

Political Legitimacy and Worldwide Terrorist Attacks, 1970-2017

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Abstract

The classic work by Max Weber argued for the impact of political legitimacy on reducing conflict and violence within states. Based on Weber and more recent theorists we argue that governments whose legitimacy is undermined are more vulnerable to terrorist attacks. Using data on worldwide terrorist attacks from the Global Terrorism Database (GTD) and measures of good governance from the Varieties of Democracy Project (V-Dem), we find considerable (but not total) support for the impact of legitimacy on terrorist attacks.

We perform fixed-effects negative binomial regressions of domestic terrorist attacks covering 131 countries from 1970-2017 to test the impact of four political legitimacy measures: accountability, efficiency, procedural and distributive fairness.

Controlling for common economic, political and demographic measures, we find that from all legitimacy measures, accountability has the most robust influence: rates of domestic terrorist attacks are highest when governments are transitioning from highly unaccountable to highly accountable systems.

Moreover, our results suggest that political legitimacy is a multi-dimensional concept and its components have varying effects on domestic terrorist attacks. We discuss the implications for theory, policy and future research.

Keywords: Political legitimacy, terrorism, poverty, conflicts, longitudinal analysis

INTRODUCTION

In the 1970s and 1980s the “Rote Armee Fraktion” (Red Army Fraction) in Germany and the “Brigate Rosse” (Red Brigade) in Italy carried out several terrorist attacks against state officials in an attempt to harm and overturn a government they perceived as being illegitimate (Orsini 2009; Pflieger 2011). But other terror organizations, too, such as Boko Haram in Nigeria, justify their resort to extreme forms of violence with claims that the government lacks in credibility and is untrustworthy (Adegbulu 2013). Scholars have long noted that individuals with a preference for radical or extremist positions tend to question the appropriateness and legitimacy of the existing political order (see e.g., Crenshaw 1983; Schmid 2013). Consequently, governments are supposedly particularly vulnerable to extremism and terrorism in times when their legitimacy is discredited, and the fairness of their policies is questionable. As Chenoweth (2013: 375) states “a country’s best defense against terrorism is to enhance its legitimacy”, which should entail measures to improve both its democratic and purposive practices. Although this observation has potentially important implications for both understanding patterns of terrorism as well as designing effective counter-terrorist measures, we know little as to how the legitimacy of political systems relates to terrorist violence.

In most countries, terrorism is a rare event and few countries experience prolonged periods of terrorism-related casualties. The fact that terrorist attacks are clustered within regions and time periods, and change in form, frequency and severity suggests that terrorist attacks are patterned (see e.g., Kluch and Vaux 2016). The need to understand these patterns within and across countries has grown importantly, especially since the events of 9/11. Among the most widely explored potential causes of terrorism at the systemic level are poverty, repressive policies, autocratic regimes and non-democratic systems, and state failure (see, among others, Burgoon 2006; Newman 2007; Chenoweth 2010a; Dugan and Chenoweth 2012). The empirical evidence with regard to the impact of these predictors on terrorist activities is very varied, most likely as a consequence of the different research designs and model specifications applied by the various studies (see Gaibullov et al. 2017 for a similar argument).

Political legitimacy is a powerful tool deployed by both, counterterrorist policy-makers and their opponents when positioning themselves in the public sphere (Crenshaw 1983). To our knowledge, with one exception (Masters and Hoen 2012) so far exhaustive approaches drawn from political legitimacy theory which address different components of government legitimacy have been neglected in the study of terrorism. Previous research (see, e.g., Li 2005; Abadie 2006; Gaibullov et al. 2017; Morgan and Rubin 2020) has mostly taken a narrow view on political legitimacy, e.g., by focusing on the consequences of a lack in political freedom and democratic participation or using a standard 21-point scale measure of levels of political democracy. We anticipate this to be a major shortcoming.

Studies that have linked positively perceived political legitimacy to desistance from crime, such as lower reoffending rates (Paternoster et al. 1997), as well as greater cooperation with state authorities (Sunshine and Tyler 2003; Tyler et al. 2010) find support for the political legitimacy theory. Through the mechanism of voluntary submission to state authority people are generally concerned to voice their opinions and discontent in a law-abiding fashion. It, however, seems coherent to imagine that in societies where the legitimacy of the government is at stake, individuals are more likely to break with the law and are particularly at risk to seek public recognition through a particular form of crime, namely an act of terrorism. Indeed, high rates of terrorist attacks are often found in transitioning or “partial” (Goldstone 2010) democracies characterized by poor human rights practices and limited political access, both conditions linked to illegitimate political systems, as well as intermediate levels of economic advancement (Kurrild-Klitgaard et al. 2006; Chenoweth 2010b; Piazza 2012).

Based on the assumption that a lack in government legitimacy provides explanations for terrorist outcomes, this study aims to assess whether, within countries and across time periods, political legitimacy is related to domestic terrorism rates. Based on Weber’s (1956) considerations and on findings from research that point to a non-monotonic relationship between governance measures and terrorism, we will hypothesize that states are particularly exposed to domestic terrorism when they experience intermediate levels of legitimacy. Drawing on the work of Weatherford (1992), this study assumes that at the macro-level legitimacy is reflected in the performance of the government system, namely in its accountability, efficiency as well as procedural and distributive fairness. We could find no prior research that has empirically tested the extent to which these measures affect the likelihood of terrorist attacks across time and countries.

Our study relies primarily on the Global Terrorism Database (GTD) and on measures of legitimacy retrieved from the Varieties of Democracy database (V-Dem). In the empirical part, we conduct a longitudinal analysis of domestic terrorist attacks in 131 countries that covers the time period 1970 - 2017. We estimate a series of fixed-effects negative binomial regressions of counts of domestic terrorist attacks to control for time-invariant predictors that could potentially affect our estimates. We account for potential time-variant confounding factors in the relationship between political legitimacy and domestic terrorism, such as poverty rates, population size and exposure to conflicts. In addition, we conduct multiple robustness checks. The findings suggest that especially government accountability strongly correlates with domestic terrorism. As is the case for other legitimacy measures this relationship is, however, non-monotonic: both low and high levels of accountability predict lower rates of domestic terrorist attacks.

Our paper proceeds in six sections. First, we provide an overview of the current academic debate on macro-level predictors of terrorist attacks and discuss the importance of accounting for a wide range of measures of political legitimacy in the study of terrorism. Second, we introduce the concept of legitimacy and argue for the use of separate measures to assess a government’s accountability, efficiency as well as procedural and distributive fairness. Third, we discuss the data and measures. Fourth, we present the analytical strategy. Fifth we discuss

the results from a series of fixed-effects negative binomial regressions of counts of domestic terrorist attacks. Based on the hypothesis that a lack of legitimacy can serve as a justification for terrorism, we assess whether countries with high levels of political legitimacy have few domestic terrorist attacks. We account for potential confounding factors in the relationship between political legitimacy and terrorism, such as poverty rates, population size and exposure to conflicts. Finally, sixth, we discuss the findings and provide concluding remarks as to whether political legitimacy has the potential to inhibit domestic terrorism.

