p < .01; ***p < .001

attacks does not meaningfully differ from that of respondents sampled before the attacks.[7] Furthermore, a likelihood ratio test between a model with and without pretreatment covariates provides no strong evidence that the covariates *jointly* differentiate respondents in the pre- and post-attack samples (p = 0.73).

Because the article examines effect duration, we also investigate differential non-response by comparing the pre-attack sample to the complete post-attack sample. A likelihood ratio test finds that pretreatment covariates do not significantly differentiate the pre-attack from the full post-attack sample (p = 0.35). Lastly, we conduct a series of 10 separate likelihood ratio tests, correcting for multiple comparisons, by comparing the pre-attack sample to each of the 10

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[7]Note that a parameter for the variable "Survey language: French" is included in the regression specification because the proportion of survey invitations to respondents who take surveys in the French language was sampled at a higher frequency in the first sample from the post-election survey by design for reasons unrelated to goal of the refugee questions. The raw data presented graphically in the article are weighted by survey language to reflect this.

post-attack 2-day periods as are shown graphically by each point in Figures 1, 2, and 3A in the article. None of the likelihood ratio tests suggest any statistical differences between the pre-attack sample and each of the post-attack samples. Table A3 shows the sample characteristics for each of these samples.

Finally, as a further robustness check, we run a series of equivalence tests by applying two one-sided tests (TOST) for each pre-treatment variable (Hartman and Higalgo, 2018). In the standard balance testing frameworks (as conducted and described above) researchers test the null hypothesis of no difference between pre-treatment variables to demonstrate that the data are consistent with the assumptions of a given research design. By contrast, the equivalence testing framework inverts this standard framework by testing the null hypothesis that the data are *inconsistent* with a research design. As a balance test, equivalence testing therefore seeks to reject the null hypothesis in favor of the alternative hypothesis that the data are consistent with one's research design, i.e. that the distribution of pre-treatment variables are effectively equivalent between the control and treatment groups. This testing framework addresses the problem that the absence of statistically significant differences is not necessarily itself strong evidence of there being no meaningful differences between pre-treatment variables.[8] In under-powered studies, for example, there may be large differences between pre-treatment variables that are difficult to detect—for lack of sufficient data—under the null hypothesis of no difference.[9]

Equivalence testing operates as a balance test by constructing bounds ϵ_L and ϵ_U that define the range between which pre-treatment covariate differences would be considered inconsequential (Hartman and Higalgo, 2018). Two one-sided tests are then conducted under the null hypothesis that the difference in pre-treatment variables *are* consistent with a meaningful difference, where the magnitude of a meaningful difference is defined as $|\epsilon|$ or larger.[10]

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[8]This is analogous to the problem of demonstrating null effects to the extent that results that are not statistically significant can nevertheless be consistent with a large range of meaningful effect sizes (see Rainey, 2014; Gross, 2015).

[9]As Hartman and Higalgo (2018) write, "[t]he main issue is that people tend to incorrectly conflate low power with inconsequential difference or statistical significance with substantive difference."

[10]Equivalence bounds need not be defined symmetrically, but this is typical in practice.

Figure A1: Results of Equivalence Tests for Pre-treatment Variables
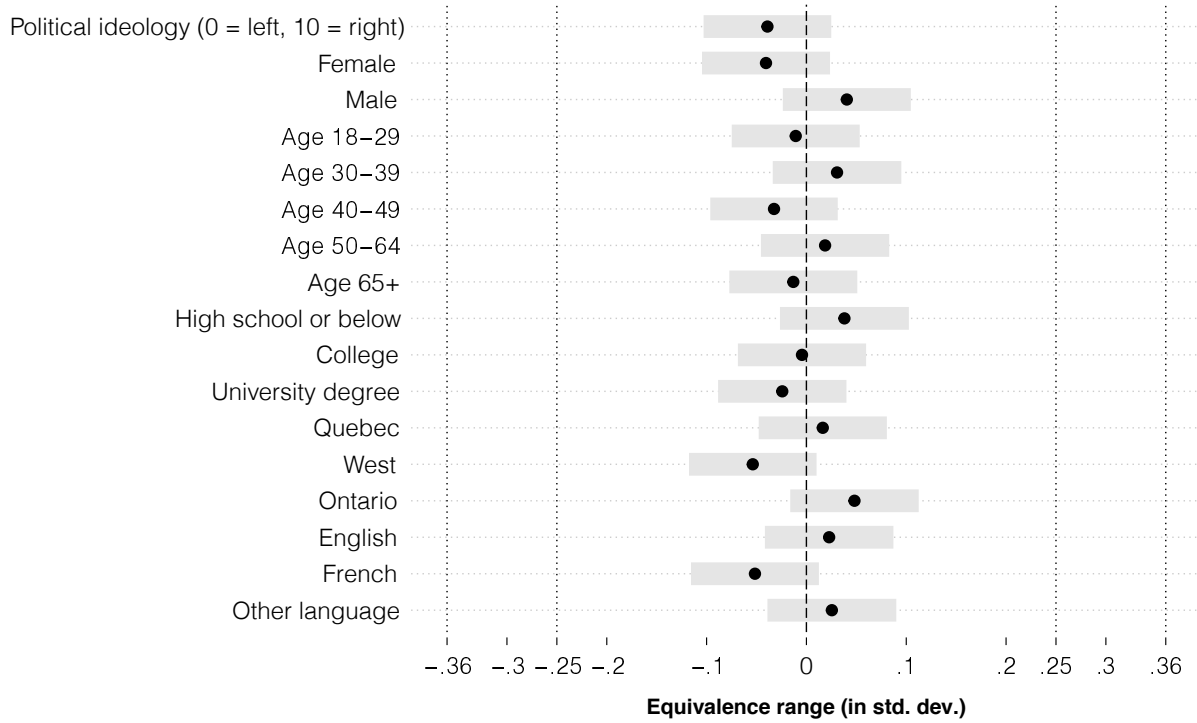
This table shows the mean standardized difference in pre-treatment variables for respondents in the immediate pre- and post-attacks periods (two days before and after the attacks). Vertical lines at 0.36 and 0.25 represent the standardized difference between variables suggested as consequential. Horizontal lines represent the inverted equivalence intervals that show the range of differences between pre-treatment variables supposed by the observed data.

Rejecting the null hypothesis thus provides evidence that differences between pre-treatment variables are not meaningfully large.

Defining the values of ϵ_L and ϵ_U is an area of active research.[11] However, meaningful differences are generally defined as those greater than 0.36 standard deviations (Hartman and Higalgo, 2018) or, more conservatively, those greater than 0.25 standard deviations (Ho et al., 2007; Imbens and Rubin, 2015). Nevertheless, researchers can also construct equivalence confidence intervals for each pre-treatment variable that define the largest difference at which the null hypothesis of a difference would be rejected. This interval quantifies, in other words, our uncertainty about the true possible range of imbalance (Hartman and Higalgo, 2018).

To apply equivalence tests to examine differential non-response in our data, we test for

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[11]For example, Imai, King and Stuart (2008) argue that—theoretically—no imbalance is acceptable.

differences in pre-treatment variables by constructing equivalence confidence intervals and testing whether the difference between the control and treatment group for each is less than 0.25 standard deviations (the more conservative threshold). Results are presented in Figure A1. Fortunately, due to the size of our data, we have substantial statistical power to conduct these tests, and thus the size of the equivalence confidence intervals are small. As Figure A1 shows, the data are consistent with differences well below 0.25 standard deviations, and in most cases, below 0.1. Two one-sided tests applied to each pre-treatment variable reject the null hypothesis of consequential differences (defined as $|\epsilon| = 0.25$) for all pre-treatment variables ($p < 0.001$ in all tests).

Finally, we note that the invitation to the survey itself referred to it as a post-election study, and did not reference either the Paris attacks or refugees. We can expect, therefore, that no respondents in the immediate post-attack period would have responded (or not responded) to the survey invitations based on the inclusion of questions regarding refugees. In sum, both empirically, given the comparison of observed pre-treatment variables, and theoretically, given the construction of the survey, there is a very strong case that responding to the survey before and after the attacks is independent of treatment assignment.

