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Democracy Causes Terrorism:
Methodological Flaws, a New Approach, and a New Answer

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Abstract

A critical analysis of the dominant quantitative methodologies used to analyze international terrorism reveals serious flaws in the conceptualization of key terms, the measurement of key variables and the statistical estimation of key relationships, all of which lead to unsubstantiated results. I deconstruct these issues, and extend the literature on the relationship of regime type and acts of terrorism in the following ways: I add to the quantitative literature on the subject; I use an updated database on global terrorist events (START--Global Terrorism Database) which includes domestic and international events; and I analyze rates of terrorism by a variety of categories of system types across both space and time (all countries, 1970-2012). I demonstrate that democracies are not the primary targets of terrorists, and that much more work needs to be done to understand the causes of extreme political violence, given its non-random, yet highly stochastic nature.

Brief Biography

Dr. Bryan Brophy-Baermann is an assistant professor of political science, and Chair of the Social Sciences Division at Lesley University in Cambridge, MA. His training and experience are largely within the sub-fields of international relations and comparative politics, with emphases on political violence and terrorism, U.S. foreign policy, and environmental politics.
Democracy Causes Terrorism:
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One of the most fundamental questions asked about terrorism is this: do democracies invite or cause more acts of terrorism than non-democracies? Going back over forty years to Paul Wilkinson’s *Terrorism and the Liberal State* ([1977] 1986 revised ed.), the presumption, and the theories based on that presumption, have asserted that democracies are, in fact, particularly vulnerable to acts of terror. Moreover, they argue that terrorists target democracies in particular. These long held beliefs have been challenged more recently. Scholars on both sides of the issue believe they have the evidence to support their theoretical claims, but the results are mixed and sometimes based on dubious data. Given this lack of academic consensus, it is not a mystery that the dominant cultural paradigm in the United States, if not in the West more generally, remains as valid in the presidency of Barack Obama as it was under President Ronald Reagan (and the decades in between): democracies are at greatest risk (Levitt 1988; Ross 1993; Hoffman 2006, and Wilkinson’s more recent book, 2011).

This paper challenges the dominant paradigm, the conclusions about the positive relationship between democracies and terrorism, by addressing the following questions: how have we been testing democracy/terrorism hypotheses? What are the dominant methodologies? What are our sources of data? How generalizable are the results? Is large-N quantitative analysis of international terrorism the best way to test the democracy/terrorism hypothesis? Does the dominant paradigm rest on solid, empirical ground? I argue that the answers to these questions are these: the methods are inappropriate given the data being used; the data itself rarely matches the questions being
asked; and, given these two findings, I argue that the results of most quantitative analysis of terrorism cannot be generalized and that the large-N approach is not the best approach to use to test what is essentially a nation-state level problem. These methodological issues make coming to a consensus about an empirically validated reality of the democracy/terrorism relationship particularly difficult. To address these methodological challenges, I argue that we should take a step back from the statistical trees and look at the forest of the levels and trends of terrorism as a whole, over time, to see that there is no clear-cut empirical support for the longstanding belief that democracies experience more terrorism than non-democracies.

**Previous Literature**

Historically, terrorism has been studied from a variety of perspectives: terrorists as psychologically unstable individuals (e.g. Crenshaw 1988); terrorists as rational, strategic political actors who calculate costs and benefits and negotiate (e.g. Atkinson et al. 1987); terrorists as domestic or international criminals (e.g. Bassiouni 1975); terrorists as numerically and materially disadvantaged political actors challenging oppression; terrorists as guerilla warriors or revolutionaries (e.g. Thornton 1964); counter- terrorism policies, strategies and effectiveness (e.g. Enders and Sandler 1993); and, less often, state actors as terrorists (e.g. Herman 1982). Most of this research has been focused on: a specific case or incident; a set of interviews; a specific group or acts of violence in a specific place during a specific time (e.g. Palmer 1994; Levitt 2006). This type of research leaned towards the detailed case study, the qualitative, non-generalizable side of the methodological spectrum (with the notable exceptions of the bargaining and policy analysis work) (Atkinson et al. 1987; Sandler and Scott 1987). However, due to the
nature of the topic (its immediacy, its dramatic effects, and the need to “end” it), results from case studies or rare events have been often held up as being, in fact, generalizable (how could we study a group and not know what to do?). The findings were made public via conferences or mass media as facts we “know” (with certainty!) about terrorism. In the past twenty years, there has been a push towards the other side of the methodological spectrum, the large-N, less detailed (modeled), quantified, statistical end. These scholars have sought to build on what we have learned from the case study work, to attempt to build a more generalizable set of findings on the democracy/terrorism hypothesis (as only one of the topics subjected to econometric analysis) that would hold across space and time.

Young and Findley (2011) do a remarkable and much-needed meta-analysis of the research on terrorism across a variety of disciplines. They show that the number of articles focusing on terrorism, published in leading academic journals, has skyrocketed since 2001 (as we might have guessed), but that we have yet to assemble a “lessons learned” from all of that new literature, especially in the more recent quantitative literature. They point out a number of problems in the relatively scant quantitative literature. From this meta-analysis, we know that the literature on terrorism is growing, but is not particularly systematic or cumulative.

One of the goals of this paper is to expand on Young and Findley’s identification of methodological problems, most prominently, data/concept problems (Young and Findley 2011, 412). A particularly relevant finding from their analysis is this: specific types of democratic participation are unrelated to three variations of terrorism: transnational, suicide and “exporting” terrorism (Young and Findley 2011, 428). This
finding is a beginning to challenging the dominant paradigm—if democratic participation is unrelated to different types of terrorism, on what does the asserted relationship rest? I pursue a more detailed challenge to the democracy/terrorism hypothesis below.

Li (2005) summarizes articulately the underlying arguments of the competing hypotheses and goes on to discuss the competing quantitative results:

The first argument expects that democracy reduces transnational terrorism. Democratic societies offer access for citizens to seek recourse to their grievances, while democratic rules ensure the nonviolent resolution of conflicts of interest. Hence, groups in democratic societies are more likely to pursue nonviolent alternatives rather than costly terrorist activities to further their interest. The second argument, however, suggests that democracy encourages terrorism. Democratic countries provide relatively more freedom of speech, movement, and association, permitting parochial interests to get organized and reducing the costs of conducting terrorist activities. Open democratic societies therefore facilitate terrorism (Li 2005, 278).


