Does International Terrorism affect Public Attitudes toward Refugees?

Evidence from a Large-scale Natural Experiment

<u>Short title</u>: International Terrorism & Attitudes Toward Refugees

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Abstract: Does international terrorism affect attitudes toward refugees? Does terrorism mobilize the public to pressure legislators to restrict refugee policy? Are these effects long- or short-lived? To answer these questions, this article presents results from a large-scale natural experiment to investigate the effects of the 2015 Islamic State terrorist attacks in Paris on attitudes toward Syrian refugees in a country that is a major recipient of refugees (Canada). The results demonstrate that the attacks increased (1) anxiety over refugee resettlement; (2) perceptions of refugees as a security and cultural threat; and (3) opposition to resettlement. Furthermore, the attacks increased mobilization among resettlement's opponents. Using a large-scale survey (n = 18,634) fielded daily across a three-week period, however, we show that these effects were decidedly short-lived. The findings are highly relevant to our understanding of public reactions to major terrorist attacks, and the responses of political entrepreneurs in their aftermath.

On November 13, 2015, the Syria-based terrorist organization Islamic State perpetrated a series of attacks in the heart of Paris, killing 130 civilians and injuring more than 350. The attacks were the largest in a Western democracy in over a decade. They also coincided, however, with the Syrian refugee crisis, the largest refugee crisis since the end of the Second World War. The attacks would thus tightly intertwine two of the most salient issues in modern international politics: the fight against terrorism and the large-scale resettlement of refugees. In their aftermath, politicians across Europe and North America sought to mobilize opposition to Syrian refugee resettlement by invoking the perceived threat of refugees to national security. Within a week, 30 US governors had voiced opposition to resettlement in their states, and the US House of Representatives had passed legislation suspending the section of the refugee program concerning Syrian and Iraqi refugees. In Canada, Prime Minister Trudeau postponed plans to admit 25,000 Syrian refugees. In Germany, pressure mounted on Chancellor Merkel to end her open-arms refugee policy.

The Paris attacks highlight important, yet empirically challenging, questions about terrorism's effects on attitudes and behaviors concerning refugees. What effects does terrorism have on attitudes and emotions toward refugees from countries linked to terrorism? Does terrorism mobilize pressure on politicians to restrict refugee policy? Are these effects long- or short-lived?

Providing credible causal evidence to answer these questions, however, is difficult. Although recent observational research shows that international terrorism is associated with increases in the salience of migration as an issue abroad (Böhmelt, Bove and Nussio, Forthcoming), evidence of the causal effects on attitudes toward migrants and policy is mixed. Finseraas and Listhaug (2013) show, for example, that the 2008 Mumbai attacks increased fears of terrorism in Europe, but find little evidence of an effect on attitudes toward immigrants. Legewie (2013) shows that the 2002 Bali attacks affected perceptions of immigrants in general, but with evidence in only three of nine countries examined. These and similar quasi-experimental studies are instructive. Yet studies in this area face empirical limitations due to reliance on general-purpose surveys that are in the field at the time of an event. Consequently, our understanding of terrorism's effects on migration-related outcomes remains constrained to a narrow range of attitudes concerning

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broadly defined groups (e.g. immigrants generally). We thus know relatively little about the effects on outcomes concerning the specific groups indirectly linked to terrorist events—those at the center of subsequent policy debates. The absence of rich survey data, furthermore, has limited our ability to comprehensively examine the real-world effects of terrorism on the wide array of attitudes, emotions, and behaviors examined extensively in observational and survey-experimental studies (e.g. Huddy et al., 2005; Merolla and Zechmeister, 2009; Albertson and Gadarian, 2015). In addition to policy attitudes and mobilization, for example, terrorism can be expected to affect perceptions of the threat posed by migrants, and emotions toward refugees and resettlement (Adida, Lo and Platas, 2018). Finally, the sparseness of existing data has clouded our understanding of the duration of terrorism's effects, and thus the potential window of opportunity open to political entrepreneurs in its aftermath. Indeed, survey data are often pooled across wide time intervals, and can lack pre-treatment variable balance (e.g. Legewie, 2013), raising concerns about whether other events or dynamics affect the outcomes of interest, or whether variation across time results from differential survey response.