Table A3: Balance checks for data collected across full period

	< 2 days before	< 2 days after	3-4	5-4	7-8	9-10	11-12	13-14	15-16	17-18	19-20
Political ideology (0 = left, 10 = right)	4.12	4.19	4.06	4.25	4.25	4.15	4.25	4.16	4.17	4.08	4.27
Female	0.39	0.4	0.39	0.37	0.37	0.36	0.38	0.39	0.36	0.37	0.39
Male	0.61	0.6	0.61	0.63	0.63	0.64	0.62	0.61	0.64	0.63	0.61
Age 18-29	0.15	0.16	0.16	0.18	0.15	0.14	0.16	0.16	0.17	0.16	0.17
Age 30-39	0.18	0.17	0.19	0.16	0.16	0.17	0.16	0.19	0.18	0.17	0.18
Age 40-49	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.13	0.15	0.15	0.14
Age 50-64	0.31	0.3	0.28	0.29	0.29	0.33	0.3	0.3	0.28	0.29	0.27
Age 65+	0.23	0.24	0.23	0.25	0.27	0.22	0.25	0.22	0.22	0.23	0.24
High school or below	0.16	0.14	0.13	0.14	0.15	0.12	0.14	0.12	0.15	0.15	0.15
College	0.24	0.24	0.24	0.27	0.26	0.26	0.26	0.25	0.24	0.24	0.24
University degree	0.6	0.62	0.64	0.59	0.59	0.62	0.6	0.63	0.62	0.61	0.61
Quebec	0.27	0.26	0.25	0.27	0.26	0.27	0.25	0.27	0.28	0.26	0.26
West	0.31	0.32	0.34	0.33	0.34	0.33	0.36	0.29	0.27	0.33	0.35
Ontario	0.37	0.35	0.36	0.35	0.35	0.35	0.34	0.37	0.39	0.35	0.32
Atlantic	0.05	0.06	0.06	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06
English	0.67	0.67	0.68	0.66	0.69	0.66	0.65	0.66	0.66	0.66	0.66
French	0.16	0.17	0.14	0.17	0.16	0.17	0.17	0.16	0.17	0.15	0.18
Other language	0.17	0.16	0.17	0.17	0.15	0.17	0.18	0.18	0.17	0.19	0.17

This table shows the mean level of pre-treatment covariates (political ideology, gender, age, education, region, mother tongue) across each of the pre- and post-attack periods corresponding to each point shown in the figures in the article.

C   Main regression result tables

In the article, we provide point estimates from regression results that estimate the effects of the Paris terrorist attacks on emotions and attitudes toward Syrian refugees, and the public's expressed willingness to contact a Member of Parliament about Syrian refugee resettlement. In this section, we provide the corresponding complete regression tables: Table A4 presents the results for the emotion and threat indexes; Table A5, the results regarding support for Syrian refugee resettlement; and Table A6 the results regarding willingness to contract an MP about resettlement. To estimate the magnitude of these effects, we fit models to each outcome using data collected within 2 days of the attacks.

Multiple comparisons corrections.   Because the article examines the effects of the Paris terrorist attacks on multiple attitudinal and emotional outcomes, we also investigate the extent to which the results are sensitive to a test for multiple comparisons. Fortunately, the relatively large sample size of the survey provides us with precise estimates for hypothesis testing. We use a conservative testing framework (a Bon Ferroni correction) to examine the extent to which our estimates are sensitive to a correction for multiple comparisons. They are not. With the exception of the average effect of the attacks on willingness to contact an MP, each of the results is highly robust to a multiple comparisons correction: anxiety ($p^{(adj.)} < 0.001$), security threat perceptions ($p^{(adj.)} < 0.001$), cultural threat perceptions ($p^{(adj.)} < 0.05$), support for refugee resettlement ($p^{(adj.)} < 0.001$), and willingness to contact an MP among resettlement's opponents ($p^{(adj.)} < 0.001$).

Table A4: Emotions and perceptions of threat OLS regression results

	Anxiety (1)	Sympathy (2)	Security threat (3)	Cultural threat (4)
Paris attacks	0.256***	−0.018	0.391***	0.190***
	(0.054)	(0.049)	(0.054)	(0.051)
Female	0.053	0.268***	0.031	−0.118*
	(0.053)	(0.048)	(0.052)	(0.049)
Age 30-39	0.097	−0.067	0.245**	0.121
	(0.087)	(0.079)	(0.091)	(0.085)
Age 40-49	0.012	0.212*	0.096	0.011
	(0.095)	(0.086)	(0.098)	(0.091)
Age 50-64	0.033	0.211**	0.126	0.101
	(0.081)	(0.074)	(0.081)	(0.075)
Age 65+	0.115	0.177*	0.218*	0.141
	(0.083)	(0.076)	(0.085)	(0.080)
College	0.208*	−0.180*	0.023	−0.049
	(0.086)	(0.078)	(0.084)	(0.079)
University degree	−0.177*	0.189**	−0.322***	−0.328***
	(0.075)	(0.068)	(0.074)	(0.070)
Francophone	0.147	−0.087	0.027	0.0001
	(0.092)	(0.084)	(0.100)	(0.094)
Other language	−0.006	−0.086	0.020	0.008
	(0.085)	(0.077)	(0.087)	(0.081)
Ontario	0.207	−0.258*	0.166	0.262**
	(0.121)	(0.110)	(0.108)	(0.101)
Quebec	0.114	−0.435***	0.278*	0.503***
	(0.136)	(0.124)	(0.129)	(0.121)
West	0.157	−0.297**	0.041	0.253*
	(0.122)	(0.111)	(0.109)	(0.102)
Political ideology	0.198***	−0.140***	0.213***	0.188***
	(0.011)	(0.010)	(0.011)	(0.010)
Intercept	−0.978***	0.591***	−0.996***	−0.917***
	(0.147)	(0.134)	(0.143)	(0.134)
N	1,673	1,673	1,801	1,803

Survey data used in each regression model are those collected within 2 days before and after the attacks. Standard errors in parentheses. $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table A5: Support for refugee resettlement ordinal logistic regression results

	Coef	SE
Paris attacks	−0.284***	(0.070)
Female	0.187**	(0.068)
Age 30-39	−0.223	(0.116)
Age 40-49	0.078	(0.125)
Age 50-64	0.087	(0.105)
Age 65+	−0.028	(0.109)
College	−0.194	(0.108)
University degree	0.426***	(0.096)
Francophone	−0.265*	(0.122)
Other language	−0.283**	(0.109)
Ontario	−0.544***	(0.160)
Quebec	−0.916***	(0.180)
West	−0.538***	(0.161)
Political ideology	−0.387***	(0.016)
κ_1	−5.285***	(0.219)
κ_2	−4.570***	(0.213)
κ_3	−4.098***	(0.210)
κ_4	−3.246***	(0.205)
κ_5	−2.018***	(0.201)
N	3,548	

Survey data included in the regression model are those collected within 2 days of the attacks. *p < .05; **p < .01; ***p < .001

D   Willingness to contact an MP about resettlement across time

For reasons of space, we did not include in the main article a graph of respondents' willingness to contact their Member of Parliament about Syrian refugee resettlement over time. This graph is presented in Figure A2. Unlike data shown in Figures 1, 2 and 3 that show analogous graphs for the attitudinal and emotional outcomes, the effect of the attacks on the public's willingness to contact a political representative concerning refugee resettlement is less visually apparent. As noted in the article, a model that includes pre-treatment covariates provides evidence that the Paris attacks increased the probability of expressing willingness to contact an

Table A6: Willingness to contact MP regarding resettlement logistic regression results

	Willingness to contact MP			
	(1) Within 2 days of attacks	(2) Before attacks	(3) After attacks	(4) Within 2 days of attacks
Paris attacks	0.157*			0.051
	(0.079)			(0.087)
Oppose refugees		0.149	0.522***	0.020
		(0.206)	(0.123)	(0.192)
Oppose refugees × Paris attacks				0.558*
				(0.218)
Female	0.180*	0.178	0.190*	0.185*
	(0.076)	(0.140)	(0.091)	(0.076)
Age 30-39	0.137	−0.174	0.248	0.113
	(0.131)	(0.242)	(0.158)	(0.132)
Age 40-49	0.437**	0.527*	0.413*	0.444**
	(0.141)	(0.261)	(0.169)	(0.142)
Age 50-64	0.447***	0.243	0.546***	0.452***
	(0.118)	(0.217)	(0.143)	(0.119)
Age 65+	0.500***	0.405	0.545***	0.498***
	(0.123)	(0.229)	(0.147)	(0.123)
College	0.054	0.104	0.023	0.053
	(0.123)	(0.223)	(0.150)	(0.124)
University degree	−0.062	0.073	−0.054	−0.012
	(0.109)	(0.196)	(0.133)	(0.110)
Francophone	−0.496***	−0.219	−0.713***	−0.513***
	(0.144)	(0.249)	(0.181)	(0.145)
Other language	−0.377**	−0.517*	−0.336*	−0.387**
	(0.122)	(0.226)	(0.147)	(0.123)
Ontario	−0.145	0.025	−0.227	−0.165
	(0.155)	(0.300)	(0.183)	(0.156)
Quebec	−1.383***	−1.376***	−1.350***	−1.404***
	(0.187)	(0.346)	(0.226)	(0.188)
West	−0.129	0.161	−0.253	−0.145
	(0.156)	(0.304)	(0.184)	(0.157)
Political ideology	−0.050**	−0.126***	−0.055**	−0.077***
	(0.016)	(0.034)	(0.021)	(0.018)
Intercept	0.001	0.149	0.115	0.102
	(0.203)	(0.370)	(0.233)	(0.206)
N	3,551	1,134	2,408	3,542

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

Figure A2: Willingness to contact Member of Parliament across time
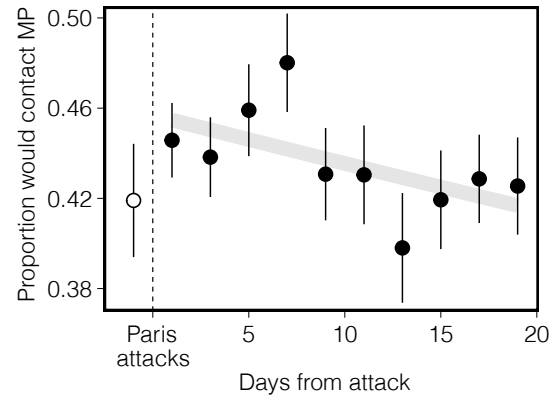
Each point represents a two-day average, with 90% confidence intervals.