Of the journal articles published on the specific question of democracy and terrorism in the last ten years, Li’s (2005) analysis is closest to what I am trying to test, so I focus on his work as representative of the types of problems I see in the quantitative analysis of terrorism. The first major problem in the quantitative literature is the use of transnational terrorism events as the data source to test hypotheses about democracy and terrorism (with two exceptions, Eubank and Weinberg 1998; Young and Findley 2011). In the summary of arguments presented by Li (see above), it is pointed out that democracies create less violent environments because citizens have options for peaceful
conflict resolution. How would this local environment affect populations residing outside of that bounded political space (transnational actors)? Or, how would this affect those
democratic citizens were they to want to act transnationally, and want to do so because
the target of their actions was either democratic or non-democratic? Or, what about the
case of a procedural democracy in which citizens’/constituents’ voices could not be heard
or registered (e.g. a lack of substantive democracy)? In fact, whatever the political system
from which the person who might engage in an act of terrorism originates, when that
person acts outside of his or her polity, he or she is acting in an “authoritarian” setting.
Democratic politics is the stuff of domestic affairs. Crossing borders to act means you are
either acting in an “international” setting, or you are acting as an “outsider” to the
officially regulated politics of a nation state (e.g., who can vote? who can lobby? who can
form a political party or interest group? etc.). These are settings in which a person cannot
formally register a complaint, a setting in which the government is not obligated to listen
or to respond because the outside person is not a constituent, a setting in which outside
actors influence on domestic decision-making is limited. In practice, all transnational acts
of terrorism are actions within a non-democratic political structure.7 The fundamental
argument about democracy’s effects would have to be limited to domestic terrorism,
unless further theoretical development could tie transnational acts to a domestic
environment (which has not been done, and given my argument above, would be difficult
to argue). Using international terrorist events data to analyze largely domestically
occurring actions does not make sense. In addition to the logic of the data/issue problem,
Li (2005, 280) states quite clearly the pragmatic case for using international incidents of
terrorism, “Because extant empirical evidence in the democracy-terrorism literature is
exclusively based on transnational terrorism data, I choose to focus on transnational terrorist incidents in this article.” Not only is there no well-developed theoretical connection between democracy and transnational terrorism, transnational events data is used in most analyses, simply because it has been used before (mostly, if not exclusively). The source of data is atheoretic at best and inappropriate and misleading at worst.

A second major problem in the quantitative literature, exemplified by Li (2005) and Li and Schaub (2004), is the common use of “accepted” control variables. Accepted control variables are described by the authors of quantitative analyses as a set of “background” variables, the parts of an explanation that lay outside of the very specific hypotheses a researcher is trying to test. Once these variables have been used in one study, they are often used repeatedly without further investigation or justification; they are inserted into a model because concepts represented by these control variables “probably” have some sort of effect on the predicted relationship. This statistical methodology is a way to create a more experimental setting in the natural world: hold all of “these things” constant, and test for the interaction of the few “interesting” variables under study. My critique is that “accepted control variables” are correlational controls, added without significant theorizing (or with faulty theorizing). This strategy muddles the findings of a statistical model. While I do not argue that all econometric analyses of terrorism have to proceed in a stepwise fashion, I do believe establishing a fundamental relationship between the variables under study is an important first step, before refining the relationship by controlling for factors that may be leading to a false (Type I error) conclusion (because of, for example, potential over-prediction or spuriousness). In both
of the articles listed here, the control variables are merely listed and described (in terms of values, measurement, etc.)—without theoretical justification. I address my methodological concerns about the commonly used independent control variables below (the list comes from Li 2005, 295).

GDP per capita and Income inequality is meant to capture one of the common beliefs about the causes of terrorism: “poverty” causes dissatisfaction, which causes, ultimately, violent behavior; and if this is true, we need to “drain the swamp” (Piazza 2007). However, a quick reflection of the dominant terrorism of the 1970s should give pause to those thinking that being poor drives terrorism. Much of the terrorism in the 1970s was in places like Italy, Spain and West Germany and the UK (Northern Ireland and Great Britain in particular), certainly not the richest countries in the world, but not the poorest, and certainly not failed or failing states (we could debate the democratic stability of two of the cases, but…. Moreover, we know that those who acknowledge being the perpetrators of acts of terrorism are often educated and wealthy, sociable and, up until the act at least, seen as psychologically stable. Yes, the poor and unemployed engage in extreme acts of political violence too. However, the depth of poverty and/or the range of inequality do not, in themselves, cause political conflict to the point of pushing someone to commit violence in general, and terrorist violence in particular. There are many steps between frustration and disillusionment and blowing up a marketplace full of civilians. Simply put, a mix of people from a variety of economic backgrounds have engaged in acts of terrorism across time and space, and there is no obvious theoretical reason to think wealth—either at the individual level or at the nation-state level countries—would produce fewer events. One quick thought experiment: does economic
happiness necessarily produce political happiness? One might go so far as to argue that economic success produces a level of self-efficacy that could lead to disruptive political behavior.

**Regime durability:** this is a variable based on regime “change” and “new” democracies. Li cites the previously mentioned Eubank and Weinberg (1998) and Eyerman (1998) to claim that the confounding effects of these transition periods must be accounted for. First, the Eubank and Weinberg study is limited because it is based on a two-year period of analysis. The Eyerman study is limited because of its data (ITERATE)—see above. More theoretically, what would be behind this relationship? Terrorism is an act of violence outside the norms of any society and the international system—why would a group seek to ostracize itself right after a government has changed? And would this relationship hold true in ANY country with a regime change and ANY country in the early stages of democratization? I have severe doubts, given that many countries democratize, but relatively few suffer from large numbers of terrorist incidents. Without a strong theoretical tie between transition and extra-normal political violence, I see no reason to label the variable as “too important to exclude” (Li 2005, 286).