In this short article, we overcome empirical limitations in existing research by presenting results from a large-scale natural experiment to estimate the effects of the Islamic State terrorist attacks in Paris on a comprehensive set of attitudinal, emotional, and quasi-behavioral outcomes concerning Syrian refugees. The data we use contain an extensive set of questions specific to Syrian refugees that were asked in an exceptionally large national survey (n = 18,634) fielded in Canada—a major recipient of Syrian refugees—less than 48 hours before the attacks, and then each day for three weeks thereafter. These data present a rare opportunity to provide precise causal estimates of the effects of major terrorist attacks on attitudes and emotions toward refugees; mobilization concerning migration policy; and to clearly demonstrate their duration.

Research Design

To estimate the effects of the Islamic State attacks in Paris, we use a natural experiment that arose from the timing of a large post-election study in Canada concerning Syrian refugees. The survey was conducted by the research firm Vox Pop Labs, and fielded by e-mail in independent

daily samples drawn at random from its national database.[1] The survey contained two primary questions regarding (1) support for Syrian refugee resettlement, and (2) willingness to contact an MP about the issue. It further captured 21 indicators to construct indexes of anxiety regarding resettlement ($\alpha = 0.93$); sympathy for Syrian refugees ($\alpha = 0.79$); and perceptions of Syrian refugees as a threat to national security ($\alpha = 0.91$), to culture ($\alpha = 0.81$), and to the economy ($\alpha = 0.64$). The survey was first fielded on November 11, 2015 (n = 1,152). The attacks occurred less than 48 hours later. In light of them, we modified the fielding schedule. The second survey was sent to an independent sample of respondents (n = 2,448) less than 48 hours after the attacks, and to new samples each day for 18 days thereafter to capture effect duration (n = 15,034).

The Paris attacks as natural experiment. Because respondents were drawn at random from the survey firm's database, survey receipt is independent of the timing of the attacks. Respondents were thus, in effect, randomized to receive the survey immediately before (control), immediately after (treatment), or on one of the days in the three weeks thereafter. Due to the exogeneity of the attacks with respect to survey fielding, we treat the attacks as an *as-if* randomly assigned treatment to those who received and responded to the survey within a short time interval (2 days) of the attacks. Daily surveys fielded subsequently are used to examine effect duration.

There are two primary threats to the credibility of our research design for causal inference. The first is that events other than the attacks affected survey responses between the immediate pre- and post-attack periods. There is good reason, however, to expect that this is implausible. First, the attacks occurred outside of any news cycle regarding Syrian refugees or the conflict generally. Second, as noted in the literature, public opinion in such cases is generally slow-moving (e.g. Page and Shapiro, 1992). As we show graphically below, once the effects decay to their pre-attack baseline, we observe little change across time. We assume, therefore, that any differences between the immediate pre- and post-attacks periods result from the attacks, and that if this assumption were violated, bias in our estimates would, at most, be slight.

The second, potentially larger threat to causal inference is differential non-response. Al-

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[1]Details of the survey setup, weighting, and questionnaire are provided in Appendices A and H.

