Start with the literature: assessthe empirical evidence for the relationship between ter-rorism and political attitudes*

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Abstract

Over time, many scholars have attempted to investigate the impact of terrorism on citizens' political beliefs. This paper replicates data analysis of this body of literature, examining around 325 studies conducted between 1985 and 2020, which results affirm that terrorism is correlated—albeit to a small but meaningful extent—with increased hostility towards outgroups, tendencies towards political conservatism, and the occurrence of rally-'round-the-flag effects. Overall, this meta-analysis consolidates existing evidence, discerns consistent findings across different situations, and identifies significant areas of knowledge deficiency. However, since the effects of terrorism vary widely, with studies focusing on Islamist violence, carried out in the United States or Israel, we raise concerns regarding the possibly generalizable nature of the findings. It is essential to place great emphasis on the weight of this discussion and call for future investigations of the reaction of political attitudes on terrorism.

1 Introduction

Terrorists, distinct from ordinary criminals, are perceived to advocate for a political cause, often resorting to violent tactics to garner public attention and influence public opinion. Hence, within political science, there's a prevalent belief that the effectiveness of terrorism hinges on assumptions regarding its impact on public sentiment. Essentially, public opinion is deemed crucial in understanding the dynamics of terrorism. Yet, the extent and manner in which terrorism affects "ordinary citizens" remain ambiguous. Are citizens more inclined towards supporting authoritarian leaders in times of terror? Are they willing to sacrifice civil liberties and democratic values for enhanced security post-attack? Additionally, what or who exactly constitutes "terrorism"?

Since the tragic events of September 11, 2001 (9/11), a substantial body of literature has emerged addressing these inquiries, yielding varied conclusions. While some scholars express concern that public reactions to terrorism jeopardize democracy, others argue that such responses are limited or transient, and sometimes even absent. However, these studies often explore diverse outcomes, nations, and terrorist threats using a range of methodologies. Consequently, there's a lack of systematic scrutiny regarding how the public's response to terrorism has been studied, resulting in limited understanding of this field's key characteristics and how they influence conclusions.

A (2023) paper by Amélie Godefroidt from Norwegian University of Science and Technology published in the American Journal of Political Science delves into the moderator analyses, in order to understand how contextual factors influence the relationship between terrorism and political attitudes. The study discusses an extended model for analyzing the relationship between terrorism and political attitudes, incorporating characteristics of manuscripts and effect sizes as moderators.
The study examines data from various sources, and details the characteristics of studies in the field, including the types of terrorism studied, geographical focus, and methodological approaches. It notes gaps in longitudinal studies, the dominance of convenience samples, and the focus on majority group perspectives. The

*Code and data are available at: https://github.com/BerniceBao/Terrorism-Political-Attitude ; Replication on Social Science Reproduction platform available at: https://doi.org/10.48152/ssrp-2vrs-r095

study finds that terrorism is associated with increased outgroup hostility, political conservatism, and rally-'round-the-flag responses, though the effects are relatively small. Although the discussion section reflects on the findings, the limitations of the existing literature still exist, such as the predominant focus on Islamist terrorism and the limited geographical scope. It calls for a more nuanced understanding of public responses to terrorism, considering the potential long-term consequences.

Our paper will follow a reproduction of Amélie Godefroidt's implications on the relationship between terrorism and political attitudes. Our paper seeks to replicate their two following research claims, (1) terrorism, whether through self-reported exposure, manipulated news exposure, anxious or angry appraisals of terrorism, or terrorist risk perceptions, is related to higher levels of outgroup hostility, political conservatism, and, to a lesser extent, rally-'round-the-flag responses, and (2) public responses to terrorism, such as outgroup hostility, political conservatism, and rally-'round-the-flag effects, are particularly noticeable in the United States and when attacks are carried out by outgroup members. Our reproduction was conducted using the statistical programming language R (R Core Team 2020). To further enable our analysis we employed the use of the following packages: readr (Wickham, Hester, and Bryan 2023), here (Müller 2020), readstata13 (Garbuszus and Jeworutzki 2021), MASS (Venables and Ripley 2002), sandwich (Zeileis 2006), lmtest (Zeileis and Hothorn 2002), dplyr (Wickham et al. 2022), tidyverse (Wickham et al. 2019), jtools (Long 2022), huxtable (Hugh-Jones 2022), list (Blair and Imai 2010), knitr (Xie 2014) and kableExtra (Zhu 2021).