**Size** is a variable that means: the bigger the population, logged, the more (or less) terrorism; the direction of the relationship is not listed in the variable list, but in the findings section of the articles, the relationship is positive. No explanation for the direction of the predicted relationship is provided. Size is most likely highly correlated with GDP per capita (another methodological problem). On some level it makes sense that the more people—in a constrained space—the more likely you’ll find an outlier, but
that is hardly the kind of theorizing we should be using to model acts of terrorism. Moreover, if the space weren’t too constrained (e.g. USA/China/Russia), how would “size” come to matter? In the absence of an obvious theory, and without an explanation of a causal relationship where, it seems to me, there is no plausible causal relationship, I would argue that the variable should be left out of the model.

**Government capability** is an index variable of government “strength.” No explanation is given, again. What is the plausible relationship between government power and terrorism? If a government is strong, it might seem unassailable, unmovable, more authoritarian (force/power as the ultimate source of conflict resolution), and less likely to be amendable to demands by citizens. If this were true, a person or group might think the wisest choice is to send a message to the government, rather than attacking it head-on. In this scenario, government strength might lead to more terrorism (positive). However, and on the contrary, as a control variable, “strength” is thought to have a negative influence.

If a government is weak, it might be vulnerable to external pressure, including a bloody or bloodless coup—but in this case, why would anyone want to send a message—wouldn’t a more strategic and rational choice be to attack the weak government directly to show its inadequacies and to, perhaps, loosen its grip on power? A weak government might not even have the capacity to “get” a message, if it is having a difficult time maintaining power in the first place (failed or failing state). In this instance, an act of terrorism might simply be categorized as yet another “enemy” attack on the crumbling edifice of governmental power, and this would look more like insurgency or rebellion. Again, the relationship between capacity and terrorism is less than obvious.
Past incident is a variable that maintains: if it’s happened before it’ll happen again. There is more merit in this control variable than any other I’ve reviewed so far, and even I have used a lagged dependent variable of this type in my own work (Brophy-Baermann and Conybeare 1994). The theory behind using a lagged dependent variable includes the following assumptions: the behavior has become regularized/normalized; the underlying conflict process is a long-term issue; examples of past success—if even only the perception of success, leads to imitation. However, the frequent inclusion of this variable in the majority of recent quantitative analyses, often without clear theoretical justification, requires a better-developed rationale to be created. More work needs to be done to complete the theoretical framework explaining how “the average number of past events” in a certain set of years “predict” or “explain” current rates. There is nothing useful or explanatory in the statement: “We’ve averaged ten murders per year in our city for the past twenty years so we’ll probably face ten murders in our fine city this year.” This is a prediction but not an explanation, and predicting the long-term average doesn’t tell us much. It is a best guess. Moreover, this “typical” rate should be captured in the constant of the equation—the typical amount of terrorism in the system controlling for all other factors. One might argue that acts of terrorism in the past are indicators of what is possible in the future. Setting this “mood” or “climate” of terrorism is a qualitative affect, however; there is nothing in that theory that would lead us to predict the exact influence of a certain number of acts in the past on a certain number of acts today or in the future. Moreover, this argument implies that terrorism can never end, that the climate or culture of terrorism cannot be stopped (the deterministic influence of the past). If so, this hypothesis is not only qualitative, it is fixed (constant) and not susceptible to changes in
people or institutions or policies from year to year (another quantitative methodology problem). So, while plausible at first, because of the lagged dependent variable’s typically highly correlated association with the dependent variable, I do not see any strong theoretical connection requiring this independent control variable to be included in the model.

Conflict is a variable that tries to capture the idea that if a state is engaged in interstate (important to note) conflict, it will experience more terrorism. If Country X is engaged in military conflict with Country Y, citizens of Country X will be more driven to engage in terrorism against X or Y (or vice versa). This is unclear to me. Don’t most citizens rally to support their governments when they get involved in foreign affairs, especially violent foreign affairs? Even if they disapprove of their government’s actions, would they really start to attack from within to send a message to the decision-makers?

Perhaps citizens of the country under attack (Country Y in this case) would strike out at Country X, and even in unconventional ways. Would this situation reflect a causal relationship between government type and political violence (the original hypothesis/question)? And why would any of the above named groups resort to terrorist, unconventional violence as opposed to any other type of political violence, particularly given the legalized environment of violence (during a war) in which almost anything goes? If a weak country is trying to defend itself against an aggressive country and has no means to resist directly, and therefore resorts to what we label normally as terrorism, would these acts fit the typical typology of terrorism (state on state violence during ‘war’)? The country is simply fighting back during an interstate conflict between two unequal states. Violence might beget violence, but as I argued with “past incidents,”
 atheoretic correlation does not help us understand; and the complexity of the relationship of this control variable with levels of terrorism is difficult to untangle.

Region dummies are variables created to measure terrorist event rates around the world, relative to the Middle East (the ‘standard’ case). The interesting issue about this set of variables is that if they are statistically significant, we might be forced to conclude that any relationship between the primary variables (government type and terrorism) is spurious, or at least secondary. If region is the driving factor, domestic system type is likely to have a marginal impact. Beyond that, it is mildly interesting to know if some parts of the world experience more terrorism than others. That interest is tempered, however, by the essentialist and over-generalized approach of regional analysis. One cannot help but think of, on the academic side, “clashing civilizations,” (e.g. Huntington 1994) or, on the colloquial side, gross stereotypes (“all Muslims are terrorists”). Are all Europeans, Africans, Asians and Americans really similar enough, respectively, to capture a “type” of people who might engage in more or less terrorism? Also, it is possible that the regions variable is correlated with government capability or regime change or GDP or any of the control variables listed above; this independent variable co-variation is potentially problematic in a typical quantitative analysis. Region might also be a proxy for regime type (are most countries in a region democracies? non-democracies?—also without much variation), which would correlate highly with any measure created to represent the concept of democracy. Simply saying that there is more violence “here” or “there,” is descriptive but unhelpful. The theoretical reasoning behind including region in a causal model needs significant development.
Post-cold war is a variable to measure the effect of the end of the Cold War. It is coded as zero until 1991, then 1. Again, on the face of it, this is an interesting control variable tied to a reasonably well developed theory: the policies and practices of the major players in the Cold War constrained instability and asymmetric violence, and now that the “lid” is off, and the lone Super Power (the USA) cannot re-close the lid or contain the wildfires popping up all around the world, entropy has taken hold. Now, disorder or disintegration or allowing simmering fights to finally rise to the level of physical conflict is NOT the same as saying all of this would lead to extra-normal acts of political violence—the signal sending inherent in terrorism. A quick look at the frequency plot below also calls this hypothesized relationship into question. There were more terrorist events in the late 1980s and early 1990s than in the middle years of the 1990s. The general trend of terrorist events pre-1991 and post-2003 is quite similar. Moreover, narrowing our view to the 1991 to 2011 time period, the distribution of the number of terrorist events looks very much like a “U”—an extremely non-linear relationship between acts and time, with the first half being a negative relationship and the second half being positive. A simple dichotomous variable, with a “positive” value after 1991, does not align with the observable data at all. So, while the “what happens now that the Cold War is over?” hypothesis is intriguing, that macro-systemic conflict process does not seem to have a causal relationship to the reality of terrorist events over time; or, if it does, we need a non-linear, much more complex representation of the relationship.