though surveys were fielded daily to random samples of respondents (i.e. the treatment is independent of survey receipt) the composition of the control and treatment groups may differ due to who responds before and after the attacks. There is good reason, however, to reject this as a plausible explanation of any differences in observed outcomes. First, the invitation itself referred to the post-election survey as such and referenced neither the attacks nor refugees, minimizing differential response due to survey content. Second, we show this empirically with extensive pre-treatment balance checks. These show that the immediate pre- and post-attack samples are effectively equivalent and that no pre-treatment covariates individually predict membership in the control or treatment groups. We also test if these covariates *jointly* distinguish these groups. They do not. Likelihood-ratio tests find no evidence that pre-treatment covariates jointly differentiate respondents in (1) the immediate pre- and post-attack samples (p = 0.73); (2) the pre-attack and complete post-attack samples (p = 0.35); or (3) the pre-attack sample and each of the post-attack daily samples. The pre- and post-attack samples, in other words, are statistically equivalent, as expected given (1) random assignment of survey receipt, and (2) absence of differential non-response. Details, including additional equivalence tests for balance, are provided in Appendices A and B. Nevertheless, we also adjust for potential differences in the pre- and post-attack samples by including pre-treatment covariates in our regression models.

Results

To examine the attacks, we both estimate the magnitude of their immediate effects, and visualize their duration by approximating effect decay with a second-degree polynomial regression line.

Anxiety & sympathy. Figure 1 presents raw data of the indexes measuring anxiety concerning Syrian refugee resettlement and sympathy for refugees themselves. The first panel shows that anxiety about refugee resettlement increases sharply in the immediate aftermath of the Paris attacks. This effect, however, rebounds rapidly: within a week and a half, anxiety regarding resettlement returns to its pre-attack baseline. To examine the effect statistically, we regress the anxiety index on an indicator variable representing the post-attack period and pre-treatment covariates, using data collected within 2 days of the attacks. The results show strong evidence

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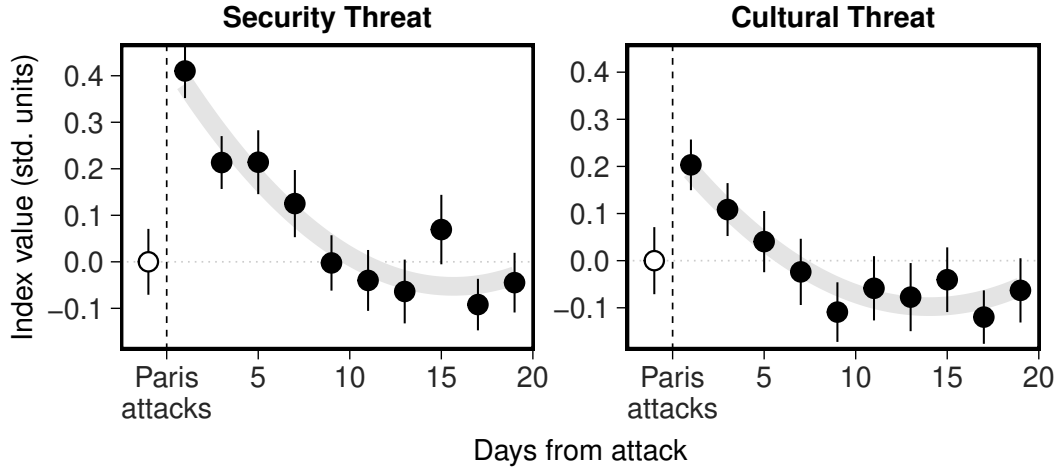Figure 1: Anxiety and sympathy regarding Syrian refugees across time
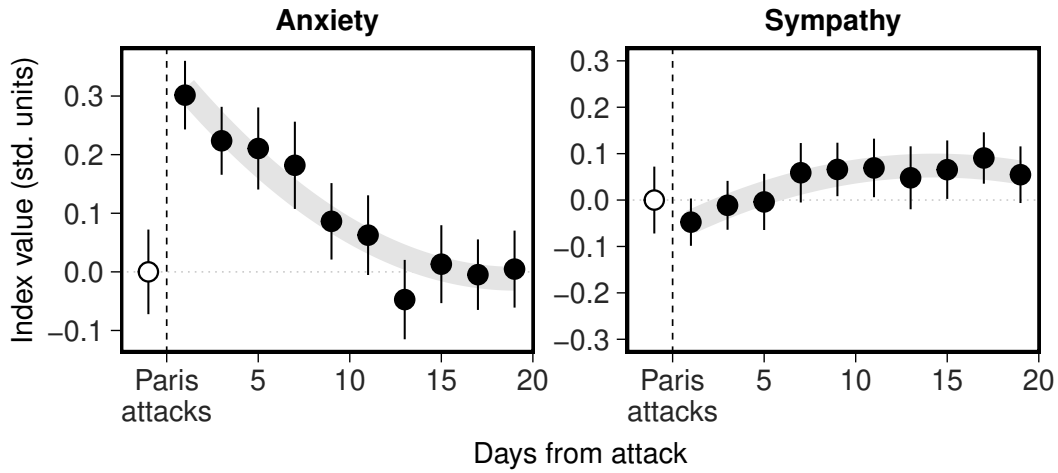
Each point represents a two-day average. Vertical lines represent 90% confidence intervals.