FINDINGS ON CORRELATES OF TERRORISM

Other than research on violent offending (focusing on ordinary crimes) that has widely explored correlates at the micro and macro level of analysis (e.g., Sampson et al. 1997), empirical research on terrorism (addressing ideologically motivated crimes) has long focused on the “vulnerable individual”, neglecting the societal and political circumstances that might influence terrorist outcomes (Horgan 2008). The heterogeneity and the low base rates of terrorist attacks as well as the numerous potential confounders add to the challenges in studying macro-level correlates of terrorist attacks. Yet, several scholars (e.g., LaFree and Dugan 2009; Murshed and Pavan 2011) have strongly advocated for taking these circumstances and associated grievances into account: without considering them, important predictors of terrorist attacks might be overlooked.

So far, empirical research focusing on the impact of macro-level variables has frequently investigated the relations between terrorist attacks and measures of poverty, welfare, and state capacity (see e.g., Li and Schaub 2004; Freytag et al. 2011; Freilich et al. 2015; Bove and Böhmelt 2016).¹ Using a cross-sectional research design, Burgoon (2006) finds that countries with more generous welfare provisions suffer from fewer international and domestic terrorist attacks. Relying on a similar research design, the result from Abadie (2006), however, suggests that the level of poverty of a country is not related to its exposure to terrorist risk, once country-specific characteristics are controlled for. Piazza (2011) takes another angle to the question of the relationship between poverty and number of terrorist attacks by investigating the impact of marginalization and ethnic discrimination. According to the author’s result from a time-series analysis, countries are less likely to experience terrorist attacks when they lack minority groups or when their minority groups are not discriminated against. The question of the influence of weak and failed states has attracted substantial scholarly attention, too. Many scholars, such as Piazza (2008), point to the fact that since the 1990s terrorist attacks were concentrated in failed or weak states. Newman (2007), however, notes that the weak state condition is not sufficient for explaining the presence of terrorist groups in the first place. The fact that for most of the above-mentioned correlates research has produced an inconclusive picture suggests that important dimensions might have been neglected in the study of terrorism.

¹ We focus only on the correlates that are relevant for the analyses presented in this paper. See LaFree and Dugan 2009 for a detailed overview of research on terrorism.

In 1983, Crenshaw notes that “[t]he power of terrorism is through political legitimacy” (p. 25). The author discusses how terrorism, legitimacy and power interrelate, stressing the importance of political legitimacy as an analytical framework in the study of terrorism and terrorist outcomes. Indeed, studies have found support for the impact of legitimacy on a wide-range of deviance-related measures, e.g., crime rates (LaFree and Ackermann 2009).

Yet, to date, few authors that have studied the impact of political legitimacy on terrorist attacks. Studies that have turned attention to this question have mainly tried to determine how levels of democracy and regime types enhance or hinder terrorist activities (Wade and Reiter 2007; Savun and Philips 2009; Wilson and Piazza 2013). This research finds no strong consensus on the relationship between level of democracy and terrorism, with studies finding both positive (e.g., Chenoweth 2010a) and negative effects (e.g., Li 2005). Differing research design choices across the cited studies add to the difficulties in assessing whether regime types and restrictions of civil and political freedom relate to terrorism, and if so in which direction the effect points. For instance, whereas some of the studies use cross-sectional data and a measure of terrorist risk as dependent variable (e.g., Abadie 2006), other studies rely on a longitudinal study design and regress on counts of terrorist attacks (e.g., Gaibullov et al. 2017).

A substantial number of prior studies that investigated impacts of government legitimacy on terrorist activities has focused on the presence of electoral processes and civil /political freedoms as well as the levels of political participation and competition (e.g., Chenoweth 2010a; Abadie 2006). These measures are mostly used as a proxy for the degree of democratization of a country and do not allow for a detailed differentiation in the dimensions of governance of interest to this paper. Other studies have taken the level of democratization of a country and its institutions as an indicator of government legitimacy, relying on general estimates which combine political freedom, competitiveness of political participation and fairness of political institutions (e.g., Marshall et al. 2018 and Gaibullov et al. 2017, although the latter also use a disaggregated measure for some of their analyses). Most of the studies measuring the impact of political development of a country on terrorist activities rely on the Polity2 score from the Polity IV project database, an aggregated measure that reflects the “patterns of authority” and regime changes (Kaufmann et al. 2005). By using a single measure of political legitimacy, this research precludes the possibility to address different components of a legitimate political system.

We argue that more specialized measures are needed to accurately reflect the complexity of the concept of political legitimacy².

² In some regression specifications, we accounted for polity2 as an alternative measure of political legitimacy to assess the robustness of the findings across different measures.

Summing up, except for population size that is commonly found to be positively related to terrorist activities (see Krieger and Meierrieks 2011), for most of the correlates research finds inconsistent evidence for the assumption that they strongly link to terrorism, suggesting that important drivers of terrorism have remained unexplored. Legitimacy considerations have only been partly addressed by research focusing on the relationship between democracy and terrorism. Moreover, most of this research relies on popular measures that vary little over time and do not allow for a detailed distinction between different components of democracy.

THE LEGITIMACY EXPLANATION: THEORY AND HYPOTHESIS

Max Weber's (1956) landmark work on the "legitimate power" ("legitime Herrschaft") has laid the foundations for the study of the legitimacy of political systems. There, Weber points to legitimacy as being key element for the functioning of modern states, then citizens are more likely to voluntarily submit to state's authority if they feel that the state power is legitimate.

Weber identifies three main sources of legitimacy: tradition, charisma and legality. People feel positively about a particular political or social order either because it has been there for a long period of time (tradition), or because they trust the ruler (charisma), or again because they trust the rationality of the rule of law (legality) (Weber 1968). For this paper, the latter is of particular importance: in the modern state, the perceived legality and fairness of enacted rules ("Legalitätsglaube") is a prime precondition for a legitimate authority. We build upon this work and define legitimacy as being a judgment about the rightfulness of a rule or a ruler. It is the shared "belief that a rule, institution, or leader has the right to govern" (Hurd 2007). Observable characteristics of government performance inform these beliefs and judgments (Weatherford 1992).

How does this theoretical approach to legitimacy relate to terrorism and why do we expect increased political legitimacy to reduce domestic terrorist attacks?

First, researchers (Crenshaw 2002; Atran 2003) have point to the problematic consequences of governments' responses to terrorism, especially when they are of repressive nature. Terrorists label those responses as illegitimate to attract and mobilize sympathies of potential supporters. Dugan and Chenoweth (2012) find indeed that repressive counter terrorism measures are followed by periods of increased political violence. We take this explanation one step further and assume that if illegitimate government measures promote politically motivated violence, because terrorists see the latter as a means to publicly voice their discontent and perceived grievances, then increasing political legitimacy may reduce terrorist threats. Under a legitimate regime with legitimate measures, people obey laws and regulations and should see little need to actively seek public recognition through terrorism.