Much quantitative work on the issue of terrorism has been done in the past ten years (Young and Findley 2011, 411). While the range of questions being asked, from the
influence of political systems or economic globalization to anti-terrorism policies, academics from many disciplines have wrestled with the challenge of building explanatory models of terrorism (e.g. Brooks 2009; Quan and Schaub 2004; Findley and Young 2007). However, there remain fundamental challenges that need to be addressed before we move forward; some of these challenges are: we need more explicit and theoretically grounded explanations for the specific control variables we want to use; we need to better justify why we need to use “controls” at all (and, e.g., why not simply call them explanatory variables?); we need to clarify how the use of these control variables in attempting to explain terrorist events differs from the use of the same variables when predicting other social/political behavior (see Note 8). If we do not resolve the theoretical issues outlined above—particularly the issues of high complexity and potentially both positive and negative effects of the given variables (GDP, income inequality, regime durability, size, government capacity, conflict, regional dummies, post-Cold War, and to a lesser extent, past incident)—we will continue to generate unreliable (and un-replicable) statistical models. If we can’t generate reliable models, we can’t generalize about the hypothesized relationship; we can’t assert probable causation with any level of certainty (therefore, a dominant paradigm could not exist).

It might appear from the discussion above that I do not believe we should control for anything in trying to answer the question of political system influence on terrorism. This conclusion would be incorrect; I believe any control we use must be theoretically grounded, appropriately measured, and carefully coded. Moreover, if political system type has a significant influence on terrorism, we should see that influence whether it is rich or poor or new or old or large or small. If wealth, level of consolidation and
geographic size (for example) limit significantly the impact of political system on terrorism (the whole purpose of using controls), then whether a country is a democracy or not becomes a contingent factor, rather than an important factor on its own. If this is true, then the nature of a political system—all things being equal—could not be the primary, first-order driver of levels of unconventional political violence. If we fail to critically review the basics or our methodological approaches, that is, the applicability of datasets and the theoretical relevance of independent control variables, we will find ourselves encountering more “pitfalls” than “promising” explanatory models (Young and Findley 2011), and the generalizable research on terrorism will not move the field or the policy-making world forward.

**Methodology**

In this analysis I address the methodological problems I have outlined above. I am most interested in exploring the possible association between a nation-state’s fundamental political structure and acts of terrorism. As the review of previous research shows, we are far from having a well-developed theory or set of theories to explain why structure might matter. No one, to my knowledge, has started from the beginning, from the basic approach of first looking for correlation between the concepts/variables. This missing step is central to determining if it is meaningful to move forward into more complex analysis (that is, if the relationship exists in a bivariate setting, it could be weakened or eliminated by adding controls; however, I believe we should test to see if any relationship exists in the first place). I examine terrorism using the START Global Terrorism Database (GTD n.d.). I include data from all nation-states from 1970-2011, including countries that “ceased to exist” and countries that were “created” (database
details below). While data is not available for all countries for every calendar year over the entire period (e.g. newly independent countries; data problems for 1993), the missing data is not problematic given my operationalization of the variables under study. I use the Freedom House index to represent political system type. I use a multi-step approach to re-examine the fundamental ideas about variation in the location of acts of terrorism and variation in acts of terrorism over time. First, I inspect the annual number of events for all states over time; I do this to create a baseline measure against other databases and research projects, as well as to look for outliers in the data. Second, I aggregate terrorist events by Freedom House designations (both the average of the Civil Liberties and Political Rights scores 1-7, and the Free, Partly Free, Not Free averaged scores 1-3) by year, by decade, and by series. Third, I review the detailed distribution of events by the original Freedom House ratings to look for nuances among Partly Free countries. Fourth, I look for outlier categories across terrorism by system type in the aggregate. Is the distribution what we would expect (normal? skewed left? right?).

The quantitative methodological approaches most often used in the analysis of terrorism have been based on the concept of the event count, often, but not always, aggregated at the annual level. This has caused many methodological problems, because acts of terrorism are often few and far between, leaving data sets with lots of zeros. Moreover, the event either happens or it does not, so, having a dichotomous variable on the left hand side of the equation causes further problems. These issues have been addressed by using a variety of models (see the literature mentioned above), but I believe this approach is fundamentally flawed when trying to answer questions about the influence of political structures on acts of terrorism.
Adding together terrorist events is not like adding together dollars or automobile deaths or even years of education. Terrorist attacks are not interval level data. Consider the following scenarios. One: A country with a history of very little political violence, and few if any major terrorist events, is attacked, with much death and destruction resulting. The general population and the government are likely to be shocked, taken by surprise, and to react accordingly. The impact of the attack would be significant and enduring (“the world has changed”). Two: A country with a past history of political conflict, but at “peace” at the present time, suffers regular terrorist events, is attacked multiple times per month, month after month, from missile attacks, to suicide bombings to political assassination. The general population and the government are not likely to be shocked or taken by surprise. Acts of terrorism become routinized; responses to those acts become institutionalized; the daily lives of most of the population are not affected significantly (“the world has not changed”). Three: A country in the midst of political violence, either international or civil or some combination of the two, suffers acts of terrorism as one of many forms of political violence used against it. The general population and the government are not likely to be shocked or taken by surprise. Acts of terrorism and responses to those acts are likely to be folded into the larger political conflict and the government’s attempt to defeat its enemies.