(p < 0.001) that the attacks caused a large increase (β = 0.26 SD) in anxiety about Syrian refugee resettlement (complete regression tables are provided in Appendix C).

In the second panel of Figure 1, we present a similarly clear, albeit substantively different, picture with respect to sympathy for Syrian refugees. In contrast to the pronounced increase in anxiety, we find no clear indication that the attacks meaningfully affected the level of sympathy for refugees themselves. Regression results bear this out (see Appendix C). The estimate of the average effect of the attacks on sympathy for Syrian refugees is neither large (β = -0.02 SD), nor is there strong evidence (p = 0.71) that the average effect is different from zero.

Security and cultural threat. Figure 2 presents the raw data for the two threat indexes. As these figures make clear, the attacks increased perceptions of Syrian refugees as a security and cultural threat, with a particularly sharp increase in security threat perceptions. Yet, similar to the pattern of change in anxiety presented in Figure 1, the effects on threat perceptions rebound rapidly, returning to their pre-attack levels one week after the attacks. To estimate the magnitude of these effects, we fit regression models to each index using data collected within 2 days of the attacks. Consistent with the clear visual pattern in Figure 2, the results (see Appendix C) provide strong evidence that the attacks caused substantial increases in perceptions of refugees both as a threat to security (β = 0.39 SD, p < 0.001) and, less so, to culture (β = 0.19 SD, p < 0.001).

Figure 2: Security and cultural threat regarding Syrian refugees across time

Each point represents a two-day average. Vertical lines represent 90% confidence intervals.

Support for refugee resettlement. Data for the policy outcome, support for refugee resettlement, are presented in the first panel of Figure 3, and make clear visually that the attacks caused a sharp decrease in support for resettlement. In a now-familiar pattern, however, the effect decays rapidly. Within a week of the attacks, support for resettlement rises to its pre-attack level, increasing slightly further in the final week of data collection. To statistically examine the effect, we fit an ordered regression model to data collected within two days of the attacks. The results (see Appendix C) provide strong evidence ($p < 0.001$) that the attacks caused a decrease support for Syrian refugee resettlement. To estimate the magnitude of this effect, we use parameter estimates from the fitted model to calculate the probability of support for resettlement for each respondent in the data, first by setting the treatment indicator to 0 and then to 1. Figure 3 presents results of calculating the average difference in these probabilities. We estimate that the attacks caused a 4.2 percentage point decrease in support for Syrian refugee resettlement, a relatively modest effect, especially given the scale of the attacks.