Second, we argue that political legitimacy is a complex concept with various dimensions, each of those specifying different parts of governmental functioning. Some of these dimensions might more strongly relate to

political violence and terrorism than others. Indeed, research that examined the impact of components of political legitimacy on political instability, an outcome often linked to terrorism (Freytag et al. 2011), finds that the predictive power of political legitimacy components on instability varies (see e.g., Goldstone 2010).

Finally, findings from criminology have provided empirical evidence that good political governance as well as well-designed economic policies, both elements of political legitimacy, can lower homicide rates (see e.g., Neumayer 2003). Since other studies have highlighted the fact that both social and political forms of violence share similar predictors (see e.g., Fox and Hoelscher 2012), we consider whether indicators of political legitimacy are also relevant for the study of political violence.

Weatherford (1992) offers one of the most comprehensive operationalizations of the concept of legitimacy at the macro-level. The author sticks to a traditional understanding of legitimacy which focuses on features of institutional procedures, the “systemic properties” (p. 150). According to Weatherford, at the macro-level legitimacy is reflected in the “judgments of system performance” (p. 155) of the government: a system that performs well is legitimate in the eyes of the average citizen. The overall system performance is achieved through different components of legitimacy which can be empirically assessed. The author identifies four main components of political legitimacy: accountability, efficiency, procedural fairness and distributive fairness (see Table 1). Whereas accountability and procedural fairness pertain to the realm of the democratic qualities, efficiency and distributive fairness are part of a government’s purposive qualities.

This approach is advantageous because it identifies characteristics of the system that can be easily operationalized and compared. However, it also has an important weakness: it focuses on formal structures and aggregate processes and only allows us to draw conclusions at the aggregate level.

Table 1 about here

We assume that the relationship between the four legitimacy components and domestic terrorist attacks is non-monotonic. Multiple studies attest an inverted U-shaped relationship between popular measures of democracy and political freedom³ and terrorist activities (see e.g., Abadie 2006; Chenoweth 2013; Gaibullov et al. 2017). The inverted U-shaped relationship suggests that terrorist activity is particularly high in countries that experience a transition towards a democratic system: weakly institutionalized democracies seem to be particularly violent. These measures of democratization are related, but not identical, to our measures of legitimacy. Similarly to this research, we thus assume that an inverted U-shaped relationship between legitimacy components and terrorist activity exists. We expect terrorist rates to be highest when countries transition from illegitimate to legitimate systems. Using an analogous argument to Gaibullov et al. (2017), we assume that in countries and times where political legitimacy is very low strategic opportunities to engage in terrorist activities are simply not available.

³ e.g., Polity2; Freedom House Index.

As a result, fewer domestic terrorist attacks are carried out when countries lack almost entirely in democratic and purposive qualities. In transitioning phases, however, limited political access and freedoms allow for some expression of grievances, opening possibilities to engage in terrorist activities. In this phase, high grievances caused by the lack of political access among others paired with the inability of governments to grant civil and political rights and protect lives and property provide for the “ideal environment for terrorism” (Gaibullov et al. 2017: 497). Once countries reach high levels of political legitimacy, they are much less exposed to the threat of terrorism. On the one hand, through facilitated political access, equal rights and distribution of resources grievances diminish. On the other hand, highly legitimate governments pursue the protection of right and property with great emphasis. Together, these two aspects limit strategic opportunities to carry out terrorist attacks, and the necessity to engage in terrorist activity.

Relying on Weatherford’s (1992) operationalization of legitimacy we thus test the following hypotheses:

- (H1) countries with a highly *accountable* (or highly unaccountable) political system are less exposed to domestic terrorist attacks;
- (H2) countries with a highly *efficient* (or highly inefficient) political system are less exposed to domestic terrorist attacks;
- (H3) countries with a highly *procedurally fair* (or highly procedurally unfair) political system are less exposed to domestic terrorist attacks;
- (H4) countries with a highly *distributively fair* (or highly distributively unfair) political system are less exposed to domestic terrorist attacks.

DATA AND MEASURES

Data on domestic terrorist activities were drawn from the Global Terrorism Database (GTD), Version 2018, which is the most comprehensive open source data on terrorist attacks currently available (LaFree et al. 2014). Our political legitimacy measure stemmed from the Varieties of Democracy database (V-Dem), Version 9, a fairly new database that provides granular assessments of government institutions and actions and recognizes several levels of aggregation (Coppedge et al. 2019; Pemstein et al. 2019)⁴.

The controls were drawn from the PENN World Table (PWT) Database, Version 9.1 (Feenstra et al. 2015), and the UCDP/PRIO Armed Conflict Dataset, Version 19.1 (Gleditsch et al. 2002; Pettersson et al 2019). We limited the analysis to the controls that have been found to have a major impact on domestic terrorism: poverty, population size, and regime length. In addition, we performed robustness checks including information on civil and transnational conflict.

⁴ These measures were compared to the widely used measure of democracy taken from the Political Regime Characteristics and Transitions Dataset (Polity IV). See the empirical section for the discussion of the result.

Domestic terrorist attacks

We based the measure of *domestic terrorist attacks* on information recorded in the GTD. The database stores systematic information on terrorist attacks performed around the world from 1970 until 2017. We defined terror attacks “as the threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation” (LaFree and Dugan, 2007: 184). Consequently, we were only interested in non-state terrorism and in incidents that were intentional and entailed some level of violence or the threat thereof. All actions that were performed in the context of legitimate warfare activities and permitted by international humanitarian law were excluded from the analysis.

The GTD contains information on both domestic and transnational terror activities. For the main analysis presented in this paper, we considered only the domestic attacks. We have, however, performed robustness checks with information on transnational terrorist attacks, too.

We used a broad definition of non-domesticity or transnationality whereby incidents in one country are defined as being “transnational” when they involve victims or targets of another country: thus, the location of the attack and the nationality of the targets and/ or victims differ. For the purpose of the analyses presented in this paper, we have successively recoded these incidents as zeros (see Burgoon 2006 and Enders et al. 2011 for a similar approach). Conversely, attacks were labeled as being “domestic” in all instances where the attack was directed towards local targets and/or victims. A narrower and arguably more appropriate definition of “domestic terrorism” would require that terrorist perpetrators are “home-grown” and carry out an attack in the country in which they hold citizenship. Although the GTD records nationality of the perpetrator(s), this variable presents a high amount of missing information, including it would significantly skew the distribution of domestic terrorist attacks as this missing information would be recorded as “null-event”, challenging the robustness of the results.

We used count numbers of domestic terrorist attacks in a given country and year as measure of terrorist activities. Between the years 1970 and 2017 we counted 3077 country-years that had experienced at least one domestic terrorist attack. With 3918 attacks in 2014, Iraq experienced the highest number of domestic terrorist attacks per year.

The GTD differentiates between 22 different types of terrorist attacks that cover attacks with economic, political, religious and social motives. For some of our model specifications in the robustness checks we have selected only attacks targeting political and religious actors and infrastructures. Under this categorization we list, for instance, attacks targeting the government, police, military and religious figures and institutions as well as attacks directed towards food and water supply, telecommunication and transportation.