In the foregoing scenarios, one terrorist attack does not carry the same meaning across political and cultural space; therefore, adding terrorist events together does not have the same meaning across political and cultural space. The empirical reality of the acts of terrorism does not match the political and cultural meanings of the acts of terrorism. The concept of terrorism is tied to the political and cultural environment and
our typical operationalization of that concept is to count and sum attacks; however, if the
meaning of the attacks is not adequately captured in the (empirically measurable) attacks
themselves, we have a methodological problem. What looks like a valid measure on the
face of it is actually riven with internal and content validity problems.

Where does this leave us? We have several options. First, we could ignore the
problem and carry on as we have. I reject this approach. Second, we could attempt to
compile an index of terrorism so that events plus their political and cultural impacts and
meanings can be taken into account; that is, adding much needed context to the
assessment of the nature of political violence. This would be the best approach; however,
the approach would require enormous amount of site-specific data (dozens of countries
over decades of years), data for which we don’t readily have access. Third, we could
narrow our approach and focus on country or region, allowing for the in-depth collection
of data. This would limit our ability to make and test cross-cultural and/or international
hypotheses. The in-depth, cultural approach would be much more qualitative, but that
might be where the desire to accurately measure the concepts and generate the data lead
us. Fourth, and the approach I take here, we could re-conceptualize the operationalization
of an act of terrorism to be a qualitative, ordinal level variable, one that we could
aggregate into any number of categories representing the “intensity” of terrorism.

This approach to measuring terrorism captures everything from the single
incident, single day, world-changing event to the minor attacks where no one is killed or
wounded and little or no property damage is done. The Terrorism Intensity Index = (E +
PK + PW)*PD where:

E = the terrorist event (1)
PK = total number of people killed in the event (1…ni)

PW = total number of people wounded in the event (1…ni)

PD = the extent of property damage (1=minor, 2=major, 3=severe)

The variable “Terrorism Intensity Index” can be summed by whatever timeframe is needed. In this paper I will total terrorism intensity by year, by decade, and by the length of the entire series, 1970-2011. Creating this index gives us a sense of the impact of terrorism in a wide variety of cases without having to conduct a detailed historical, conflict-process-based, economic analysis of every site affected by an act of terrorism. It does not under-weigh significant single events, nor does it over-weigh multiple, but less significant, events. It captures the environment of terrorism in a systematic and comparable (ordinal) way, while being fundamentally qualitative. We cannot say that the distance between the Terrorism Intensity Index score for a time period in Country X is exactly some distance from the Terrorism Intensity Index score of a time period in Country Y, but we can say that the intensity of terrorism in Country X is more or less than in Country Y. Terrorism Intensity Index scores are coded into the following values: minimal (MIN), moderate (MOD), severe (SEV), where:

MIN = Terrorism Intensity Index ≤ 10

MOD = 10 < Terrorism Intensity Index ≤ 100

SEV = 100 < Terrorism Intensity Index

I add a new way of thinking about time, democracy (or non-democracy) and acts of terrorism to this new categorical, terrorism intensity, approach. I believe the intensity of terrorism, when looking at the variation between democracies and non-democracies, is best measured at a much longer time scale than monthly, quarterly or even annually. This
is a meaningful and relevant proposal because nation-states do not change from one type of political system to another very frequently, and when they do, the transition to, say, a demonstrably democratic system takes years if not decades. Because the variation on the key explanatory variable is so limited, we are working, in a sense, with a set of near-constant values. Yes, countries change, but not very many at a time and not very often. Lack of variation is another inherent methodological problem when trying to apply econometric analysis to this fundamental relationship between system structure and extreme political violence.

The variables for this analysis are:

TII3  Terrorism Intensity Index, by category (1=MIN, 2=MOD, 3=SEV); each event is calculated; TII index score is then summed as needed, by country, system type, or by year, decade, etc.

FH3  Freedom House Freedom Ratings (1=FREE, 2=PARTLY FREE, 3=NOT FREE), assigned to each country for each year (derived from the original Freedom House ratings (CL + PR / 2 = 1-7, then converted to 1-3)

Data

I use the Global Terrorism Database (GTD), produced under the auspices of the National Consortium for the Study of Terrorism and Responses to Terrorism (START), as a measure of acts of terrorism. According to the START website (About GTD n.d.), the GTD is the most comprehensive open-source database on terrorism events. It includes both domestic and international events. It is important to note that the vast majority (90+%) of terrorist events in the world over the decades are domestic, that is, they only
include actors associated with one nation-state. The GTD database is, for all practical purposes a domestic terrorism database. The number of domestic events, across nearly four decades, overwhelms the bias that might be created by the relatively small number of transnational/international events in any given year.

As outlined in my critique of current practices, previous quantitative research has often used the well-known ITERATE database (Mickolus et al. 2003), a database of transnational/international terrorism events only. These data sets are used even when a scholar is looking at the effect of a political system on the generation of acts of terrorism within a country. This mismatch of data and hypothesis is another fundamental problem that this paper seeks to address. At the time I requested access to the raw data (October 2013), the database covered events from 1970 through the end of 2011 (START plans to update the GTD annually), for all nation-states in existence in a given year. For example, prior to 1990, Germany would have been coded as either West Germany or East Germany, after unification, Germany. The same practice was followed for all newly independent or re-created states during the timeframe under study (GTD Codebook 2012, 12-15). As explained it the GTD Codebook (2012, 3), events from the year 1993 are not included in the database due to lost data. This is not an issue for this research because I am looking at aggregations of events across system types of multi-year periods. Eliminating one year of data for all system types from the forty-year series will not bias assessment of the relationship between structure and violence (if all countries are removed for a year, there is no bias of the number of democracies or non-democracies because they are all removed). The GTD defines acts of terrorism using elements often found in definitions of terrorism used by other database creators: the intentional use of
violence or the threat of violence by sub-state actors, when (and this is a somewhat unique approach to coding) at least two of the following three elements are present—the event takes place outside the context of warfare, there is an attempt to reach a wider audience beyond the immediate victims of the attack, and the individual or group must be seeking to attain a political, religious, economic or social goal (GTD Codebook 2012, 6).