MP regarding Syrian refugee resettlement (p < 0.04). Although the regression-adjusted estimate of the average treatment effect is significant, evidence from the unadjusted difference (as is evident in Figure A2) is weaker (p = 0.15). The estimated difference between the responses of supporters and opponents of refugee resettlement to the attacks, however, is highly robust to the inclusion or exclusion or pre-treatment covariates.

E Robustness check concerning the timing of survey completion

In this section, we conduct a robustness check on our results by excluding respondents in each daily sample who did not respond to the survey within a day of survey invitation. The vast majority of respondents who received and completed the survey immediately before or immediately after the attacks responded to the survey within a day of survey receipt (95%). Tables A7, A8, and A9 present the main regression results from the article. Each table allows us to compare model results from the full sample to those from the subset of respondents who responded within a day of survey receipt. In each table, the results are effectively identical, with no substantive or meaningful statistical differences.

Table A7: Emotions and perceptions of threat OLS regression results

	Anxiety		Sympathy		Security threat		Cultural threat		Economic threat	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Paris attacks	0.256***	0.277***	−0.018	−0.042	0.391***	0.405***	0.190***	0.192***	0.080	0.079
	(0.054)	(0.055)	(0.049)	(0.050)	(0.054)	(0.055)	(0.051)	(0.052)	(0.049)	(0.051)
Female	0.053	0.073	0.268***	0.271***	0.031	0.031	−0.118*	−0.113*	0.087	0.091
	(0.053)	(0.053)	(0.048)	(0.049)	(0.052)	(0.054)	(0.049)	(0.050)	(0.048)	(0.049)
Age 30-39	0.097	0.094	−0.067	−0.067	0.245**	0.215*	0.121	0.094	0.258**	0.242**
	(0.087)	(0.088)	(0.079)	(0.080)	(0.091)	(0.092)	(0.085)	(0.087)	(0.083)	(0.085)
Age 40-49	0.012	0.009	0.212*	0.208*	0.096	0.115	0.011	0.022	0.066	0.060
	(0.095)	(0.096)	(0.086)	(0.088)	(0.098)	(0.101)	(0.091)	(0.094)	(0.089)	(0.092)
Age 50-64	0.033	0.026	0.211**	0.229**	0.126	0.129	0.101	0.106	0.044	0.048
	(0.081)	(0.082)	(0.074)	(0.075)	(0.081)	(0.082)	(0.075)	(0.077)	(0.074)	(0.076)
Age 65+	0.115	0.092	0.177*	0.179*	0.218**	0.224**	0.141	0.144	0.082	0.054
	(0.083)	(0.084)	(0.076)	(0.077)	(0.081)	(0.087)	(0.080)	(0.082)	(0.078)	(0.080)
College	0.208*	0.180*	−0.180*	−0.186*	0.023	0.030	−0.049	−0.037	−0.087	−0.064
	(0.086)	(0.087)	(0.078)	(0.080)	(0.084)	(0.085)	(0.079)	(0.080)	(0.077)	(0.078)
University degree	−0.177*	−0.186*	0.189**	0.179*	−0.322***	−0.301***	−0.328***	−0.309***	−0.360***	−0.355***
	(0.075)	(0.076)	(0.068)	(0.069)	(0.074)	(0.075)	(0.070)	(0.071)	(0.068)	(0.069)
Francophone	0.147	0.161	−0.087	−0.080	0.027	0.055	0.0001	0.013	−0.049	−0.032
	(0.092)	(0.095)	(0.084)	(0.086)	(0.100)	(0.102)	(0.094)	(0.096)	(0.092)	(0.094)
Other language	−0.006	0.043	−0.086	−0.080	0.020	0.046	0.008	0.029	−0.041	−0.011
	(0.085)	(0.086)	(0.077)	(0.078)	(0.087)	(0.088)	(0.081)	(0.083)	(0.079)	(0.081)
Ontario	0.207	0.151	−0.258*	−0.272*	0.166	0.205	0.262**	0.300**	0.287**	0.314**
	(0.121)	(0.123)	(0.110)	(0.114)	(0.108)	(0.110)	(0.101)	(0.103)	(0.098)	(0.100)
Quebec	0.114	0.043	−0.435***	−0.449***	0.278*	0.327*	0.503***	0.544***	0.348**	0.362**
	(0.136)	(0.140)	(0.124)	(0.129)	(0.129)	(0.131)	(0.121)	(0.123)	(0.118)	(0.120)
West	0.157	0.123	−0.297**	−0.305**	0.041	0.077	0.253*	0.295**	0.289**	0.316**
	(0.122)	(0.124)	(0.111)	(0.115)	(0.109)	(0.111)	(0.102)	(0.104)	(0.099)	(0.101)
Political ideology	0.198***	0.201***	−0.140***	−0.142***	0.213***	0.214***	0.188***	0.187***	0.191***	0.191***
	(0.011)	(0.011)	(0.010)	(0.010)	(0.011)	(0.011)	(0.010)	(0.011)	(0.010)	(0.010)
Intercept	−0.978***	−0.947***	0.591***	0.621***	−0.996***	−1.065***	−0.917***	−0.975***	−0.937***	−0.967***
	(0.147)	(0.149)	(0.134)	(0.137)	(0.143)	(0.146)	(0.134)	(0.137)	(0.131)	(0.134)
Respondents who responded within a day of receiving survey		✓		✓		✓		✓		✓
N	1,673	1,633	1,673	1,624	1,801	1,711	1,803	1,712	1,804	1,714

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses.

*p < .05; **p < .01; ***p < .001

Table A8: Support for refugee resettlement before and after Paris terrorist attacks

	Support for resettlement	
	(1)	(2)
Paris attacks	−0.284***	−0.306***
	(0.070)	(0.071)
Female	0.187**	0.185**
	(0.068)	(0.070)
Age 30-39	−0.223	−0.200
	(0.116)	(0.118)
Age 40-49	0.078	0.081
	(0.125)	(0.129)
Age 50-64	0.087	0.084
	(0.105)	(0.107)
Age 65+	−0.028	−0.034
	(0.109)	(0.111)
College	−0.194	−0.185
	(0.108)	(0.110)
University degree	0.426***	0.429***
	(0.096)	(0.098)
Francophone	−0.265*	−0.283*
	(0.122)	(0.125)
Other language	−0.283**	−0.319**
	(0.109)	(0.112)
Ontario	−0.544***	−0.534**
	(0.160)	(0.163)
Quebec	−0.916***	−0.902***
	(0.180)	(0.185)
West	−0.538***	−0.540**
	(0.161)	(0.164)
Political ideology	−0.387***	−0.391***
	(0.016)	(0.016)
κ_1	−5.285***	−5.316***
	(0.219)	(0.224)
κ_2	−4.570***	−4.595***
	(0.213)	(0.217)
κ_3	−4.098***	−4.115***
	(0.210)	(0.214)
κ_4	−3.246***	−3.269***
	(0.205)	(0.210)
κ_5	−2.018***	−2.055***
	(0.201)	(0.205)
Respondents who responded within a day of receiving survey		✓
N	3,548	3,383

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

Table A9: Willingness to contact MP regarding resettlement logistic regression results