Political mobilization. Lastly, we estimate the attacks' effect on mobilization around Syrian refugee resettlement as a political issue. As a proxy for mobilization, we examine whether respondents express willingness to contact a Member of Parliament (MP) about the issue. Similar to the outcomes examined above, we find that the attacks increased willingness to contact an MP

Figure 3: Support for refugee resettlement
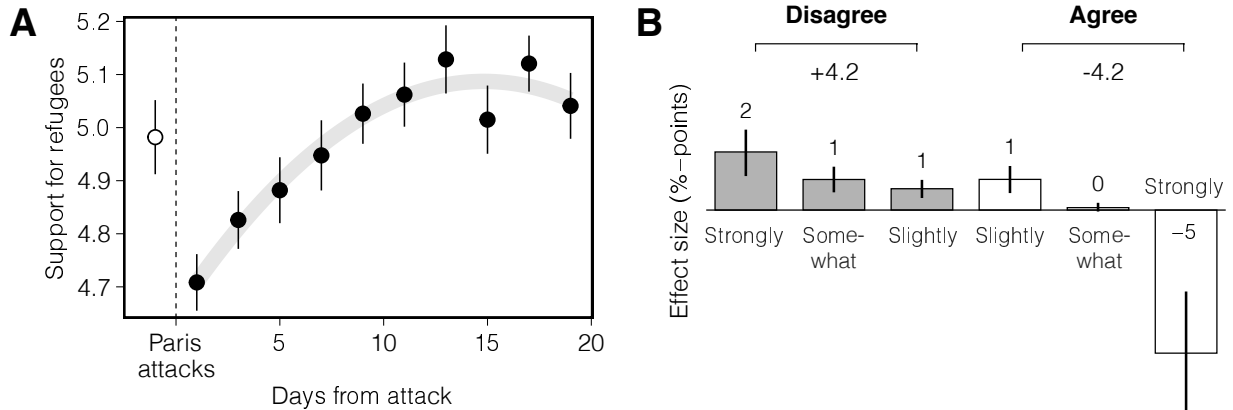
Each point represents a two-day average, with 90% CIs. Response categories regarding favoring Syrian refugee resettlement are coded 1 ("Strongly disagree") thru 6 ("Strongly agree").

about refugee resettlement (for figure, see Appendix D), an effect that decays rapidly to the pre-attack baseline roughly one week after the attacks. To examine this statistically, we fit a logistic regression model to the data collected within two days of the attacks, including pre-treatment covariates. Results from this model (Appendix C), provide evidence that the attacks increased expressed willingness to contact an MP about Syrian refugee resettlement ($p < 0.05$).

Yet, more consequential for our understanding of political responses to terrorism is whether the Islamic State attacks caused *asymmetry* in mobilization among either supporters or opponents of more open refugee policy. To investigate this, we first descriptively compare mobilization before and after the attacks among resettlement's supporters and opponents, after which we apply the procedure proposed by Acharya, Blackwell and Sen (2016) to adjust our estimates for the fact that attitudes toward resettlement policy is a post-treatment measure. Results from the descriptive comparison and de-biasing procedure are nevertheless substantively equivalent.

To examine differences in mobilization, we fit two logistic regression models to the data: the first to evaluate differences in willingness to contact an MP between resettlement's opponents and supporters immediately before the attacks; the second, differences immediately afterward. Before the attacks, we find no evidence that expressed willingness to contact an MP about resettlement differed between resettlement's opponents or supporters ($p = 0.47$) (see Appendix C).

Figure 4: Willingness to contact an MP regarding resettlement before and after Paris attacks
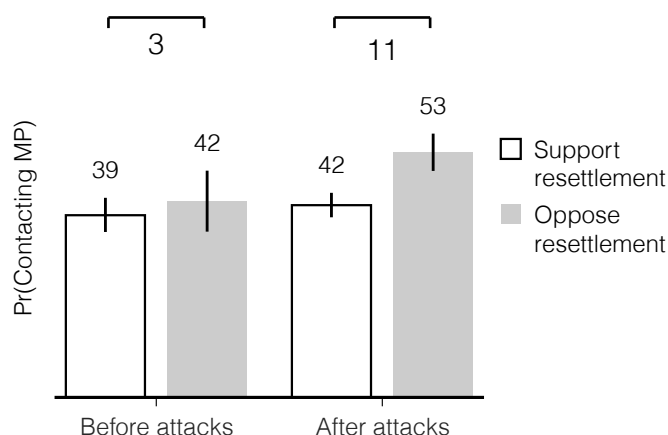
Vertical lines represent 90% prediction intervals.