I use a database from the Freedom House as a measure of the level of democracy in any given political system. I am aware of the criticisms of using the Freedom House methodology/data in assessing levels of democracy, in particular, its oversimplification (Inkeles 1991) and its potential political bias (Steiner 2014). However, I do not see those challenges as relevant. First, I am not studying democracy per se; I am looking at the basic system levels (even though Freedom House is not that basic to begin with—see its coding methodology). I am not trying to get at the nuance of just how substantive a democracy might be vs. how procedural—I am trying to look at the fundamentals of the systems: is governing primarily a top-down, imposed type of model, or is it basically interactive, where “the people” have some say in governance. It might be the case that such in-depth nuance is necessary if the null hypothesis between democracy/terrorism is accepted; however, as I argue, first things first.¹¹ I use the average score of the political rights and civil liberties ratings, the country’s Freedom Rating, ranging from 1.0-7.0, where 1.0-2.5 is FREE (1), 3.0-5.0 is PARTLY FREE (2) and 5.5-7.0 is NOT FREE (3) (Freedom House Methodology n.d.) This dataset contains country ratings from 1973-2014. Given this range, the effective range of analysis for this paper is 1973-2011.

Analysis
A review of the following frequency distribution, captured from the GTD website (GTD Data Rivers n.d.) gives us a good reason to question the alternative hypothesis, that is, the hypothesis predicting the statistically significant impact of the role of political structure on the rates of acts of terrorism.

Figure 1

http://www.start.umd.edu/gtd/datarivers/vis/GtdExplorer.swf
Accessed 02/06/14

The longitudinal plot of terrorist incidents is volatile and non-linear. We find a steep positive trend starting in the early 1970s and peaking approximately twenty years later. The steepness of the trend is indicated by the range capturing the annual number of incidents in the world, from approximately 500 incidents in 1971 to ten times as many, approximately 5000, in 1991. Thereafter we see a plunge in the number of incidents; in fewer than ten years, the number of recorded incidents worldwide drops from the peak of 5000 to a high of fewer than 1000 incidents in the late 1990s, leveling to around 1100 incidents through approximately 2003. The trend climbs steeply again from 2003 to the end of the series, ending with a count of approximately 4500 terrorist incidents. Given
this volatility, it should be predicted, on the face of it, that political structure might
account of only a small amount of the variation seen in the rates of terrorism over time;
the numbers and types of democracies and non-democracies simply do not fluctuate in
the ways we see incidents fluctuate.\textsuperscript{12}

Figure 2 is a frequency distribution of the new variable, Terrorism Intensity Index
(Terrorism Intensity Index calculated per event, aggregated per year for comparison with
the raw event data).

Figure 2

\begin{center}
\includegraphics[width=\textwidth]{figure2}
\end{center}

The distribution is similar to the distribution of the raw event count data in Figure
1; this is to be expected and is also a verification of the accuracy of the newly created
variable. The figures should look similar because the intensity variable is based on the
event count, and is meant to amplify the significance of any given event. The trend is
similar, but the impact of events can be seen in the higher values across time, with the
peaks near 6000 instead of 5000 and the mid-1990s lows dip to an average of
approximately 1500 instead of 1000. All in all, most events are of minimal impact, but
there are enough events of moderate or severe impact to change the trend of the amount
of terrorism in the system over time. Now that we have the baseline established and verified, we can move into the analysis of terrorism intensity by system type, and across time.

The first step is to look at the distribution of terrorist intensity by simplified Freedom Rating for the entire series. Figure 3 is that frequency distribution.

Figure 3

<table>
<thead>
<tr>
<th>All Terrorist Events 1970-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free</td>
</tr>
<tr>
<td>Partly-Free</td>
</tr>
<tr>
<td>Not Free</td>
</tr>
</tbody>
</table>

The modal value is Partly Free (40%), followed by Free (36%) and Not Free (24%). This initial distribution leads us to neither accept nor reject either null hypothesis about the relationship between system structure and levels of terrorism. Countries in the Free category encounter terrorism significantly more often than countries in the Not Free category; however, given the fact that most cases fall in the mixed category, the answer to the question is more complicated. A closer look at the rates of terrorism, categorized by the original Freedom Rating averages for each country type, with values from 1-7,
provides more insight into the space within which those choosing to engage in acts of terrorism find opportunity (Table 1 and Figure 4):

Table 1

<table>
<thead>
<tr>
<th>Freedom Rating</th>
<th>Frequency of Terrorism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>5%</td>
</tr>
<tr>
<td>1.5</td>
<td>6%</td>
</tr>
<tr>
<td>2.0</td>
<td>4%</td>
</tr>
<tr>
<td><strong>2.5</strong></td>
<td><strong>19%</strong></td>
</tr>
<tr>
<td>3.0</td>
<td>9%</td>
</tr>
<tr>
<td>3.5</td>
<td>8%</td>
</tr>
<tr>
<td>4.0</td>
<td>8%</td>
</tr>
<tr>
<td>4.5</td>
<td>9%</td>
</tr>
<tr>
<td>5.0</td>
<td>6%</td>
</tr>
<tr>
<td><strong>5.5</strong></td>
<td><strong>13%</strong></td>
</tr>
<tr>
<td>6.0</td>
<td>9%</td>
</tr>
<tr>
<td>6.5</td>
<td>1%</td>
</tr>
<tr>
<td>7.0</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure 4

I have highlighted the areas (in bold) at the breaking points between Free and Partly Free, and Partly Free and Not Free. Of the thirteen categories in the range of the 1-7 Freedom Rating, 50% of the incidents of terrorism happen at these two transition junctures. These findings indicate that the political system itself might be less important than the purity of the system. Democracies give fewer incentives and much opportunity; authoritarian regimes give many incentives but little opportunity. Balancing democratic and authoritarian elements might give the most incentive to groups to act in unconventional ways and the most opportunity to do so. This situation is not equivalent to the
transitions/consolidation factors outlined by Eubank and Weinberg and Eyerman (cited above). A Freedom Rating is not the same as being a “new” democracy or a “consolidated” democracy, nor is the country necessarily undergoing “transition.” A country could be on the “cusp” of being more democratic (authoritarian) or less democratic (authoritarian) for any length of time. I see the mix of democratic and authoritarian tendencies as more important than the “flux” in a given system.