In this paper, we commences with an overview of the data source, examining the methodologies utilized in the original study, and conducting a review of the variables employed for our replication efforts. Following this, we will proceed with reproducing specific results to validate their conclusions and enhance their comprehensibility. Finally, our paper will culminate with an analysis of our findings, an exploration of ethical considerations and biases, a discussion of the limitations encountered during the replication process, and an advocacy for further research in the field.

2 Data

2.1 Source

In this paper we aim to replicate part of the results from the "How Terrorism Does (and Does Not) Affect Citizens' Political Attitudes: A Meta-Analysis." In the original paper, the author Godefroidt explored the correlation between terrorism and outgroup hostility and conservatism. Furthermore, the author also included more complicated models and even an shinny app for interactive viewing. Due to various restraints, we are going the test the major finding of the original paper.

In summary, the major claims(also what we are gong to replicate) of the original paper are: 1.To what extend do terrorism arose public sentiment towards outgroup hostility, and a conservative shift. 2.To what extend do the last claim hold, if being placed across different contexts.How such differences in observed effect sizes explained by additional moderators?

2.2 Methodology

The original paper obtained its data from database that contains 12333 records. The data was collected throug three steps, electronic search, screening related paper, and public survey. After the filtering, 10,391 records were included for further reviewing. In the [figure 1], the author used a flow chart to illustrate the collecting and cleaning process. The collected data from six sources ranging from 'web of science,' to 'personal contact.' After preliminary filtering, additional 9444 records were removed due to the nature of these information are news articles and policy briefing. The inclusion of these information may ditch the reliability of the analysis. Eventually 241 pieces were retained. They were then used for data processing, a total of 1733 total associations were generated.

2.3 Features

Those associations or processed data are stored in the file metaanalysis-data.xlsx. It contains 76 column and 1733 observations. A randomized selection of manuscripts (±15% of the total sample) was used to pilot the

code book and make any necessary revisions. Godefroidt, 2022) The columns can be divided into fifth major data categories. The first part of the variables are identity information of the data such as the author name, year of the study, the sample size and the general population. The second part is the political tendency and people's ethnicity with variables ranging from the percentage of people identifying as a liberal and mean to the white-muslims percentage. The third portion records the detail of each terrorist attack, including the type, date, casualties. The forth part records a series of political attitudes. For example, nationalism and institutional trust, socio-economic conservatism, support for policies that pertains an outgroup. The last part lists the technical data that will be used in meta-analysis code such as Fisher's Z correlation, regression and so on. From the original survey data, each variable correlates with a survey question asked to participants. In our reproduction, we excluded data that being used for figure3 and figure4 the moderator test. We also made some minor changes and removed insignificant data for clearer replication and viewing.

In order to better present our replication of the results, The following are measurements of public political opinions provided by the author. They are classfied into 4 categories given in the original paper. We selected some important measures

Objective exposure

- Pre postattack measures
- Days between an act of violence and survey day
- Newspaper vignette about an act of violence
- News clip about an act of violence

Self-reported exposre

- Direct exposure to terrorism
- Indirect exposure via friends and family
- Indirect exposure via media reports

Cognitions

- Self-reported concern/worry for an attack on the nation
- Self-reported concern/worry to become a victim of terrorism
- Self-reported concern/worry for an attack on the nation
- Manipulated vignette or writing task about the threat of terrorism (rather than about a specific act of violence)
- Manipulated percentage of the threat of terrorism