	(1) Within 2 days of attacks	(2) Within 2 days of attacks	(3) Before attacks	(4) Before attacks	(5) After attacks	(6) After attacks	(7) Within 2 days of attacks	(8) Within 2 days of attacks
	Willingness to contact MP		**Willingness to contact MP regarding Syrian refugee resettlement**					
Paris attacks	0.157*	0.163*					0.051	0.064
	(0.079)	(0.081)					(0.087)	(0.088)
Oppose refugees			0.149	0.182	0.522***	0.492***	0.020	0.043
			(0.206)	(0.209)	(0.123)	(0.126)	(0.192)	(0.195)
Female	0.180*	0.189*	0.178	0.203	0.190*	0.194*	0.185*	0.194*
	(0.076)	(0.078)	(0.140)	(0.142)	(0.091)	(0.093)	(0.076)	(0.078)
Age 30-39	0.137	0.125	−0.174	−0.114	0.248	0.214	0.113	0.105
	(0.131)	(0.133)	(0.242)	(0.244)	(0.158)	(0.160)	(0.132)	(0.134)
Age 40-49	0.437**	0.435**	0.527*	0.587*	0.413*	0.379*	0.444**	0.443**
	(0.141)	(0.144)	(0.261)	(0.264)	(0.169)	(0.174)	(0.142)	(0.145)
Age 50-64	0.447***	0.481***	0.243	0.295	0.546***	0.573***	0.452***	0.485***
	(0.118)	(0.120)	(0.217)	(0.220)	(0.143)	(0.145)	(0.119)	(0.121)
Age 65+	0.500***	0.546***	0.405	0.438	0.545***	0.597***	0.498***	0.544***
	(0.123)	(0.125)	(0.229)	(0.233)	(0.147)	(0.150)	(0.123)	(0.126)
College	0.054	0.053	0.104	0.079	0.023	0.027	0.053	0.050
	(0.123)	(0.125)	(0.223)	(0.226)	(0.150)	(0.153)	(0.124)	(0.126)
University degree	−0.062	−0.045	0.073	0.089	−0.054	−0.040	−0.012	0.003
	(0.109)	(0.110)	(0.196)	(0.198)	(0.133)	(0.136)	(0.110)	(0.111)
Francophone	−0.496***	−0.516***	−0.219	−0.244	−0.713***	−0.739***	−0.513***	−0.536***
	(0.144)	(0.148)	(0.249)	(0.251)	(0.181)	(0.187)	(0.145)	(0.149)
Other language	−0.377**	−0.409***	−0.517*	−0.525*	−0.336*	−0.376*	−0.387**	−0.422***
	(0.122)	(0.124)	(0.226)	(0.227)	(0.147)	(0.151)	(0.123)	(0.125)
Ontario	−0.145	−0.100	0.025	0.074	−0.227	−0.182	−0.165	−0.119
	(0.155)	(0.159)	(0.300)	(0.303)	(0.183)	(0.188)	(0.156)	(0.159)
Quebec	−1.383***	−1.293***	−1.376***	−1.300***	−1.350***	−1.244***	−1.404***	−1.313***
	(0.187)	(0.192)	(0.346)	(0.348)	(0.226)	(0.233)	(0.188)	(0.193)
West	−0.129	−0.106	0.161	0.184	−0.253	−0.228	−0.145	−0.122
	(0.156)	(0.160)	(0.304)	(0.308)	(0.184)	(0.189)	(0.157)	(0.161)
Political ideology	−0.050**	−0.049**	−0.126***	−0.125***	−0.055**	−0.053*	−0.077***	−0.075***
	(0.016)	(0.016)	(0.034)	(0.034)	(0.021)	(0.021)	(0.018)	(0.018)
Oppose refugees × Paris attacks							0.558*	0.507*
							(0.218)	(0.222)
Intercept	0.001	−0.065	0.149	0.055	0.115	0.067	0.102	0.033
	(0.203)	(0.207)	(0.370)	(0.373)	(0.233)	(0.239)	(0.206)	(0.210)
Respondents who responded within a day of receiving survey		✓		✓		✓		✓
N	3,551	3,386	1,134	1,099	2,408	2,278	3,542	3,377

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

F   Anxiety index results including anger indicator

As noted in Appendix A, we excluded 'anger' as a component of the anxiety index. It is nevertheless useful to examine whether its inclusion would affect the results. It does not. As we show in Table A10, the effect of the attacks on anxiety is effectively equivalent whether the 'anger' indicator is excluded from or included in the anxiety index. Furthermore, the Cronbach's α for the anxiety index including and excluding 'anger' are equivalent ($\alpha_{\text{w/ anger}}$ = 0.93, $\alpha_{\text{w/o anger}}$ = 0.93). Lastly, as the regression model in the third column of Table A10 shows, the effect of the attacks on reported levels of anger about the presence of Syrian refugees (i.e. not as part of the index) is substantively equivalent to results from the regression results in which it is included as part of the anxiety index.

Table A10: Comparison of OLS regression results including and excluding anger indicator in anxiety index

	Anxiety index (excl. anger) (1)	Anxiety index (incl. anger) (2)	Anger (not in index) (3)
Paris attacks	0.256***	0.258***	0.193***
	(0.054)	(0.054)	(0.054)
Female	0.053	0.049	−0.006
	(0.053)	(0.052)	(0.052)
Age 30-39	0.097	0.093	0.050
	(0.087)	(0.087)	(0.087)
Age 40-49	0.012	−0.005	−0.024
	(0.095)	(0.094)	(0.095)
Age 50-64	0.033	0.027	−0.010
	(0.081)	(0.080)	(0.080)
Age 65+	0.115	0.095	0.066
	(0.083)	(0.082)	(0.082)
College	0.208*	0.174*	0.125
	(0.086)	(0.085)	(0.085)
University degree	−0.177*	−0.194**	−0.176*
	(0.075)	(0.074)	(0.074)
Francophone	0.147	0.126	0.005
	(0.092)	(0.092)	(0.092)
Other language	−0.006	0.036	0.104
	(0.085)	(0.084)	(0.084)
Ontario	0.207	0.216	0.158
	(0.121)	(0.120)	(0.120)
Quebec	0.114	0.119	0.127
	(0.136)	(0.135)	(0.136)
West	0.157	0.169	0.153
	(0.122)	(0.120)	(0.121)
Political ideology	0.198***	0.200***	0.164***
	(0.011)	(0.011)	(0.011)
Intercept	−0.978***	−0.978***	−0.762***
	(0.147)	(0.146)	(0.147)
N	1,673	1,698	1,712

Survey data used in each regression are those collected within 2 days before and after the attacks. *p < .05; **p < .01; ***p < .001

G   Causal mechanisms and sensitivity analysis

In the article, we focus on the direct effects of the Paris terrorist attacks on perceptions of threat and emotions toward Syrian refugees. These threats and emotions can also be expected to be the mechanisms through which the attacks affected support for Syrian refugee resettlement. In this section, we provide an exploratory analysis by examining threat perceptions and emotions as mechanisms through which the attacks caused a decrease in support for resettlement. To do so, we turn to recent advancements in methods for the study of causal mechanisms (Imai et al., 2011; Imai, Tingley and Yamamoto, 2013).

Definition and estimation.   A causal mechanism represents the process through which a causal variable affects an outcome (Imai et al., 2011, 765). The basic set up for a single mechanism can be diagrammed as follows:

$$
\begin{array}{ccc}
 & M_i & \\
 \nearrow & & \searrow \\
T_i \longrightarrow & & Y_i \ ,
\end{array}
$$
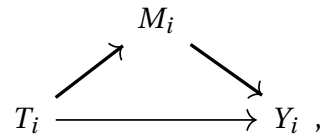
where T_i denotes treatment status, M_i denotes the mechanism of interest, and Y_i denotes the outcome. The goal of causal mechanisms analysis is to decompose the effect of a treatment into the effect that operates through a causal mediator of interest (i.e. $T_i \rightarrow M_i \rightarrow Y_i$) and that which operates through other channels (i.e. $T_i \rightarrow Y_i$).[12]

   To calculate the average causal mediation effect (ACME), we use the two-step procedure proposed by Imai et al. (2011).[13] In the first step, two regression models are fit to the data:

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[12]A causal mediation effect can be formally defined, using potential outcomes notation (Rubin, 1974), as follows:

$$\tau_i \equiv Y_i(t, M_i(1)) - Y_i(t, M_i(0)), \tag{A2}$$

where $M_i(t)$ denotes the potential value of the mediator for individual i under treatment status $t \in \{0, 1\}$, and $Y_i(t, m)$ denotes the potential value of the outcome when the treatment status and mediator are set to t and m respectively. As Equation A2 indicates, the causal mediation effect represents the difference in the effect of the treatment, holding the value of the treatment constant, and manipulating the value of the mediator as would be realized under conditions $t = 1$ and $t = 0$. For further details, see Imai et al. (2011) and Imai, Tingley and Yamamoto (2013).

[13]All results provided in this section were generated using the statistical package `mediation` (Tingley et al., 2014).

first, the mediator is modeled as a function of the treatment and pre-treatment covariates; second, the outcome (i.e. support for refugee resettlement) is modeled as a function of the mediator, treatment, and pre-treatment covariates. In the next step, these fitted models are used to predict support for refugee resettlement, first by using the predicted values of the mediator under the treatment condition, and then under the control condition, holding all other variables constant. To calculate the average causal mediation effect, we then take the average in the difference in these two predicted outcomes.

In the following, we examine anxiety, sympathy, and security and cultural threat as causal mechanisms. Because two independent branches of the survey were used to capture the two sets of mechanisms (threat and emotion), the models are fit to the relevant subset of the sample collected within 2 days of the attacks. First-stage regression models are those presented in Table A4; those for the second stage, in Table A11.

Before examining the results, we note that causal mediation analysis relies on what is generally deemed a strong assumption called "sequential ignorability" (see Imai et al., 2011; Imai, Tingley and Yamamoto, 2013). This assumption requires first that treatment assignment is ignorable: that treatment status is independent of the potential outcome and potential mediator. Fortunately, this assumption can be satisfied by design if the treatment is randomly assigned as in an experiment, or as-if so, as in a natural experiment. The second assumption is that the mediator is ignorable conditional on pre-treatment covariates and treatment status: that the relationship between the mediator and outcome of interest is not confounded. This second assumption is more difficult to satisfy because the mediator is not assigned at random, and unconfoundedness cannot be assured. To make this second assumption plausible, in the second-stage regression, which models the effect of the mediator on support for refugee resettlement, we include pre-treatment covariates for all socio-demographics and political ideology. By example, if ideology were omitted and affects both the mediator (e.g. anxiety toward refugees) and support for refugees, the assumption of sequential ignorablity would be violated. It is possible, however, that there are remaining omitted unknown confounders (the

reason the sequential ignorability assumption is considered strong). Although this possibility cannot be addressed directly, we can assess through a sensitivity analysis (Imai et al., 2011) for each mechanism the strength that an omitted confounder would need to be to overturn our results. We thus provide a sensitivity analysis for each causal mechanism after we discuss our results.