Legitimacy variables

Our measures of political legitimacy (accountability, efficiency, procedural and distributive fairness) are drawn from the V-Dem dataset built by the Varieties of Democracy Institute (Coppedge et al. 2019). These measures emphasize the multidimensionality and complexity of the concept of regime type by providing separate indices of governmental regimes. The V-Dem dataset was first published in 2016 and to our knowledge with one exception (Morgan and Rubin 2019 which, however, have limited their analysis to the relationship between civil liberties and terrorism), researchers have not examined its democratic and purposive components in connection with terrorist attacks.

The V-Dem database distinguishes between five dimensions of democracy: electoral, liberal, participatory, deliberative, and egalitarian. Each dimension emphasizes different aspects of how governments are formed and replaced, the capacity of governments to implement sound policies and the overall quality of governance. Based on factual data and expert assessment, each country is rated along these dimensions to determine the extent to which it meets, or fails to meet, democratic standards⁵.

We used four governance indexes from the V-Dem dataset which correspond to the components of political legitimacy we outlined above.

- To measure *accountability*, we used the participatory component index which indicates the level of civil society participation, direct popular vote, and elected government power;
- *efficiency* relied on the political corruption index. Governments are efficient if they lack in public sector, executive, legislative and judicial corruption;
- *procedural Fairness* was based on the liberal component index and measures equality before the law and individual liberties as well as judicial and legislative constraints on the executive;
- finally, *distributive Fairness* drew on the egalitarian component index. It measures equal protection, equal access and equal distribution of resources.

The indexes run from 0 to 1 with three decimal places, higher scores indicate more democratic outcomes. Averaging over the countries included in the GTD, all four legitimacy measures follow a general upward trend.

Controls

In this study we acknowledge for possible confounders that may drive the relationship between political legitimacy and domestic terrorism: poverty, population size, regime length civil and international war (the latter is included in the robustness check). To measure poverty, we included data on the GDP per capita. We drew this

⁵ A concise overview of the V-Dem methodology is provided by Coppedge et al. 2019.

information from the PWT database (Feenstra et al. 2015). The impact of poverty on terrorism is highly debated, with some studies finding poverty and poor welfare policies increasing terrorism (Alesina 1996; Burgoon 2016) and others pointing to the reverse effect (Krueger et al. 2003; Abadie 2006).

Information on the (logged) population size was extracted from the PWT, too. The size of a country's population has been shown to be related to terrorist incidents (e.g., Krieger and Meierrieks 2011). For one, more populous countries provide for more perpetrators and targets. For the other, larger countries are likely to be more heterogenous and therefore, more exposed to inter-group tensions (see Burgoon 2006).

Information on regime stability relied on the Polity IV database (Marshall et al. 2018). Regime length is a measure of the number of years since the most recent regime change. Numerous studies have pointed to the fact that newly established regimes often times lack political stability and are therefore more at risk to be overthrown by terrorist groups (see e.g., Piazza 2008).

Finally, we used the UCDP/PRIO Armed Conflict Dataset (Pettersson and Eck 2018) to measure involvement of a country in civil and/or international conflict with at least 1000 battle deaths per year. We used this information to exclude countries that had been involved in civil/and or international war in the years between 1970 and 2018 from some of our model specifications in the robustness checks. Previous studies have suggested that interstate military and civil conflicts make domestic terrorism more likely. They have argued that it is not always possible to empirically discern civil/and or international war onset from terrorist activities. For one, external conflict may spark internal tensions that result in terrorist action from or against foreigners that are involved in the conflict (see Brugoon 2005). For the other, terrorist activity may be more likely in countries during civil wars, given that insurgent groups may revert to terrorist tactics (Freytag et al. 2011).

ANALYTICAL STRATEGY

We used negative binomial regression (NBR) for longitudinal data to test the relationship between measures of political legitimacy and terrorist attacks over time. Domestic terrorist attacks is measured as a count of the number of terrorist attacks in a given country and year, and as such is a relatively rare event. NBR is to favor over the more restrictive Poisson regression for this non-negative integer, because its variance is over-dispersed (Greene 2008). We used a fixed-effects model for panel data to assess the net effect of the legitimacy measures on counts of domestic terrorist attacks within a country. We suspected that numerous potential confounders could interfere with the mechanism we were interested in analyzing: the fixed-effects model specification allowed us to optimally address the issue of omitted variable bias. Moreover, we opted for fixed-effects over

random effects because the interest lied in analyzing the impact of time-variant variables (Allison 2005, Wooldridge 2010)⁶.

We used country-level data for the year 1970-2017 to test the following basic specification:

$$(\text{Count of domestic terrorist attacks})_{it} = \alpha_i + \beta_1(\text{legitimacy})_{it-1} + \beta_2(\text{legitimacy})_{it-1}^2 + X'_{it-1}\gamma + \varepsilon_{it}$$

Where $(\text{Count of domestic terrorist attacks})_{it}$ is the dependent variable measured for each entity i at time t . The variable “country” represents the entities (i) and year represents the time variable (t).

$(\text{legitimacy})_{it-1}$ includes the legitimacy measures accountability, efficiency, procedural and distributive fairness, lagged $t-1$. To test for the curvilinear relationship between measures of political legitimacy and domestic terrorism, we include a squared term for the legitimacy measures in the equation. X'_{it-1} represents the time-variant regressor vector which includes other potential time-variant predictors of domestic terrorism, such as measures of poverty as well as population size and regime length, all lagged at $t-1$. α_i is the unobserved time-invariant entity effect whereas ε_{it} is the error term.

EMPIRICAL RESULTS

Based on the legitimacy framework proposed by this study, we expect that when countries lack in political legitimacy, they experience an increased number of domestic terrorist attacks in successive years. This relationship is, however, not monotonic: we argue that rates of domestic terrorism are particularly high when countries are transitioning from very illegitimate to very legitimate political systems.

Table 2 reports the correlations between domestic terrorist attacks and the legitimacy measures included in the analysis. Domestic terrorist attacks is significantly and positively correlated to accountability, but negatively correlated to efficiency as well as procedural and distributive fairness. At the bivariate level, the relationship between domestic terrorist attacks and procedural fairness is non-significant. As the legitimacy measures are generally highly correlated, we opt for estimating their effects in separate models.

Table 2 about here

We show descriptive statistics for the variables included in the analysis in Table 3.

⁶ in addition, the results of the Hausman test indicated that the entities’ error terms are not correlated and thus, a fixed effect is to prefer over a random effect model.

Table 4 in columns (1) to (4) reports the negative binomial regression estimates of the coefficients for accountability, efficiency, procedural fairness and distributive fairness for the 131-country sample.

Table 3: [about here](#)

Table 4: [about here](#)

The results suggest that political legitimacy impacts domestic terrorism; the direction of the effect, however, partly contradicts the assumptions stipulated in the theoretical section.