Emotion

- Anger/outrage
- Fear/anxiety
- Sadness
- General negative emotion

3 Statistical Analysis

In this paper we will replicate figure 2 and table 2 of the original paper. Fortunately, the author has already compressed all the analysis into one coding file. We selected the corresponding part for each illustration. In terms of the analysis method, Pearson's correlation coefficient is used. According to the original paper, the manuscripts of the data they collected used various statistical method. For comparison purposes, each association is converted into a Pearson's correlation coefficient with the sampling variance. The author stressed that to "meaningfully compare and pool effect sizes, all correlations must also reflect the relation between terrorism and sociopolitical attitudes in the same direction."(Godefroidt 2023)

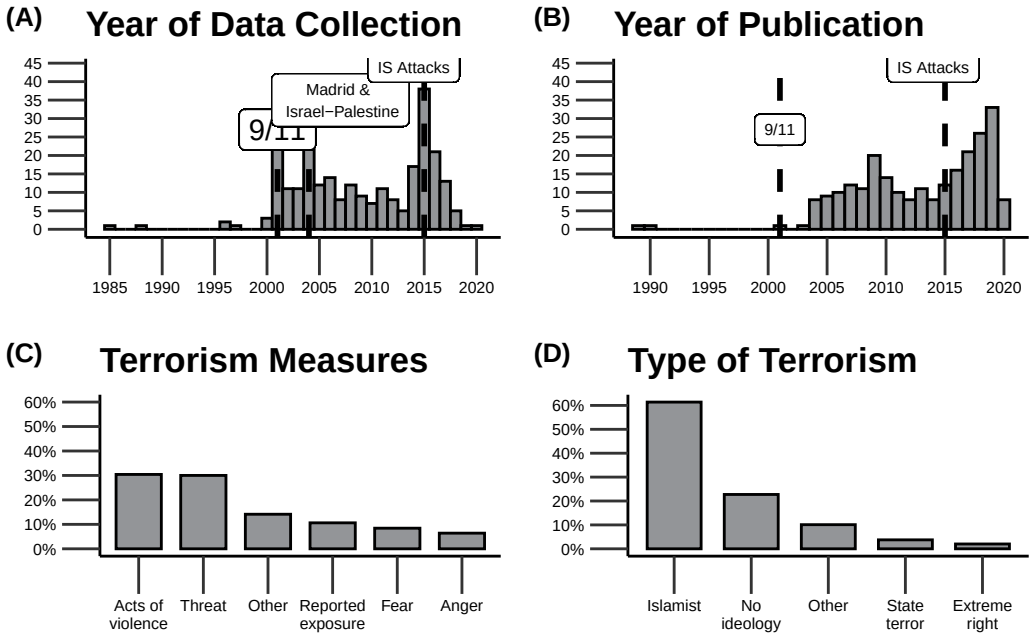

Figure 1: Panel A displays the number of unique studies conducted over time, Panel B the number of manuscripts published over time, Panel C the frequency of used terrorism measures (in percentage), and Panel D the frequency of studied types of terrorism (in percentage)

4 Results

As depicted in Figure 1(A) and (B), scholarly interest in exploring the link between terrorism and public attitudes notably began following the 9/11 attacks, and received further impetus following the 2015–16 Islamic State (IS) attacks. After terrorist attacks, the number of studies reaches its peak level and the number of manuscripts published has increased sharply in the following years.Put differently, the figures imply that this research domain is significantly influenced by specific events.

Moreover, from 1985 to 2020, researchers have employed diverse methodologies to measure exposure to terrorism (refer to Figure 1(C)). Some studies exposed participants to news articles or video clips depicting specific acts of violence (e.g., 9/11), while in other cases, exposure occurred naturally when surveys coincided with terror attacks (527 data points of acts of violence , as 30%). Additionally, studies have assessed or manipulated individuals' perceptions of terrorism threats (threat of violence: 520 data points as 30%), examined affective responses such as fear (146 data points) and anger (111 data points), and investigated self-reported exposure to terrorism through personal experiences, relatives' experiences, or media coverage (self-reported exposure: 184 data points).