Causal mechanism results. Table A12 presents estimates of the effect of the Paris attacks on support for refugee resettlement that operate through each mechanism. As the table shows, the model provides evidence that the Paris attacks decreased support for refugee resettlement by increasing the public's anxiety about the presence of refugees: the attacks are estimated to have caused a 3.1 percentage point decrease (95% CI: -4.5, -1.9)[14] in support for refugee resettlement by increasing anxiety about the presence of refugees. There is little evidence, on the other hand, that the attacks decreased support for refugee resettlement by decreasing sympathy for refugees themselves.

Turning to the threat measures, we find strong evidence that the effect of the attacks on support for refugee resettlement operated through respondents' concerns about security. The Paris attacks are estimated to have caused a 5.9 percentage point decrease (95% CI: -7.5, -4.4) in support for refugee resettlement by increasing the public's concerns over perceptions of the security threat posed by refugees.[15] An important caveat is that although both anxiety and security appear to be substantial mechanisms through which the Paris attacks operated on public attitudes toward refugee resettlement, these mechanisms may be strongly linked within a longer causal chain, whereby terrorism affects security concerns which in turn affects anxiety or vice versa. However, because the survey was not designed to untangle this relationship and used two independent branches to measure emotion and threat, we cannot investigate this more complex relationship further. Untangling this and other similar relationships is a difficult,

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[14]Confidence intervals are calculated through non-parametric bootstrapping.

[15]Note that this estimate is larger than the estimated (total) average treatment effect of the attacks. This is because the estimate for the direct effect (that not operating through security concerns) is positive, although not significantly so. Changes operating through the security threat channel, in other words, explain the entirety of the effect on support for resettlement.

Table A11: Second-stage causal mechanism regression models

	Support for refugee resettlement			
	Anxiety (1)	**Sympathy** (2)	**Security** (3)	**Culture** (4)
Index	−1.495***	1.797***	−1.751***	−2.283***
	(0.061)	(0.072)	(0.061)	(0.075)
Paris attacks	0.112	−0.323**	0.155	−0.141
	(0.110)	(0.112)	(0.105)	(0.108)
Female	0.363***	−0.208	0.280**	−0.004
	(0.109)	(0.111)	(0.102)	(0.105)
Age 30-39	−0.030	−0.005	−0.055	−0.236
	(0.175)	(0.183)	(0.178)	(0.183)
Age 40-49	0.046	−0.364	0.144	0.063
	(0.190)	(0.199)	(0.191)	(0.199)
Age 50-64	0.390*	−0.085	0.180	0.207
	(0.163)	(0.168)	(0.159)	(0.164)
Age 65+	0.324	−0.255	0.180	0.069
	(0.168)	(0.173)	(0.167)	(0.170)
College	−0.163	−0.165	−0.009	−0.093
	(0.168)	(0.171)	(0.160)	(0.165)
University degree	0.398**	0.315*	0.257	0.214
	(0.149)	(0.152)	(0.142)	(0.147)
Francophone	−0.327	−0.370	−0.255	−0.233
	(0.184)	(0.190)	(0.191)	(0.198)
Other language	−0.284	−0.121	−0.419*	−0.393*
	(0.173)	(0.177)	(0.166)	(0.172)
Ontario	−0.687*	−0.555	−0.529*	−0.205
	(0.296)	(0.291)	(0.221)	(0.229)
Quebec	−1.200***	−0.617	−0.913***	−0.491
	(0.319)	(0.317)	(0.258)	(0.267)
West	−0.727*	−0.470	−0.692**	−0.251
	(0.296)	(0.292)	(0.222)	(0.231)
Political ideology	−0.177***	−0.260***	−0.183***	−0.216***
	(0.025)	(0.025)	(0.024)	(0.025)
κ_1	−5.769***	−6.563***	−6.265***	−6.869***
	(0.378)	(0.386)	(0.336)	(0.356)
κ_2	−4.675***	−5.453***	−5.132***	−5.550***
	(0.363)	(0.370)	(0.320)	(0.336)
κ_3	−4.115***	−4.871***	−4.178***	−4.450***
	(0.357)	(0.362)	(0.311)	(0.325)
κ_4	−2.953***	−3.728***	−2.467***	−2.587***
	(0.348)	(0.351)	(0.299)	(0.311)
κ_5	−1.097**	−1.832***	−0.630*	−0.588
	(0.340)	(0.340)	(0.292)	(0.303)
N	1,661	1,661	1,795	1,797

Ordinal regression results where the outcome is support for refugee resettlement. Each model is specified with a set of pre-treatment control variables and the causal mechanism of interest. Survey data used in each regression are those collected within 2 days before and after the attacks. κ denote cut-point parameter estimates. *p < .05; **p < .01; ***p < .001

Table A12: Estimates of causal mechanisms

A. Emotion branch

Causal mechanism	ACME	95% CI
Anxiety	-3.1	(-4.5, -1.9)
Sympathy	-0.3	(-1.7, 1.1)
N = 1,673		

B. Threat branch

Causal mechanism	ACME	95% CI
Security threat	-5.9	(-7.5, -4.4)
Cultural threat	-2.7	(-4.1, -1.3)
N = 1,803		

but important empirical question that we leave for future research.

Finally, we estimate the average causal mediation effect of the Paris attacks through cultural threat perceptions. To do so, we use a model that relaxes the assumption of causal independence between security and cultural threat because it is unlikely that perceptions of cultural threat are causally independent of the effect that the attacks have on security concerns. We therefore posit a model whereby the Paris attacks cause an increase in perceptions of security threat, which in turn affect perceptions of cultural threat. To fit this model, we use the estimation procedure proposed by Imai and Yamamoto (2013) that allows one to account for post-treatment confounding. Using this model, the Paris attacks are estimated to have caused a 2.7 percentage point decrease (95% CI: -4.1, -1.3) in support for refugee resettlement by increasing the public's perceptions of refugees as a threat to national culture.[16]

Sensitivity analysis. As noted above, the validity of estimates of average causal mediation effects relies on the sequential ignorability assumption (see Imai, Keele and Yamamoto, 2010; Imai et al., 2011). This assumption states that (1) the potential outcomes of the mediator and of the outcome are independent of treatment status conditional on pre-treatment covariates, and

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[16]If we assume, by contrast, that perceptions of security threat is not a post-treatment confounder, the estimated average causal mediation effect of cultural threat is -3.4 (95% CI: -5.1, -1.7) percentage points.

(2) the potential outcome of the outcome is independent of the observed mediator, conditional on treatment assignment and pre-treatment covariates.[17]

Although the first assumption holds when treatment assignment is randomized (or is plausibly assigned as-if randomly as in a natural experiment), the second assumption cannot be tested with observed data. Imai, Keele and Yamamoto (2010, 60-62) therefore propose a sensitivity analysis procedure to quantify the robustness of average causal mediation effect estimates to the presence of an unobserved pre-treatment confounder. The procedure allows researchers to test the degree to which the sequential ignorability assumption must be violated before the average causal mechanism effect estimate would be zero.

To examine the robustness of our causal mechanism results to an unobserved pre-treatment confounder, we apply this sensitivity analysis procedure for each causal mechanism.[18] Results from this procedure are shown in Figure A3. Each panel presents estimates of the average casual mediation effect in the presence of a confounder that is correlated with the mediator at levels of correlation ρ from -1 to 1. As the figures shows, the average causal mediation effect estimates for anxiety, security, and culture are each robust to the presence of a strong confounder. In each case, the effects are reversed only when an unobserved confounder is very highly correlated with each mediator of interest: $\rho^{(anxiety)} = -0.62$, $\rho^{(security)} = -0.71$, and $\rho^{(culture)} = -0.75$. In sum, each of the average causal mechanism effect estimates appears robust to the presence of unobserved pre-treatment confounders.

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[17]Note that these conditional independence assumptions rely on there not being any *post*-treatment confounders.
[18]Sensitivity analysis results were generated using the library `mediation` (Tingley et al., 2014) in $\mathbb{R}$ (R Core Team, 2017).