From all the legitimacy measures, government accountability (estimated in Model 1) has the strongest and government efficiency (estimated in Model 3) the weakest impact on counts of domestic terrorist attacks. Except for government efficiency, the legitimacy measures have a significant non-monotonic effect on counts of domestic terrorist attacks.

Accountability (H1) and procedural fairness (H3), the two measures of governments' democratic qualities, behave in a similar fashion: for both variables the squared term is negative, hinting to an inverted U-shaped relationship with domestic terrorism. In times where governments are highly accountable and procedurally fair the country experiences less domestic terrorist attacks. The same, however, holds for times where the reverse is true. Governments that grant little rights to their citizen and allow at most restricted forms of participation and local government empowerment are generally preserved from experiencing domestic terrorist attacks. These findings confirm results by other studies (Chenoweth 2010b; Gaibullov et al. 2017).

According to the findings, government efficiency (H2) has a significant positive effect on counts of domestic terrorist attacks (the joint test for the linear and quadratic coefficient is not statistically significant for this variable at the 0,1 % level). On average, as this measure increases by one unit over time, countries are more likely to experience domestic terrorist attacks. We find a curvilinear relationship for distributive fairness (H4), which alike efficiency, measures the purposive qualities of governments. The findings from this study point out that highly welfare-oriented governments, on average, experience higher rates of domestic terrorism. Results from our longitudinal fixed-effects estimates suggest that as societies become more equal and welfare-oriented, they are not necessarily prevented from experiencing extreme forms of political violence. One explanation might be that also within highly equal societies some groups might be discriminated against. In fact, actual or perceived discrimination might even weight more once the gap between the discriminated group and the society at large increases. This finding contradicts results from prior research that found social welfare policies to reduce domestic and international terrorism (e.g., Brugoon 2006 who, however, has used pooled cross-section time-series estimations).

The effect of the legitimacy coefficients on counts of domestic terrorist attacks remain positive and statistically different from zero (at the 0,1 % and 1% level) when controlling for measures of economic power and for relevant structural variables.

The (logged) GDP per capita is significantly positively correlated with counts of domestic terrorist attacks. Differently from other research (e.g., Abadie 2006), the effect of this variable on domestic terrorism is substantial. The direction of the effect, which stands in contrast with the assumption, is interesting, too. For a given country, as the logged GDP per capita varies across time by one unit, the counts of domestic terrorist attacks increase. It suggests that the more a country's standard of living increases, the more the country risks to experience domestic terrorist attacks. What at a first glance might seem counterintuitive is confirmed by other research which argues that countries with a higher economic development provide for more targets and more opportunities to plan and execute terrorist attacks (see e.g., Piazza 2012).

As a country's population grows, the number of domestic terrorist attacks increases, too. This result suggests that societies with a larger population provide for more targets, and for more perpetrators. Moreover, demographic tensions, which can be related to domestic terrorism, are likely to be a bigger issue in more populous societies. The findings are in line with results from multiple other studies (see e.g., Freytag et al. 2011; Krieger and Meierrieks 2011), confirming once again that population size is among the robust predictors in research on causes of terrorism.

We report a significant effect of regime length for all models but Model 1. The magnitude of the effect, is however, very small, suggesting that other mechanisms are more crucial to the understanding of domestic terrorism.

Robustness analysis

We perform three robustness checks on the specification of the regression equation. The results are reported in Table 5 for accountability and efficiency and in Table 6 for procedural and distributive fairness.

As a first robustness check, we estimate the regression of domestic terrorist attacks by including only the attacks directed toward political or religious targets. Second, we estimate the regression of domestic terrorist attacks only for the countries that were not involved in any civil or international conflict over the period of analysis (using the PRIO database). Finally, we estimate the regression equation of transnational terrorist attacks. The results indicate that the effects of accountability are robust against the three model modifications suggesting that accountability is a strong predictor of both domestic and transnational terrorism.

Most interestingly, when excluding countries that went through periods of civil and/or interstate conflict the effect of efficiency becomes more pronounced, revealing an underlying curvilinear relationship. The effects for

procedural fairness become particularly prominent for transnational terrorist attacks, hinting to the fact that this component may add importantly to the understanding of transnational terrorism. Finally, distributive fairness seems to be the least robust predictors, as it remains statistically significant only in the model that restricts the analysis to political or religious attacks.

In order to be able to better compare the findings with previous research we include the popular polity2 score as a measure for democracy in our analysis⁷. We run the same model specification with the polity 2 score instead of the legitimacy measures taken from the V-Dem database. Similarly to our measures of democratic qualities, democracy, too, shows an inverted U-Shaped relationship with counts of domestic terrorist attacks (at the 0,1 % level). The effect size of one unit increase in democracy across time on counts of terrorist attacks is, however, very small. Moreover, as discussed previously, this measure combines different dimensions of political legitimacy and as such does not allow for a more in-depth analysis of the relationship between political legitimacy and domestic terrorism.

DISCUSSION AND CONCLUSION

Findings from the empirical analysis presented in this paper have shed light on the hypothesized nexus between political legitimacy and terrorism. First, we have demonstrated that political legitimacy is a pluralistic concept that entails several varied components. Second, we find that some of these components matter more to the understanding of terrorism than others, with some having only limited implications. Third, we conclude that based on this result, predicting the impact of political legitimacy on terrorism relying on a composite indicator that covers only specific aspects of the concept, such as regime types and political freedom (see, e.g., Wilson and Piazza 2013), presents some serious shortcomings.

The concept of political legitimacy covers both democratic and purposive qualities. Previous research has mainly focused on the former, neglecting the aspects of efficiency and distributive fairness that are core components of a legitimate political system (Weatherford 1992).

Our study has investigated to which extent measures of democratic and purposive qualities influence domestic terrorist attacks. We have used four distinct measures of political legitimacy: accountability, efficiency, procedural and distributive fairness. Our results suggest that accountability and procedural fairness, which pertain to the realm of the democratic qualities, follow a different pattern to efficiency and distributive fairness, both of which measure purposive qualities of political systems.

⁷ This analysis is not reported in this paper but available from the authors upon request.

We find strong and consistent evidence that government accountability, measured through active participation by citizens in political processes as well as the empowerment of the elected government, yields to significantly lower rates of domestic terrorism. As the effect of government accountability on domestic terrorist activities presents an inverted U-shape, low rates of domestic terrorism are also recorded for the times when governments show lowest accountability. For most specifications, procedural fairness, or the enforcement of constitutionally protected civil liberties, strong rule of law and independent judiciary, follows a similar trend to the measure of government accountability. These findings align with previous research that used measures of political freedom (e.g., Abadie 2006) and democratization (e.g., Gaibullov et al 2017).

Our results suggest that of all legitimacy measures, government efficiency matters the least. The fact that public service is highly credible, capable of designing effective policies and committed to enforcing those policies in a timely manner has few implications for a country's capabilities to successfully prevent the occurrence of domestic terrorism. On the contrary, the weak but positive effect of this measure reveals that in times when countries successfully prevent public sector and judicial corruption, they experience domestic terrorist attacks at higher rates. In the model specifications where we exclude the involvement of civil and or interstate conflict this measure gains even more relevance.