A more detailed look at terrorism intensity over time complicates the answer even further. The table below shows the amount of terrorism in each country type by decade. As I argued above, there is no theoretical reason to think that system type will fluctuate dramatically over a short period of time; nor is there a strong theoretical reason to aggregate terrorism on an annual basis. These are conventions, and they are not to be rejected lightly. I am not rejecting those approaches, but offering a new approach. If we hypothesize, for example, that as a country moves from Not Free to Free, the country will encounter more (or less) terrorism, we must consider the timeframe within which both the formal, procedural changes would take place, as well as the more substantive, cultural non-democratic to democratic changes. If Country X moves from a Freedom Rating 3 to Freedom Rating 1 from 1980 to 1981, it would not be expected that government policies and procedures would change overnight, that government accountability and responsiveness to the citizenry would change so quickly, nor that political groups, particularly those outside of power, would automatically adopt a compromise-negotiation-solve problems without the use of force set of attitudes. Both institutional change and political cultural adaptation take time, and by all accounts, that amount of time is more than one year. The behavioral variation the model the model is attempting to
capture would not match the numerical variation in the operationalized variable. This mismatch is problematic. I suggest a ten-year time frame to allow for meaningful institutional and political cultural change. Obviously, this is subject to debate, but it is a step in the right direction away from thinking in terms of annual variation.

Table 2

<table>
<thead>
<tr>
<th>DECADE</th>
<th>FR1</th>
<th>FR2</th>
<th>FR3</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-1984</td>
<td>51%</td>
<td>33%</td>
<td>16%</td>
<td>21,329</td>
<td>(20.4% of total)</td>
</tr>
<tr>
<td>1985-1995</td>
<td>35%</td>
<td>49%</td>
<td>16%</td>
<td>37,205</td>
<td>(35.5% of total)</td>
</tr>
<tr>
<td>1996-2005</td>
<td>27%</td>
<td>44%</td>
<td>29%</td>
<td>18,081</td>
<td>(17.2% of total)</td>
</tr>
</tbody>
</table>

Figure 5

Table 2 and Figure 5 show a decided shift in the distribution of terrorism over time. Countries in the Free category encountered terrorist events close to one-half the rate in the late-1990s to the mid-2000s compared to the rate they encountered in the mid-
1970s to mid-1980s. On the other hand, rates for Partly Free and Not Free countries increased, approximately 33% and nearly 100% respectively. These two “book-end” decades are important, because they represent the growing rates of terrorism in both the first and second “peak periods” (see Figure 1). Given this longitudinal data, one could argue that democracies were more likely to encounter terrorism during the middle of the Cold War period and less likely to encounter terrorism in the post-Cold War period (not that the Cold war is the causal variable—it is simply a convenient historical marker). This conclusion would accept the null, and reject the hypothesis that political system structure has a significant, long-term affect on terrorism.

The results of this back-to-basics approach to test the hypothesis that political system type influences the level of terrorism lead me to conclude that the democratic or non-democratic nature of a country’s political system does not significantly, consistently, impact unconventional political behavior. Levels of terrorism have fluctuated significantly over time, with far more volatility than concomitant changes in political structures. Democracies faced more terrorism decades ago, but non-democracies face more now. Regimes straddling the democracy/non-democracy fence encounter the most terrorism intensity.

Where do we go from here? We need to keep reflecting on the operationalization of the most important concepts under study, think critically about theoretical relationships between variables, and apply appropriate datasets with care. Given the fact that twenty-seven countries (and geographic regions like the West Bank and Northern Ireland) account for 85% of the incidents of terrorism from 1970-2011, and given that those incidents are restricted, in general, to limited periods of time, a more contextual approach
might be the most appropriate to understanding terrorism. This is not to say we must avoid quantitative analysis, or only focus on one case at a time. We should find a middle ground—use aggregate data to help us identify key areas of the world, across time, where most unconventional political violence is taking place, and then build more contextually driven comparative multivariate models (most similar systems or most different systems, or some mix). A multi-case comparative approach might provide the middle ground we are looking for, where available data and appropriate methodology meet. However we move forward, the weaknesses of past analyses, along with the empirically demonstrated volatility in terrorist intensity over time and space, should give us, and our desires to make global generalizations about terrorism, pause.
BIBLIOGRAPHY


Global Terrorism Database. 2014. GTD Data Rivers.


ENDNOTES

1 The author would like to thank JPPP Executive Editor Arlene Dallalifar and the anonymous JPPP reviewers for their helpful comments and suggestions. A previous version of this paper, under the title “A Quantitative Analysis of the Historical and Systemic Determinants of Terrorism,” was presented at the Annual Meeting of the Midwest Political Science Association in April 2014.

2 There is no common or universally accepted definition of terrorism; the typical elements of a definition used in most literature on the subject are: the use or threat of the use of (extra-normal) violence (by sub-state actors) for political objectives, where force is used against a target not only to affect the target but to intimidate a larger audience. Definitions change slightly among scholars of this type of violence, but in the quantitative literature, there is more uniformity because the definitions are driven by the concepts used in gathering the data. In a sense, the raw data gatherers drive the definitions used in the theoretical work.

There are deeper issues with the definition. Because it has become so politicized (e.g. freedom fighter v. terrorist), and because the term is used so often and applied to just about any kind of violence we don’t like, it is clear that we, as scholars, as well as politicians and pundits, do not have a clear understanding of how terrorism is different from other forms of political violence (war, insurgency, resistance, anarchy, etc.). This is both a theoretical problem (how do we study what we can’t identify universally?) and methodologically, because it shapes the kinds of data that is collected.

3 The latest literature on the topic of terrorism includes analyses and reports on state and local responses, and preparedness to respond to, crises/emergencies like those faced in Boston, MA in 2013. These types of analyses fall outside the focus of this paper, but provide insight in to the technocratic, bureaucratic, and local-capacity issues related to the more often discussed theoretical, political and ideological perspectives on terrorism and extremist violence. For a recent example, see Leonard et al. 2014.

4 Young and Findley’s main points can be summarized as these: we still have definitional problems with the term ‘terrorism;’ we do not treat domestic and international terrorism separately, as might be theoretically justified; and the unit of analysis under study is questionable and needs more explanation/justification (e.g., use events by year by country, or events by strategic dyads of interactions, etc.).