Figure A3: Sensitivity analysis for sequential ignorability assumption
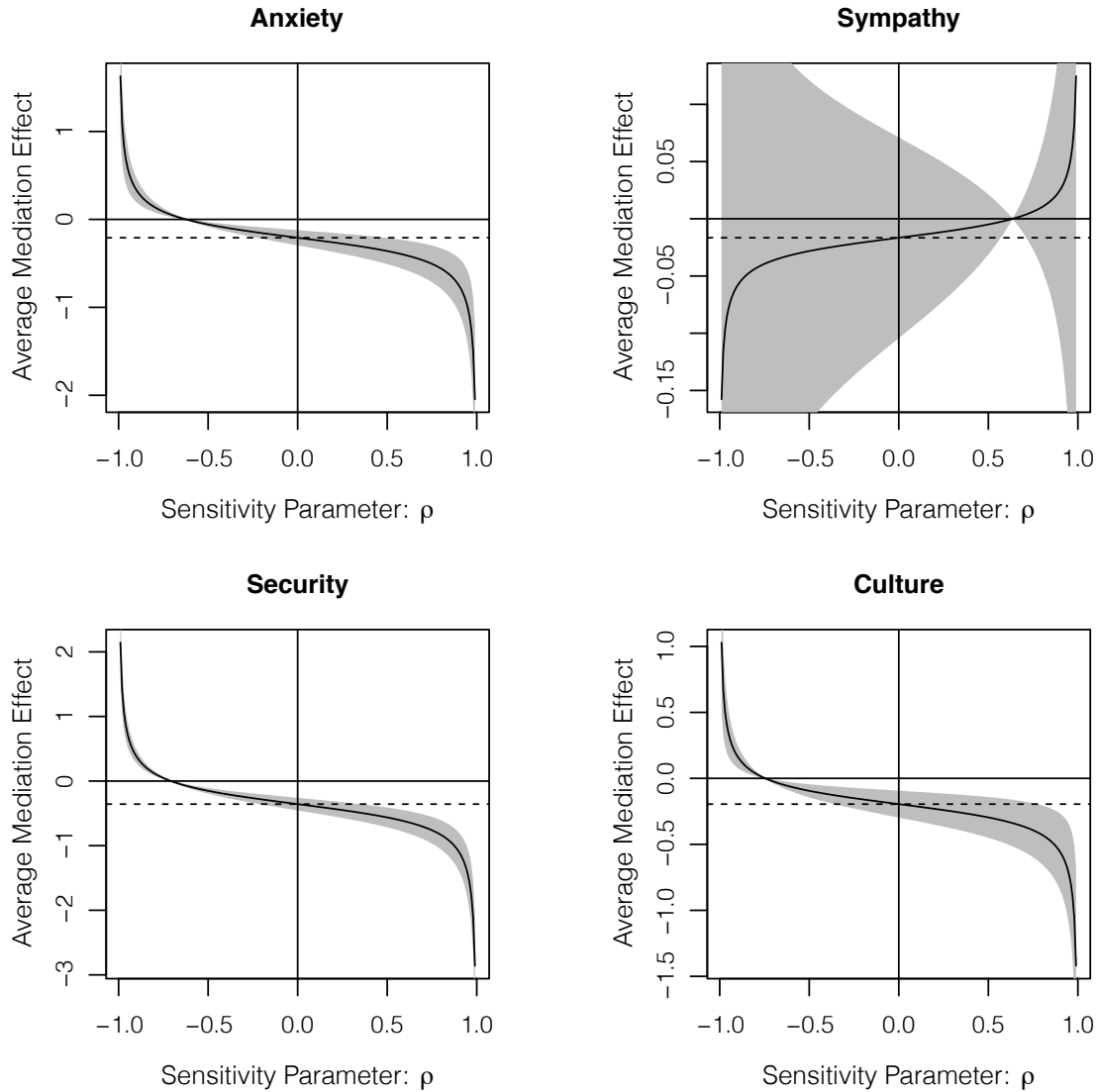
H Economic threat

For completeness, we examine the effect of the attacks on perceptions of Syrian refugees as an economic threat. Theoretically, it is unlikely that large-scale terrorist attacks would provide a meaningful signal to the public concerning the threat to the domestic economy posed by refugee resettlement. Nevertheless, it is possible that terrorist attacks may cause an increase in negative attitudes toward refugees generally. The Paris attacks may therefore also affect

evaluations of seemingly unrelated threats concerning refugees. To investigate this, we examine the economic threat index concerning Syrian refugee resettlement, and, for comparison, two retrospective indicators of economic evaluations unrelated to refugee resettlement, which should not be affected by the attacks otherwise. The latter indicators are questions regarding (1) evaluations of respondents' personal financial circumstances over the past year (worse, same, better), and (2) evaluations of the national economy in the past year (worse, same, better) (for complete question text, see Appendix J).

Data for the economic threat index are presented graphically in Figure A4 and those for the retrospective national economic and personal financial evaluations in Figure A5. As Figure A4 shows, there appears to be a slight increase in perceptions of Syrian refugee resettlement as a threat to the economy. Regression results presented in Table A13 show, however, that the effect of the attacks on economic threat is not statistically significant. The absence of statistical significance does not, of course, mean that the attacks did not affect perceptions of refugees as an economic threat. However, the estimated magnitude of this effect in standardized units ($\beta = 0.08$) is, as one would expect, substantially smaller than that of anxiety ($\beta = 0.26$), and of security ($\beta = 0.39$) and cultural threat ($\beta = 0.19$) (cf. Figures 1 and 2 in article).

By comparison, the two retrospective economic indicators show no meaningful difference between the immediate pre- and post-attack period (p = 0.82; p = 0.16) and demonstrate no clear pattern that would be consistent with an effect that decays in response to the attacks similar to the indicators theoretically related to Syrian refugee resettlement. Although there is more variability in retrospective evaluations of the economy in the weeks after the attacks, we can expect this as a response to economic or related news as a basis for comparison to the previous year's economy.

Table A13: Emotions and perceptions of threat OLS regression results (incl. results on economic threat)

	Anxiety	Sympathy	Security threat	Cultural threat	Economic threat
	(1)	(2)	(3)	(4)	(5)
Paris attacks	0.256***	−0.018	0.391***	0.190***	0.080
	(0.054)	(0.049)	(0.054)	(0.051)	(0.049)
Female	0.053	0.268***	0.031	−0.118*	0.087
	(0.053)	(0.048)	(0.052)	(0.049)	(0.048)
Age 30-39	0.097	−0.067	0.245**	0.121	0.258**
	(0.087)	(0.079)	(0.091)	(0.085)	(0.083)
Age 40-49	0.012	0.212*	0.096	0.011	0.066
	(0.095)	(0.086)	(0.098)	(0.091)	(0.089)
Age 50-64	0.033	0.211**	0.126	0.101	0.044
	(0.081)	(0.074)	(0.081)	(0.075)	(0.074)
Age 65+	0.115	0.177*	0.218*	0.141	0.082
	(0.083)	(0.076)	(0.085)	(0.080)	(0.078)
College	0.208*	−0.180*	0.023	−0.049	−0.087
	(0.086)	(0.078)	(0.084)	(0.079)	(0.077)
University degree	−0.177*	0.189**	−0.322***	−0.328***	−0.360***
	(0.075)	(0.068)	(0.074)	(0.070)	(0.068)
Francophone	0.147	−0.087	0.027	0.0001	−0.049
	(0.092)	(0.084)	(0.100)	(0.094)	(0.092)
Other language	−0.006	−0.086	0.020	0.008	−0.041
	(0.085)	(0.077)	(0.087)	(0.081)	(0.079)
Ontario	0.207	−0.258*	0.166	0.262**	0.287**
	(0.121)	(0.110)	(0.108)	(0.101)	(0.098)
Quebec	0.114	−0.435***	0.278*	0.503***	0.348**
	(0.136)	(0.124)	(0.129)	(0.121)	(0.118)
West	0.157	−0.297**	0.041	0.253*	0.289**
	(0.122)	(0.111)	(0.109)	(0.102)	(0.099)
Political ideology	0.198***	−0.140***	0.213***	0.188***	0.191***
	(0.011)	(0.010)	(0.011)	(0.010)	(0.010)
Intercept	−0.978***	0.591***	−0.996***	−0.917***	−0.937***
	(0.147)	(0.134)	(0.143)	(0.134)	(0.131)
N	1,673	1,673	1,801	1,803	1,804

Survey data used in each regression model are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

Figure A4: Economic threat index across time

Economic Threat
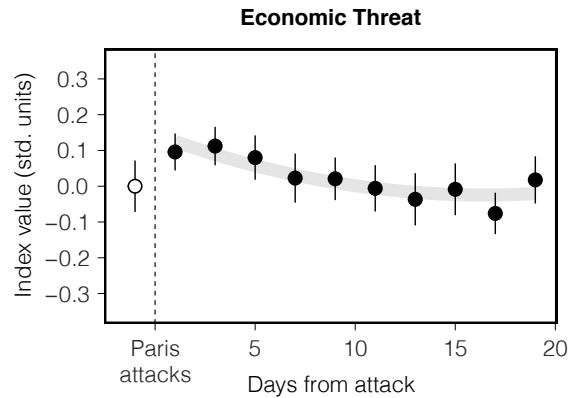
Figure A5: Retrospective economic evaluations across time
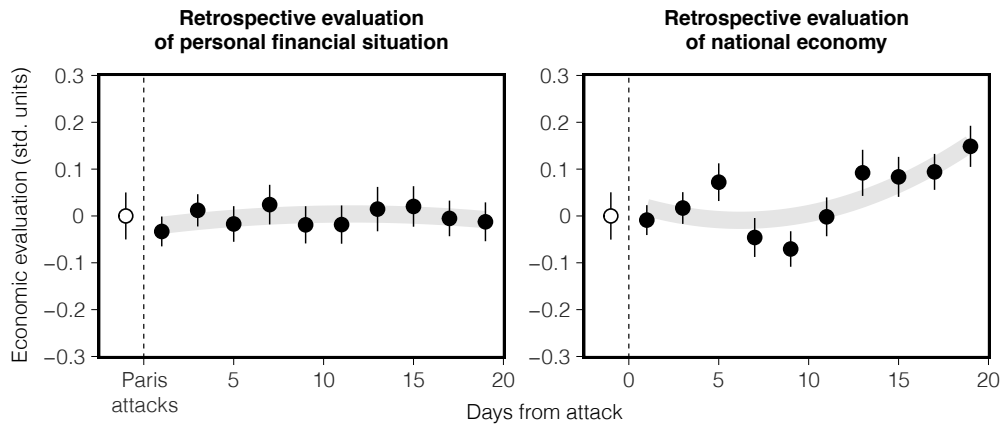
I Moderation by religion / location of resettlement

Because the survey module included survey-experimental conditions that specified the religion of Syrian refugees of interest (Christian, Muslim, or unspecified), and the potential location of resettlement (one's own community, the country more generally), here we examine whether these conditions moderated the effect of the attacks. To test this, we fit regression models equivalent to those presented in Tables A4, A5, and A6, and include an interaction term between each survey-experimental condition and the Paris attacks indicator variable.