Finally, our findings suggest that high standards of equal protection, access and distribution of resources within a society put the country and its citizens at increased risk of experiencing domestic terrorist attacks. This finding is puzzling and stands in sharp contrast to our theoretical assumption. We speculate that this effect is driven by the fact that societies meeting very high standards of equal access and equal distribution present more targets for potential domestic terrorism. A similar effect is found for GDP per capita in this study and confirmed by multiple other research findings (e.g., Alesina 1996; Piazza 2012; Burgoon 2016). The findings may also be explained by the fact that in highly welfare-oriented societies too, discrimination against specific minorities group occurs. In fact, the gap between discriminated-against minorities and the majority population might be even more pronounced in such societies (see e.g., Koch 2017). The fact that high scores on both measures of purposive qualities relate to a greater exposure to domestic terrorist attacks might explain why highly welfare-oriented societies, such as the Swedish and German one, still suffer from this form of political violence.

This study holds some limitations. Most importantly, data on terrorism is collected from media sources. This can result in a reporting bias, because autocracies and other non-democratic system are likely to restrict coverage of terrorist attacks (see e.g., Freytag et al. 2011; Chenoweth 2013). We opted for a fixed-effect model specification, as we were particularly keen in exploring the net effects of political legitimacy on domestic terrorism whilst controlling for unmeasured characteristics at the country-level. This model choice comes with important restrictions: for instance, it discards the between-country variation and prevents the possibility to estimate time-invariant covariates. Still, the ability of eliminating potentially large sources of bias by controlling for stable characteristics of countries in our analysis outweighs the mentioned disadvantages (see Allison 2005).

Finally, we have based our analysis on aggregated country-level data: our analyses focus on formal structures and aggregate processes and does not allow us to draw conclusions beyond the aggregate level. These results should be supplemented by more in-depth investigation of the legitimacy mechanism achieved, for instance, through regional and country case studies and analyses performed at the individual level.

Still, the results presented in this paper reveal that at the country-level measures of government accountability and procedural fairness in particular, but also of efficiency and distributive fairness matter for the study of domestic terrorism. Knowing how these measures relate to terrorist activities will advance our understanding of domestic terrorism and assist governments in designing counter terrorism policies.

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Table 1: Political Legitimacy Components

Level of analysis	Democratic qualities	Purposive qualities
Ruler	Accountability	Efficiency
	wide and effective participation	minimal waste of time and resources
	transparency	legality
Ruled	Procedural Fairness	Distributive Fairness
	protection of rights, open and equal access to decision arenas	collective welfare gains
	regularity, predictability	equal distribution of costs

Table 2: Correlation matrix

	1	2	3	4	5
Domestic terrorist attacks	1				
Accountability	0.0545***	1			
Efficiency	-0.0721***	0.4527***	1		
Procedural fairness	-0.0049	0.8116***	0.6740 ***	1	
Distributive fairness	-0.0828***	0.6073***	0.7320 ***	0.7720***	1

Pearsons' correlation,

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3: Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Terrorism					
terrorist attacks (domestic)	5669	21.1	121.5	0	3918
Legitimacy variables					
Accountability	5669	0.42	0.21	0.021	0.89
Efficiency	5669	0.51	0.31	0.0060	0.98
Procedural fairness	5669	0.56	0.29	0.0040	0.98
Distributive fairness	5669	0.59	0.23	0.056	0.98
Economic variables					
GDP per capita (log)	5669	8,94	1,27	6,2	11,9
Structural variables					
population (log)	5669	2.21	1.54	-2.04	7.25
regime length	5669	25.5	31.4	0	208

Table 4: Political legitimacy and terrorist attacks 1970-2017

Dependent variable: Counts of domestic terrorist attacks								
	(1) Accountability		(2) Efficiency		(3) Procedural Fairness		(4) Distributive Fairness	
Legitimacy variables								
accountability	5.64***	(9.1)						
accountability sqr	-5.66***	(-7.5)						
efficiency			0.28*	(-2.53)				
efficiency sqr			-					
procedural fairness					1.45**	(-3.1)		
procedural fairness sqr					-0.89*	(-2.0)		
distributive fairness							-0.81	(-1.4)
distributive fairness sqr							1.34**	-2.6
Economic variable								
log GDP per capita	0.26***	(8.8)	0.26***	(8.4)	0.25***	(8.1)	0.21***	(6.6)
Structural variables								
population	0.20***	(9.7)	0.21***	(10.0)	0.21***	(9.9)	0.23***	(11.2)
regime stability	0.00**	(-2.7)	-0.01***	(-6.2)	-0.01***	(-5.2)	-0.01***	(-6.5)
Constant	-6.53***	(-16.8)	-5.31***	(-13.0)	-5.79***	(-14.6)	-5.04***	(-12.7)
Rank	51		51		51		51	
Log lik.	-10677		-10700		-10691		-10723	
Chi-squared	1090.47		992.68		1014.99		1030.69	
BIC	21794		21840		21822		21885	
AIC	21456		21502		21484		21547	
Observations	5570		5538		5541		5570	

z statistics in parentheses,

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Panel data, negative binomial regression with fixed-effects for country and year. All specifications include year dummies. Legitimacy variables and controls are lagged t-1.

Table 5: Robustness checks for accountability (Model 1 to Model 3) and efficiency (Model 4 to Model 6)

Dependent variable: counts of terrorist attacks	(1) Domestic political and religious attacks	(2) Domestic without involvement in conflict	(3) Trans- national attacks	(4) Domestic political and religious attacks	(5) Domestic without involvement in conflicts	(6) Trans- national attacks
accountability	3.65*** (5.7)	6.98*** (5.6)	4.38*** (5.9)			
accountability squared	-3.74*** (-4.8)	-6.59*** (-4.6)	-4.48*** (-4.9)			
efficiency				.32** (2.59)	-5.02** (-5.0)	0.09 (-0.6)
efficiency squared				- (-)	3.83*** (4.4)	- (-)
log GDP per capita	0.10** (3.1)	0.22** (3.2)	0.26*** (6.6)	0.07* (2.1)	0.51*** (6.7)	0.27*** (6.3)
population	-0.08** (-3.2)	0.17*** (3.8)	0.21*** (6.2)	-0.07** (-2.9)	0.15** (3.2)	0.25*** (7.7)
regime stability	0.00 (0.4)	-0.01* (-2.4)	-0.01*** (-4.9)	-0.00 (-1.7)	-0.01*** (-4.3)	-0.01*** (-6.6)
Constant	-2.40*** (-5.7)	-6.18*** (-7.7)	-4.84*** (-11.7)	-1.47** (-3.2)	-6.99*** (-8.1)	-4.16*** (-9.0)
Political targets only	Yes	No	No	Yes	No	No
Involvement in civil/transnational conflict	Yes	No	Yes	Yes	No	Yes
Transnational attacks	No	No	Yes	No	No	Yes
Rank	51	51	51	51	51	51
Log lik.	-8025	-2531	-5884	-8028	-2500	-5881
Chi-squared	393.24	328.98	584.71	357.10	320.92	541.99
BIC	16445	5453	12204	16451	5389	12199
AIC	16152	5165	11869	16159	5101	11864
Observations	2293	2127	5254	2288	2095	5222

z statistics in parentheses,

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Panel data, negative binomial regression with fixed-effects for country and year. All specifications include year dummies. Legitimacy variables are lagged t-1. Controls are included lagged t-1 but not reported.