5 Acts of transnational terrorism are acts that include actors or sites from more than one nation-state. For example, a group could attack a site in another country (different from its home country). A group could attack within its home country, but attack citizens from other countries. An attack could take place in international waters, or on international flights, etc. Some facet of multi-nationalism must be present for an act to be considered transnational. Suicide attacks are self-explanatory. “Exporting” terrorism is a reference to
actions or policies that would promote terrorism in a transnational context, “creating” terrorism/terrorists and “sending” them out to act around the world, for example.

6 More recent analyses by Piazza (2007, 2008(a), 2008(b)) test variations on the democracy/terrorism theme, but are limited by region (Middle East, 2007) and by type of terrorism (suicide attacks, 2008(a)) and the specific impact of an economic system (2008(b)).

7 If the logic of this argument holds, it would add more evidence to the theoretical position that non-democratic political environments are more likely to generate acts of terrorism than are democratic political environments.

8 Perhaps even more interesting is the tie between these types of control/explanatory variables in the terrorism literature with similar types of explanatory variables used in the social movement literature. Representative examples from the sociology literature might include: relative deprivation (Davies 1962), resource mobilization (McCarthy and Zald 1977) and political opportunity (McAdam 1982). There are two things to note: first, political scientists rarely cite examples of where variables or explanations have been used in other disciplines (none of the terrorism articles I reviewed had any reference to non-political science sources for variable inclusion in models); second, by using variables so closely associated with other political behavior, political scientists are essentially claiming that terrorism is just another form or extension of, for example, social movements, rather than something fundamentally different. This points back to our problems with definitions, and the fuzziness of our theoretical understanding of the supplemental variables needed to push an actor to engage in terrorism (as opposed to, for example, civil disobedience).

9 It could be argued, for example, that the experience of the United States is one of an outlier. No other act of terrorism in the 20th century history of terrorism (as defined herein) comes close to have claimed the lives of thousands and the property damage of tens of billions. The United States is also an outlier on the variable measuring degree of freedom (democracy) because it has been and continues to be one of the top powers (historically phrased “Superpower”) in the international system, which creates for it a very different kind of political environment than the democratic environments found in most other democracies. The combination of its power status and the severity of the events of September 11, 2001, skew terrorism data significantly. The fact that the total number of people killed by acts of terrorism, for all countries minus the U.S. from 1973-2011, might not even reach the number killed that one day in history, demonstrates just how much “pull” the U.S. case has on any global, quantitative analysis of terrorism.

10 Due to the fact that for many events no property damage was recorded (i.e., blanks cells in the dataset or numbers representing “unknown”), a multiplier problem arose. If left unchanged, the (E+PK+PW) would end up being multiplied by zero, which would create a Terrorism Intensity Index of zero for that event. To avoid this problem, the multiplier used was (1+PD). If the event had no property damage, the multiple would be
1, saving the event, and not inflating it in any way. However, TII values are higher than they would be using (1, 2, 3 as the PD value) because the real multiples for any event with PD end up being (2, 3, 4). This absolute value has no inherent meaning, so it does not bias the scores in any way (they are all treated the same way)—the scores are still ordinal, and the raw TII is recoded as (1, 2, 3), so unusually high scores are normalized.

11 As for bias, whether a country is more likely to be coded as Free given its relative status vis-à-vis the United States, I see no theoretical connection to that and the violence itself. Let’s argue, for example, that it is difficult to be labeled a Free country; that would put more countries in the Not Free or Partly Free categories (if we reduce to the Freedom House rankings of 1-3). This situation could act as a particularly rigorous test of the democracy/terrorism hypothesis. If there are fewer Free countries, and most terrorism is driven by democracies, then the relationship should be clear and obvious. If the number of states per category is the primary driver of terrorism event counts, then the type of system, per se, might have less to do with the amount of terrorism in the system. Perhaps, on the other hand, if it were “easier” to list countries as Free, there would be more countries in the Free category, and if they were more democratic and we do see more terrorism in those “newly” coded countries, then there would be a bias against the primary causal relationship that really is present. Steiner argues this was a more significant coding problem prior to the end of the Cold War, and less so since. It is also interesting to note that one would expect countries that are allies of the United States to be more democratic, because the U.S. has tended to be allied (formally) with states similar to itself (including those it made in its own image after WWII). Whatever the case for pre-existing conditions, the nuance, and, again, given the rougher, first-cut approach I am taking, I find this coding challenge to be less relevant. Lastly, authors such as Li (cited above), have run analyses with a variety of measures of “democracy” and have not found significant differences between the data sets; the nuanced differences in the alternative measures of democracy are simply very highly correlated.

12 A second noticeable trend is the change in “colors” across time. Even a cursory review shows that the dominant colors, or countries, changes from the first full bell-curve in the 1970s and 1980s and the first part of the second bell-curve in the early 2000s: the largest number of events were taking place in South America during the early surge; the largest number of events in the second surge were taking place in Africa, Southwest Asia and Southeast Asia. Recognizing this might lead us to believe that political systems under stress might lead to more of all types of violence than systems not under stress, regardless of their official status as democratic or non-democratic.

13 Some have argued that while the number of incidents might be declining, the intensity of the attacks is increasing. While this is true in general, it is not true for countries rated as Free. From 1975-1984 and from 1985-1995, 1% of all terrorist events were coded with an intensity rating of 3; in 1996-2005, that percentage rose to 2.4. However, the percentage of terrorist events coded as intensity level 3 for countries labeled Free in those same decades did not follow suit, or even change significantly: 1975-1984 22%, 1985-
1995 20%, 1996-2005 20%).

14 Also important to note: the last decade, as measured with this dataset and as set forth in this analysis, has the fewest number of incidents, or total amount of terrorism, of the three decades captured.

15 I came to these numbers by looking at the total number of events across the dataset, by geographic area (state or territory) and selected those areas that had encountered at least 1000 terrorist events over the forty-year period. Given that these two dozen territories account for between 8 and 9 events out of every ten in the dataset, one might argue that the countries facing terrorism, are, in general, outliers. Most countries rarely, if ever, have to deal with the problem directly.