Results are presented in Tables A14 thru A19. In each table, Model (1) is equivalent to that shown in the main article for the relevant outcome; Model (2) includes the experimental conditions as controls; and Model (3) includes an interaction term between the experimental

condition and treatment variable to permit examination of each condition as a moderator of the effect of the attacks. In none of the models do we find evidence that the effect of the attacks on each outcome is moderated by the survey-experimental conditions (none of the interaction terms are significant). Furthermore, because the survey design is fully randomized, these conditions are, by design, independent of the timing of the attacks. As a consequence, the estimated effect of the attacks in Models (1) and (2) are effectively equivalent.[19] As a robustness check, we use likelihood ratio tests to statistically examine whether the inclusion of the interaction terms for each outcome are *jointly* significantly different from a model that excludes them (i.e. we compare Models (2) and (3) in each table). For each outcome, the inclusion of the interaction terms does not improve fit (anxiety: $p = 0.61$; sympathy: $p = 0.61$; security threat: $p = 0.42$; cultural threat: $p = 0.11$; support for Syrian refugee resettlement: $p = 0.45$; willingness to contact an MP: $p = 0.89$). In sum, neither the specified religion of Syrian refugees, nor their potential place of settlement in the country moderates the effects of the attacks on any of the outcomes examined.

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[19]Note that the coefficient (and significance) of the `Paris attacks` variable in Model (3) on the first row of Tables A14 thru A19 should not be compared to the coefficients on the same row in Models (1) and (2): in a model with interactions, the so-called "main effect" does not represent the average treatment average (Brambor, Clark and Golder, 2006).

Table A14: Effect of Paris terrorist attacks on anxiety toward Syrian refugees (moderated by religion and location conditions)

	Anxiety		
	(1)	(2)	(3)
Paris attacks	0.256***	0.259***	0.330**
	(0.054)	(0.054)	(0.105)
Condition 1: Christian		−0.172**	−0.162
		(0.062)	(0.105)
Condition 1: Muslim		−0.033	−0.042
		(0.061)	(0.108)
Condition 2: Community		−0.136**	−0.042
		(0.050)	(0.087)
Condition 1: Christian × Paris attacks			−0.018
			(0.129)
Condition 1: Muslim × Paris attacks			0.013
			(0.131)
Condition 2: Community × Paris attacks			−0.140
			(0.106)
Female	0.053	0.053	0.054
	(0.053)	(0.052)	(0.052)
Age 30-39	0.097	0.124	0.124
	(0.087)	(0.087)	(0.087)
Age 40-49	0.012	0.028	0.027
	(0.095)	(0.094)	(0.094)
Age 50-64	0.033	0.046	0.044
	(0.081)	(0.080)	(0.080)
Age 65+	0.115	0.124	0.124
	(0.083)	(0.082)	(0.082)
College	0.208*	0.181*	0.183*
	(0.086)	(0.085)	(0.085)
University degree	−0.177*	−0.177*	−0.176*
	(0.075)	(0.074)	(0.074)
Francophone	0.147	0.130	0.135
	(0.092)	(0.092)	(0.092)
Other language	−0.006	−0.009	−0.009
	(0.085)	(0.084)	(0.084)
Ontario	0.207	0.224	0.224
	(0.121)	(0.119)	(0.119)
Quebec	0.114	0.122	0.120
	(0.136)	(0.135)	(0.135)
West	0.157	0.169	0.169
	(0.122)	(0.120)	(0.120)
Political ideology	0.198***	0.200***	0.200***
	(0.011)	(0.011)	(0.011)
Constant	−0.978***	−0.871***	−0.919***
	(0.147)	(0.151)	(0.163)
N	1,673	1,697	1,697

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table A15: Effect of Paris terrorist attacks on sympathy toward Syrian refugees (moderated by religion and location conditions)

	Sympathy		
	(1)	(2)	(3)
Paris attacks	−0.018	−0.010	0.091
	(0.049)	(0.049)	(0.096)
Condition 1: Christian		0.064	0.106
		(0.056)	(0.095)
Condition 1: Muslim		−0.120*	−0.032
		(0.056)	(0.098)
Condition 2: Community		−0.104*	−0.054
		(0.046)	(0.079)
Condition 1: Christian × Paris attacks			−0.066
			(0.118)
Condition 1: Muslim × Paris attacks			−0.129
			(0.119)
Condition 2: Community × Paris attacks			−0.074
			(0.097)
Female	0.268***	0.263***	0.265***
	(0.048)	(0.048)	(0.048)
Age 30-39	−0.067	−0.075	−0.075
	(0.079)	(0.079)	(0.079)
Age 40-49	0.212*	0.220*	0.220*
	(0.086)	(0.086)	(0.086)
Age 50-64	0.211**	0.223**	0.222**
	(0.074)	(0.073)	(0.073)
Age 65+	0.177*	0.185*	0.186*
	(0.076)	(0.075)	(0.075)
College	−0.180*	−0.171*	−0.171*
	(0.078)	(0.077)	(0.077)
University degree	0.189**	0.197**	0.198**
	(0.068)	(0.067)	(0.067)
Francophone	−0.087	−0.078	−0.076
	(0.084)	(0.083)	(0.083)
Other language	−0.086	−0.066	−0.066
	(0.077)	(0.076)	(0.076)
Ontario	−0.258*	−0.256*	−0.254*
	(0.110)	(0.110)	(0.110)
Quebec	−0.435***	−0.439***	−0.436***
	(0.124)	(0.123)	(0.124)
West	−0.297**	−0.286**	−0.283*
	(0.111)	(0.110)	(0.110)
Political ideology	−0.140***	−0.140***	−0.140***
	(0.010)	(0.010)	(0.010)
Constant	0.591***	0.642***	0.574***
	(0.134)	(0.138)	(0.149)
N	1,673	1,688	1,688

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

Table A16: Effect of Paris terrorist attacks on perceptions of security threat regarding Syrian refugees (moderated by religion and location conditions)

	Security threat		
	(1)	(2)	(3)
Paris attacks	0.391***	0.388***	0.263*
	(0.054)	(0.054)	(0.105)
Condition 1: Christian		−0.341***	−0.432***
		(0.061)	(0.109)
Condition 1: Muslim		−0.085	−0.120
		(0.060)	(0.109)
Condition 2: Community		−0.094	−0.189*
		(0.049)	(0.089)
Condition 1: Christian × Paris attacks			0.130
			(0.132)
Condition 1: Muslim × Paris attacks			0.049
			(0.130)
Condition 2: Community × Paris attacks			0.137
			(0.107)
Female	0.031	0.036	0.037
	(0.052)	(0.052)	(0.052)
Age 30-39	0.245**	0.268**	0.270**
	(0.091)	(0.090)	(0.090)
Age 40-49	0.096	0.105	0.101
	(0.098)	(0.097)	(0.097)
Age 50-64	0.126	0.139	0.139
	(0.081)	(0.080)	(0.080)
Age 65+	0.218*	0.231**	0.231**
	(0.085)	(0.085)	(0.085)
College	0.023	0.026	0.032
	(0.084)	(0.083)	(0.084)
University degree	−0.322***	−0.305***	−0.302***
	(0.074)	(0.074)	(0.074)
Francophone	0.027	0.031	0.036
	(0.100)	(0.099)	(0.099)
Other language	0.020	0.013	0.013
	(0.087)	(0.086)	(0.086)
Ontario	0.166	0.160	0.159
	(0.108)	(0.107)	(0.107)
Quebec	0.278*	0.270*	0.271*
	(0.129)	(0.128)	(0.128)
West	0.041	0.039	0.040
	(0.109)	(0.108)	(0.108)
Political ideology	0.213***	0.210***	0.211***
	(0.011)	(0.011)	(0.011)
Constant	−0.996***	−0.817***	−0.736***
	(0.143)	(0.147)	(0.159)
N	1,801	1,801	1,801

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

Table A17: Effect of Paris terrorist attacks on preceptions of cultural threat regarding Syrian refugees (moderated by religion and location conditions)