In the attacks' immediate aftermath, however, we find strong evidence that *opponents* were substantially more mobilized ($p < 0.001$). To examine the difference in differences, we fit a model with an interaction term between support for resettlement and the treatment indicator. We find strong evidence ($p < 0.05$) that the difference in mobilization between supporters and opponents in the post-attack period is statistically different from that before the attacks.

To examine the magnitude of this difference, we calculate predicted probabilities, first using the model fit to the pre-attack data; second, the model fit to the post-attack data. The results, presented in Figure 4, show that expressed willingness to contact an MP about resettlement prior to the attacks is roughly equivalent between resettlement's opponents and supporters (a 3 point difference). Afterward, however, the difference is substantial: among those opposed to Syrian refugee resettlement, willingness to contact an MP about the issue is 11 percentage points higher; among supporters, only 2. To provide estimates adjusting for post-treatment bias, we also calculate the average controlled direct effect (Acharya, Blackwell and Sen, 2016). Consistent with the results above, we estimate a near-zero effect (0.04 %-points, 95% CI: -3.3, 3.2) among resettlement's supporters; among opponents, 12.12 percentage points(95% CI: 8.8, 15.4)—a 12 point difference compared to resettlement's supporters. In sum, both the descriptive and bias-adjusted results provide strong evidence that the attacks caused major differences in mobilization that strongly favored the opponents of Syrian refugee resettlement.

Conclusion

In this study, we used a large-scale natural experiment to provide causal evidence of the effects of major terrorist attacks on a comprehensive set of outcomes concerning attitudes, emotions, and mobilization regarding refugees. Our results show that the public's policy preferences regarding refugee resettlement are resilient, even in the face of substantial, widely covered attacks. Although the Islamic State attacks increased opposition to resettlement, the effect was a modest 4.2 percentage points. Yet, if the effect on policy preferences was modest, what explains—in a wide range of countries—substantial increases in vocal opposition to resettlement in public discourse? Our findings suggest that while terrorism may shift policy preferences only modestly, they can result in large asymmetries in mobilization. Although, prior to the attacks, supporters and opponents of resettlement expressed similar willingness to contact an MP about the issue, the attacks caused substantial asymmetry in mobilization: among resettlement's opponents, willingness to contact an MP increased by 11 percentage points; among supporters, only 2. This result highlights an important complication for the democratic process. If politicians are responsive to shifts in public opinion on refugees, the signal they receive from the public will, in part, result from the mobilizing effects of terrorism. If mobilization differs between a policy's supporters and opponents, however, then as a measure of opinion, this signal will be misleading: growth in expressed opposition to refugees may increase even if attitudes shift little, or not at all.

Finally, one of the most striking results is the speed at which the effects of the Paris attacks rebounded—a clear and consistent pattern across all outcomes. It was not only the public's policy preferences about resettlement that rebounded. Despite the substantial immediate effects on threat perceptions and anxiety regarding Syrian refugees, all effects were decidedly short-lived. Because this is the first study to track these effects from a major terrorist attack with precision, whether such dynamics are equivalent during similar violent events is, to our knowledge, unknown. The clear and rapid decay of these effects, however, lends support to recent observational research showing that immigration attitudes remain relatively stable over time, and resilient to exogenous shocks (Kustov, Laaker and Reller, Forthcoming). It is surprising,

nevertheless, that the effects of a massive real-world terrorist attack are clearly ephemeral. Because the attacks were the deadliest in a Western democracy in more than a decade, their effects should be those most likely to be substantial and persist. Our results suggest otherwise: that even a violent event as large as the Paris attacks may not have the long-lasting effects that are often assumed by politicians and commentators.

Biographical Information

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