The most frequently studied acts of violence are—perhaps unsurprisingly—9/11, the Israeli-Palestinian conflict, and the 2015 series of IS attacks in Paris. Consequently, regarding the ideology behind the violence (Figure 1(D)), the vast majority of effect sizes quantify the effects of or relationship with Islamist terrorism (1,064 data points, 61%), following by no ideology terrorism, whereas the share of information on how the public reacts to extreme-right terror is remarkably low (35 data points, 2%).

All Fisher's Z transformed correlation coefficients were used as inputs to a random-effects, three-level meta-analysis. A three-level meta-analysis assumes that observed effect sizes differ because of (1) sampling variance, (2) variance between manuscripts, and (3) variance between the correlations from within the same manuscript(Godefroidt 2023). Therefore, the author estimated the following model:

$$y_{ij} = \beta_0 + u_{(2)j} + u_{(3)j} + e_{ij}$$

where any observed effect size in manuscript j (y_{ij}) is assumed to be equal to an overall population effect size

(β_0), plus a random deviation of the mean population effect size in manuscript j from this overall population effect size ($u_{(3)j}$), plus a random deviation of the i-th population effect size in manuscript j from the mean effect in this particular manuscript ($u_{(2)ij}$), plus a random error deviation of the observed effect size from the population effect due to sampling fluctuation (e_{ij})(Godefroidt 2023). In plain language, a three-level approach allows me to consolidate an overall effect size using all 1,733 effect sizes (while properly accounting for clustering in the data), to study heterogeneity in effect sizes both between and within manuscripts, and to explore moderator variables that explain part of this variation between and within manuscripts(Godefroidt 2023).

The extent of terrorism's association with outgroup hostility, political conservatism, or rally-'round-the-flag responses can be observed in the estimated overall correlations (Z_r) displayed in Table 1. Table 1 displays the estimated overall correlations (Z_r). The correlations in this table are Fisher's Z-transformed, while those reported in the text below are back-transformed to their normal correlation scale (denoted as $\hat{\rho}$) for ease of interpretation(Godefroidt 2023).

Table 1: Note. k = number of effect sizes. j = number of manuscripts. Zr = Overall Fisher's Z correlation coefficients. LBCI = Likelihood-Based Confidence Interval. The Zr estimates are considered significant when the LBCIs do not include zero.

OutcomeType	k	j	Zr	LBCI
Outgroup hostility	645	126	0.126	[0.094;0.159]
Conservative shift	728	144	0.132	[0.108;0.156]
Rally effects	360	72	0.090	[0.055;0.127]

Table 1 shows that terrorism is significantly associated with outgroup hostility ($\hat{\rho} = 0.126$), political conservatism($\hat{\rho} = 0.131$), and, to a lesser extent, rally-'round-the-flag effects ($\hat{\rho} = 0.090$). Godefroidt (2023) indicates that it is important to note that all associations are relatively small, both following conventional standards and compared to other meta-analyses in the social sciences.

5 Discussion

5.1 Findings

In this reproduction we successfully replicated and proved the research result of the core findings of the original paper; the interplay between terrorism and general conservatism. Humans possess a natural tendency to favor members of their own group while displaying suspicion or hostility towards outsiders (Tajfel & Turner, 2019(Tajfel and Turner 2019)). This ingroup-outgroup bias serves as fertile ground for the cultivation of stereotypes, prejudice, and intergroup conflict. In the context of terrorism, extremist ideologies often exploit these psychological tendencies to demonize the targeted groups, portraying them as existential threats to the ingroup's identity and well-being. Even though political position is a person's own opinion, but this paper used statical method and quantified the perception. After the public has witnessed a terrorism, they will shift to be more unwelcome of the region that terrorism stands for, which in this paper is mainly about Islamism. This will exacerbating pre-existing prejudices and fueling intergroup tensions. Following terrorist incidents, there is often a surge in xenophobic rhetoric, hate crimes, and discriminatory policies targeting marginalized communities (Huddy et al., 2005(Huddy et al. 2005)). This cycle of violence and retaliation perpetuates a vicious cycle of outgroup hostility, further alienating communities and creating fertile recruiting grounds for extremist ideologies.