	Cultural threat		
	(1)	(2)	(3)
Paris attacks	0.190***	0.185***	0.045
	(0.051)	(0.050)	(0.098)
Condition 1: Christian		−0.262***	−0.413***
		(0.057)	(0.103)
Condition 1: Muslim		0.020	0.009
		(0.056)	(0.102)
Condition 2: Community		0.020	−0.072
		(0.046)	(0.084)
Condition 1: Christian × Paris attacks			0.219
			(0.123)
Condition 1: Muslim × Paris attacks			0.015
			(0.122)
Condition 2: Community × Paris attacks			0.131
			(0.100)
Female	−0.118*	−0.109*	−0.108*
	(0.049)	(0.049)	(0.049)
Age 30-39	0.121	0.135	0.137
	(0.085)	(0.084)	(0.084)
Age 40-49	0.011	0.019	0.013
	(0.091)	(0.091)	(0.091)
Age 50-64	0.101	0.115	0.116
	(0.075)	(0.075)	(0.075)
Age 65+	0.141	0.150	0.149
	(0.080)	(0.079)	(0.079)
College	−0.049	−0.050	−0.043
	(0.079)	(0.078)	(0.078)
University degree	−0.328***	−0.317***	−0.315***
	(0.070)	(0.069)	(0.069)
Francophone	0.0001	0.0002	0.005
	(0.094)	(0.093)	(0.093)
Other language	0.008	0.003	0.006
	(0.081)	(0.081)	(0.081)
Ontario	0.262**	0.249*	0.247*
	(0.101)	(0.100)	(0.100)
Quebec	0.503***	0.487***	0.485***
	(0.121)	(0.120)	(0.120)
West	0.253*	0.246*	0.246*
	(0.102)	(0.101)	(0.101)
Political ideology	0.188***	0.186***	0.187***
	(0.010)	(0.010)	(0.010)
Constant	−0.917***	−0.846***	−0.755***
	(0.134)	(0.139)	(0.149)
N	1,803	1,803	1,803

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

Table A18: Effect of Paris terrorist attacks on support for Syrian refugee resettlement (moderated by religion and location conditions)

	Support for refugee resettlement		
	(1)	(2)	(3)
Paris attacks	−0.284***	−0.277***	−0.092
	(0.070)	(0.070)	(0.135)
Condition 1: Christian		0.315***	0.435**
		(0.080)	(0.139)
Condition 1: Muslim		0.018	0.167
		(0.078)	(0.139)
Condition 2: Community		−0.087	−0.014
		(0.064)	(0.114)
Condition 1: Christian × Paris attacks			−0.179
			(0.169)
Condition 1: Muslim × Paris attacks			−0.219
			(0.168)
Condition 2: Community × Paris attacks			−0.109
			(0.138)
Female	0.187**	0.172*	0.174*
	(0.068)	(0.068)	(0.068)
Age 30-39	−0.223	−0.247*	−0.250*
	(0.116)	(0.116)	(0.116)
Age 40-49	0.078	0.065	0.064
	(0.125)	(0.126)	(0.126)
Age 50-64	0.087	0.075	0.072
	(0.105)	(0.105)	(0.105)
Age 65+	−0.028	−0.042	−0.043
	(0.109)	(0.109)	(0.109)
College	−0.194	−0.181	−0.181
	(0.108)	(0.108)	(0.108)
University degree	0.426***	0.430***	0.430***
	(0.096)	(0.096)	(0.096)
Francophone	−0.265*	−0.245*	−0.248*
	(0.122)	(0.121)	(0.122)
Other language	−0.283**	−0.269*	−0.271*
	(0.109)	(0.109)	(0.109)
Ontario	−0.544***	−0.528***	−0.527***
	(0.160)	(0.160)	(0.160)
Quebec	−0.916***	−0.910***	−0.905***
	(0.180)	(0.180)	(0.180)
West	−0.538***	−0.525**	−0.521**
	(0.161)	(0.161)	(0.161)
Political ideology	−0.387***	−0.390***	−0.391***
	(0.016)	(0.016)	(0.016)
κ_1	−5.285***	−5.238***	−5.117***
	(0.219)	(0.224)	(0.236)
κ_2	−4.570***	−4.519***	−4.397***
	(0.213)	(0.218)	(0.231)
κ_3	−4.098***	−4.044***	−3.923***
	(0.210)	(0.215)	(0.228)
κ_4	−3.246***	−3.186***	−3.064***
	(0.205)	(0.211)	(0.224)
κ_5	−2.018***	−1.953***	−1.830***
	(0.201)	(0.207)	(0.220)
N	3,548	3,548	3,548

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table A19: Effect of Paris terrorist attacks on willingness to contact an MP about refugee resettlement (moderated by religion and location conditions)

	Willingness to contact an MP		
	(1)	(2)	(3)
Paris attacks	0.157*	0.159*	0.110
	(0.079)	(0.079)	(0.156)
Condition 1: Christian		0.009	−0.082
		(0.089)	(0.160)
Condition 1: Muslim		−0.035	−0.104
		(0.089)	(0.162)
Condition 2: Community		−0.013	0.027
		(0.073)	(0.132)
Condition 1: Christian × Paris attacks			0.131
			(0.193)
Condition 1: Muslim × Paris attacks			0.099
			(0.194)
Condition 2: Community × Paris attacks			−0.058
			(0.158)
Female	0.180*	0.183*	0.183*
	(0.076)	(0.076)	(0.076)
Age 30-39	0.137	0.135	0.136
	(0.131)	(0.131)	(0.131)
Age 40-49	0.437**	0.440**	0.441**
	(0.141)	(0.141)	(0.141)
Age 50-64	0.447***	0.446***	0.447***
	(0.118)	(0.118)	(0.118)
Age 65+	0.500***	0.502***	0.500***
	(0.123)	(0.123)	(0.123)
College	0.054	0.058	0.056
	(0.123)	(0.123)	(0.123)
University degree	−0.062	−0.055	−0.056
	(0.109)	(0.109)	(0.109)
Francophone	−0.496***	−0.497***	−0.496***
	(0.144)	(0.144)	(0.144)
Other language	−0.377**	−0.377**	−0.374**
	(0.122)	(0.122)	(0.122)
Ontario	−0.145	−0.144	−0.144
	(0.155)	(0.155)	(0.155)
Quebec	−1.383***	−1.377***	−1.380***
	(0.187)	(0.187)	(0.187)
West	−0.129	−0.124	−0.125
	(0.156)	(0.156)	(0.156)
Political ideology	−0.050**	−0.051**	−0.050**
	(0.016)	(0.016)	(0.016)
Constant	0.001	0.011	0.045
	(0.203)	(0.212)	(0.231)
N	3,551	3,542	3,542

Survey data included in regression models are those collected within 2 days before and after the attacks. Standard errors in parentheses. *p < .05; **p < .01; ***p < .001

J Survey question text

Below we present the wording for each question analyzed in the article.

Received by all respondents:

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The Canadian government is currently considering whether to admit more
refugees from Syria.  Many of these refugees are [(blank), Muslims,
Christians] fleeing from the civil war.
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Received by respondents in the threat branch of the survey (security, values/integration, and economic threat):

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Imagine that these [(blank), Muslim, Christian] refugees are permitted to
settle in your own community.  To what extent would you agree or disagree
with the following:
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- Their presence would be economically costly
- They would increase competition for jobs
- They would help grow the economy

Answer categories:

```
Strong disagree, Somewhat disagree, Slightly disagree, Slightly agree, Somewhat
agree, Strongly agree
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Imagine that these [(blank), Muslim, Christian] refugees are permitted to
settle in your own community.  To what extent would you agree or disagree
with the following:
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- Their values would conflict with those of Canadians
- They would fit well into Canadian society
- They would enrich our culture

Answer categories:

Strong disagree, Somewhat disagree, Slightly disagree, Slightly agree, Somewhat agree, Strongly agree

Imagine that these [(blank), Muslim, Christian] refugees are permitted to settle in your own community. To what extent would you agree or disagree with the following:

- Their presence would pose a threat to national security
- Their presence would lead me to fear for my safety
- Some would have links to terrorism

Answer categories:

Strong disagree, Somewhat disagree, Slightly disagree, Slightly agree, Somewhat agree, Strongly agree

Received by respondents in the emotion branch of the survey (anxiety and sympathy):

Imagine now that these [(blank), Muslim, Christian] refugees are permitted to settle in your own community. To what degree do you feel the following toward them:

- Sympathy
- Indifference

- Compassion

- Sadness

- Distress

Answer categories:

0(None at all), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10(A great deal)

When you think about these [(blank), Muslim, Christian] refugees settling in your community, to what degree do you feel the following:

- Anxiety

- Pride

- Upset

- Worry

- Anger

- Hope

- Fear

Answer categories:

0(None at all), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10(A great deal)

Received by all respondents:

If it were up to you, would you agree or disagree that these [(blank), Muslim, Christian] refugees should be permitted to settle in [Canada / your own community]?

Answer categories:

Strong disagree, Somewhat disagree, Slightly disagree, Slightly agree, Somewhat agree, Strongly agree

Would you consider contacting your Member of Parliament regarding this issue?

Answer categories:

No, Yes

If these [(blank), Muslim, Christian] refugees were permitted to settle in your own community, would you be willing to donate to a program that would help them integrate?

Answer categories:

No, Yes

Questions regarding national economy and personal financial circumstances

Over the past 12 months, do you think Canada's economy has become worse, better, or stayed about the same?

Answer categories:

Worse, Stayed about the same, Better

Over the past 12 months, has your own economic situation and that of your family become better, worse, or stayed about the same?

Answer categories:

Worse, Stayed about the same, Better

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