Table 6: Robustness checks for procedural fairness (Model 1 to Model 3) and distributive fairness (Model 4 to Model 6)

Dependent variable: counts of terrorist attacks	(1) Domestic political and religious attacks	(2) Domestic without involvements in conflict	(3) Trans-national attacks	(4) Domestic political and religious attacks	(5) Domestic without involvements in conflict	(6) Trans-national attacks
proc. fairness	1.18*	(2.4)	0.87**	(3.7)	3.78***	(6.4)
proc. fairness squared	-0.83	(-1.8)			-3.13***	(-5.6)
dist. fairness					-1.17*	(-2.1)
dist. fairness squared					1.58**	(3.1)
log GDP per capita	0.09**	(2.8)	0.18*	(2.3)	0.28***	(6.8)
population	-0.07**	(-3.1)	0.11*	(2.2)	0.24***	(7.4)
regime stability	-0.00	(-1.0)	-0.01***	(-4.9)	-0.01***	(-5.4)
Constant	-2.04***	(-4.6)	-4.28***	(-4.7)	-5.14***	(-11.8)
Political targets only	Yes	No	No	Yes	No	No
Involvement in civil/transnational conflict	Yes	No	Yes	Yes	No	Yes
Transnational attacks	No	No	Yes	No	No	Yes
Rank	51	51	51	51	51	51
Log lik.	-8029	-2508	-5860	-8038	-2550	-5902
Chi-squared	360.83	302.46	591.87	368.03	298.77	546.88
BIC	16452	5406	12157	16471	5491	12241
AIC	16159	5118	11822	16179	5202	11906
Observations	2289	2098	5225	2293	2127	5254

z statistics in parentheses,

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Panel data, negative binomial regression with fixed-effects for country and year. All specifications include year dummies. Controls are included lagged t-1 but not reported.

References

- Abadie, A. (2006). Poverty, political freedom, and the roots of terrorism. *American Economic Review*, 96(2), 50-56.
- Adegbulu, F. (2013). Boko Haram: the emergence of a terrorist sect in Nigeria 2009–2013. *African Identities*, 11(3), 260-273.
- Alesina, A.; Ozler, S.; Roubini, N.; and Swagel, P. Political Instability and Economic Growth (1996). *Journal of Economic Growth*, 1(2), pp. 189-211.
- Allison, P. D. (2005). *Fixed effects regression methods for longitudinal data using SAS*. Cary, NC: Sas Institute.
- Atran S. (2003). Genesis of suicide terrorism. *Science* 7 (3):1534–39.
- Bove, V., and Böhmelt, T. (2016). Does immigration induce terrorism?. *The Journal of Politics*, 78(2), 572-588.
- Burgoon, B. (2006). On welfare and terrorism: Social welfare policies and political–economic roots of terrorism. *Journal of Conflict Resolution* 50 (2) 176–203.
- Chenoweth, E. (2013). Terrorism and democracy. *Annual Review of Political Science* 16 (2013): 355-378.
- Chenoweth, E. (2010a). Democratic competition and terrorist activity. *The Journal of Politics*, 72(1), 16-30.
- Chenoweth E. (2010b). Democratic pieces: democratization and the origins of terrorism. In *Coping with Contemporary Terrorism: Origins, Escalation, Counter-strategies, and Responses*, ed. WR Thompson, R Reuveny, pp. 97–123. Albany, NY: SUNY Press.
- Coppedge, M.; Gerring J., Knutsen, C.H; Lindberg, S.I.; Teorell, J.; Altman, D.; Bernhard, M.; Fish, M. S.; Glynn, A.; Hicken, A.; Lührmann, A.; Marquardt, K. L.; McMann, K.; Paxton, P.; Pemstein, D.; Seim, B.; Sigman, R.; Skaaning, S.-E.; Staton, J.; Wilson, S.; Cornell, A.; Gastaldi, L.; Gjerløw, H.; Ilchenko, N.; Krusell, J.; Maxwell, L.; Mechkova, V.; Medzihorsky, J.; Pernes, J.; von Römer, J.; Stepanova, N.; Sundström, A.; Tzelgov, E.; Wang, Y.; Wig, T. and Ziblatt, D.. 2019. "V-Dem [Country-Year/Country-Date] Dataset v9" Varieties of Democracy (V-Dem) Project. <https://doi.org/10.23696/vdemcy19>
- Crenshaw, M. (2002). The causes of terrorism. In *Violence: A Reader*, ed. C Besteman, pp. 99–118. New York: NY Univ. Press
- Crenshaw, M. (1983). *Terrorism, Legitimacy, and Power: The Consequences of Political Violence*. Connecticut.
- Dugan, L. and Chenoweth, E. (2012). Moving beyond deterrence: The effectiveness of raising the expected utility of abstaining from terrorism in Israel. *American Sociological Review* 77 (4) : 597-624.
- Enders, W.; Sandler, T.; and Gaibulloev, K. (2011). Domestic versus transnational terrorism: Data, decomposition, and dynamics. *Journal of Peace Research*, 48(3), 319-337.
- Feenstra, R. C.; Inklaar, R.; and Timmer, M. P. (2015). The next generation of the Penn World Table. *American Economic Review*, 105(10), 3150-82.
- Fox, S. and Hoelscher, K. (2012). Political order, development and social violence. *Journal of Peace Research*, 49(3), 431-444.
- Freilich, J. D.; Adamczyk, A.; Chermak, S. M.; Boyd, K.A.; and Parkin, W. S. (2015). Investigating the Applicability of Macro-Level Criminology Theory to Terrorism: A County-Level Analysis. *Journal of*