Ideological Underpinnings Ideology plays a crucial role in shaping terrorist groups and their actions. From nationalist movements to religious extremism, various ideologies have been exploited to justify acts of terrorism. For example, groups like Al-Qaeda and ISIS espouse a distorted interpretation of Islam to justify their violent campaigns, while others, such as the Irish Republican Army (IRA), are driven by nationalist aspirations (Juergensmeyer, 2003(Juergensmeyer 2003)). Understanding the ideological motivations behind terrorism is essential for devising effective counterterrorism strategies that address root causes rather than merely addressing symptoms. In short, addressing outgroup hostility requires a holistic approach that addresses the root causes of prejudice while promoting social cohesion and resilience against extremist narratives. By fostering empathy, understanding, and solidarity among diverse communities, we can build a more inclusive and resilient society resilient to the influence of terrorism and extremism.

5.2 Ethical Implications

In their paper, studying terrorism and political attitudes (Godefroidt 2023) raises significant ethical considerations due to the potential impact on individuals and communities. For instance, examining public responses to terrorism may inadvertently contribute to the stigmatization of certain groups, particularly when findings are not adequately contextualized or interpreted. Moreover, researchers must ensure the well-being and rights of participants by obtaining informed consent and protecting their confidentiality. For example, studies employing self-report measures to assess exposure to terrorism should carefully consider the potential psychological distress participants may experiensce when recalling traumatic events (Godefroidt 2023). Additionally, researchers must navigate the sensitive nature of studying terrorism across diverse cultural contexts, being mindful of cultural differences in understanding and interpreting acts of violence.

5.3 Accounting for Bias

Bias can manifest in various stages of the research process, impacting the validity and reliability of findings. To mitigate bias, researchers should employ rigorous methodologies and transparent reporting practices. For example, when selecting participants, researchers should strive for representative samples to minimize selection bias. Moreover, controlling for confounding variables, such as political ideology or prior exposure to terrorism, helps ensure that observed associations are not spurious. Additionally, researchers should be transparent about potential sources of bias in their data analysis methods, such as the exclusion of certain demographic groups or the use of subjective coding criteria. By acknowledging and addressing potential biases, researchers can enhance the credibility and robustness of their findings.

5.4 Limitations

Despite its contributions, the article acknowledges several limitations that warrant consideration. For instance, the predominance of studies focused on Islamist terrorism in Western contexts limits the generalizability of findings to other types of terrorism and cultural contexts. This bias may stem from the availability of data or the framing of terrorism within public discourse. Moreover, the reliance on cross-sectional designs and self-report measures introduces potential biases, such as recall bias or social desirability bias. Additionally, the limited representation of studies from regions most affected by terrorism, such as Afghanistan or Syria, hinders the comprehensive understanding of public responses to terrorism. These limitations underscore the need for future research to address these gaps and provide a more nuanced understanding of the phenomena under study.

5.5 Future Research

Moving forward, future research should prioritize addressing the identified limitations and advancing knowledge in the field. For example, comparative studies across different types of terrorism and ideological motivations can elucidate the differential impact on political attitudes and behaviors. Longitudinal studies are also essential for capturing the dynamic nature of public responses to terrorism over time. Moreover, qualitative research methods, such as interviews or focus groups, can provide insights into the underlying mechanisms and individual experiences of terrorism. Additionally, exploring the role of contextual factors, such as media framing or political discourse, can enrich our understanding of the complex interplay between terrorism and political attitudes. By pursuing these avenues of research, scholars can contribute to a more comprehensive understanding of the phenomena while upholding ethical standards and methodological rigor.

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