- Quantitative Criminology*, 31 (3): 383–411.
- Freytag, A.; Krüger, J. J.; Meierrieks, D.: and Schneider, F. (2011). The origins of terrorism: Cross-country estimates of socio-economic determinants of terrorism. *European Journal of Political Economy*, 27, 5-16.
- Gaibullov, K.; Piazza, J. A.; and Sandler, T. (2017). Regime types and terrorism. *International Organization*, 71(3), 491-522.
- Gleditsch, N. P.; Wallensteen, P.; Eriksson, M.; Sollenberg, M.; and Strand, H. (2002). Armed Conflict 1946–2001: A New Dataset. *Journal of Peace Research* 39(5): 615–637.
- Goldstone, J. A.; Bates, R. H.; Epstein, D. L.; Gurr, T. R.; Lustik, M. B.; Marshall, M. G.; ... and Woodward, M. (2010). A global model for forecasting political instability. *American Journal of Political Science*, 54(1), 190-208.
- Greene, W. H. (2008). *Econometric Analysis*, 6th ed. Upper Saddle River, NJ: Pearson Prentice Hall.
- Horgan, J. (2008). From Profiles to Pathways and Roots to Routes: Perspectives from Psychology on Radicalization into Terrorism. *The Annals of the American Academy of Political and Social Science* 618 (1): 80–94.
- Hurd, I (2007). Legitimacy. Encyclopedia Princetoniensis. Retrived from <https://pesd.princeton.edu/?q=about#people> on 26. 01.2019
- Kaufmann, D.; Kraay, A.; and Mastruzzi, M. (2005). *Governance matters IV: governance indicators for 1996-2004*. The World Bank.
- Kluch, S. P.; and Vaux, A. (2016). The non-random nature of terrorism: an exploration of where and how global trends of terrorism have developed over 40 years. *Studies in Conflict & Terrorism*, 39(12), 1031-1049.
- Koch, I. (2017). Moving beyond Punitivism: Punishment, State Failure and Democracy at the Margins. *Punishment & Society*, 19 (2). 1462-4745.
- Krieger, T.; and Meierrieks, D. (2011). What causes terrorism?. *Public Choice*, 147(1-2), 3-27.
- Krueger, Alan B. and Laitin, David D. (2003). Kto Kogo? A Cross-Country Study of the Origins and Targets of Terrorism. Unpublished Paper.
- Kurrild-Klitgaard, P.; Justesen, M.K.; and Klemmensen R. (2006). The political economy of freedom, democracy, and transnational terrorism. *Public Choice*, 128(1), 289–315.
- LaFree, G.; Dugan, L.; and Miller, E. (2015). *Putting Terrorism in Context: Lessons from the Global Terrorism Database*. London, England: Routledge.
- LaFree, G.; and Dugan, L. (2009). Research on terrorism and countering terrorism. *Crime and Justice*, 38(1), 413-477.
- LaFree, G.; and Ackerman, G. (2009). The empirical study of terrorism: Social and legal research. *Annual Review of Law and Social Science*, 5, 347-374.
- LaFree, G., and Dugan, L. (2007). Introducing the global terrorism data base. *Terrorism and Political Violence*, 19, 181–204.
- Li, Q. (2005). Does Democracy Produce or Reduce Transnational Terrorist Incidents? *Journal of Conflict Resolution*, 49 (2):278–97.

- Li, Q. and Schaub, D. (2004). Economic globalization and transnational terrorist incidents: A pooled time-series cross-sectional analysis. *Journal of Conflict Resolution*, 48 (2) 230–58.
- Marshall, M. G.; Gurr, T. R.; and Jaggers, K. (2018). *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2017. Dataset Users' Manual*. Retrieved from <https://www.systemicpeace.org/polity>
- Masters, D.; and Hoen, P. (2012). State Legitimacy and Terrorism. *Democracy and Security*, 8(4), 337-357.
- Morgan, R. K. and Rubin, M. A. (2020). Terrorism and the Varieties of Civil Liberties. *V-Dem Working Paper*.
- Murshed, S. M.; and Pavan, S. (2011). Identity and Islamic Radicalization in Western Europe. *Civil Wars*, 13(3), 259-279.
- Neumayer, E. (2003). Good policy can lower violent crime: Evidence from a cross-national panel of homicide rates, 1980–97. *Journal of Peace Research*, 40(6), 619-640.
- Newman, E. (2007). Weak states, state failure, and terrorism. *Terrorism and Political Violence*, 19(4), 463-488.
- Orsini, A. (2009). *Anatomia delle Brigate Rosse. Le radici ideologiche del terrorismo rivoluzionario*. Rubbettino.
- Paternoster, R.; Bachman, R.; Brame, R.; and Sherman, L. W. (1997). Do fair procedures matter-the effect of procedural justice on spouse assault. *Law & Society Review*, 31, 163.
- Pemstein, D.; Marquardt, K. L.; Tzelgov, E.; Wang, Y.-T.; Medzihorsky, J.; Krusell, J.; Miri, F.; and von Römer, J. (2019). *The V-Dem Measurement Model: Latent Variable Analysis for Cross-National and Cross-Temporal Expert-Coded Data*. V-Dem Working Paper No. 21. 4th edition. University of Gothenburg: Varieties of Democracy Institute.
- Pettersson, T.; Högladh, S.; and Öberg, M. (2019). Organized violence, 1989-2018 and peace agreements. *Journal of Peace Research*, 56(4).
- Pettersson, T.; and Eck, K. (2018). Organized violence, 1989–2017. *Journal of Peace Research*, 55(4), 535-547.
- Pflieger, K. (2011). *Die Rote Armee Fraktion-RAF*. Nomos Verlagsgesellschaft mbH & Co. KG.
- Piazza, J. A. (2012). Regime age and terrorism: Are new democracies prone to terrorism? Presented at Annual Meeting of the International Students Association, 53rd, San Diego, Apr. 1–4.
- Piazza, J. A. (2011). Poverty, minority economic discrimination, and domestic terrorism. *Journal of Peace Research*, 48(3), 339-353
- Piazza, J. A. (2008). Incubators of terror: Do failed and failing states promote transnational terrorism?. *International Studies Quarterly*, 52(3), 469-488.
- Savun, B. and Phillips, B. J. (2009). Democracy, foreign policy, and terrorism. *Journal of Conflict Resolution*, 53(6), 878-904.
- Schmid, A. P. (2013). Radicalisation, De-Radicalisation, Counter-Radicalisation: A Conceptual Discussion and Literature review. Report 97. Retrieved from <http://www.icct.nl/download/file/ICCT-Schmid-Radicalisation-De-Radicalisation-Counter-Radicalisation-March-2013.pdf> on 20.07.2018
- Sunshine, J., and Tyler, T. (2003). The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing. *Law and Society Review*, 37:513–48.
- Tyler, T. R., Schulhofer, S. and Huq, A. (2010). Legitimacy and deterrence effects in counterterrorism policing:

- A study of Muslim Americans. *Law and Society Review*, 44 (2), 365-402.
- Wade, S. J.; and Reiter, D. (2007). Does democracy matter? Regime type and suicide terrorism. *Journal of Conflict Resolution*, 51(2), 329-348
- Weatherford, M. S. (1992). Measuring political legitimacy. *American Political Science Review*, 86(1), 149-166.
- Weber, M. (1968). *On charisma and institution building*. Edited by S.N. Eisendstadt. University of Chicago Press.
- Weber, M. (1956). *Staatssoziologie*. Edited by Johannes Winckelmann. Berlin.
- Wilson, M. C.; and Piazza, J. A. (2013). Autocracies and terrorism: Conditioning effects of authoritarian regime type on terrorist attacks. *American Journal of Political Science*, 57(4), 941-955.
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. MIT Press.