

Targeting Terrorism: Tracking Attributes for Intervention

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Abstract:

2015 was plagued with nearly 15,000 terrorist attacks worldwide, with a casualty total in excess of 80,000 (38,430 killed and 43,521 wounded). Almost 17,000 attacks were reported in 2014, with nearly 85,000 casualties (killed 43,527 and 40,893 wounded) (National Consortium for the Study of Terrorism and Responses to Terrorism). While specific data on terrorist organizations can be scarce and difficult to obtain, data on their attacks are well documented. This research evaluates the correlations between Group-Attribute data and the success of terrorist campaigns as defined by the amount of attacks carried out and the number of casualties inflicted in each group-year. An assessment of the pattern of correlated Success-Characteristics combined with extremist organization group traits can potentially determine which groups are the most likely to inflict the greatest amount of harm and physical destruction. This understanding of utilizing terrorist-success-indicators to predict future extremist group problem areas will allow for more effective and efficient deployment of limited counter-terrorism resources.

The Problem

Since 2001 the United States has led what is known as the “Global War on Terrorism.” The battleground in this war has stretched across six continents and dozens of countries. Thousands of lives and trillions of dollars have been spent on the global counter-terrorism effort, yet hot spots still regularly flare up and often catch governments unprepared to respond. The massive scope of the problem has turned the Global War on Terror into a worldwide game of extremist whack-a-mole, with governments shifting their attention from one problem area to the next. The inability to anticipate a violent extremist groups’ increasing strength produces a reactionary methodology for counter-terrorism operations, rather than an interventionist strategy.

Terrorism literature overwhelmingly focuses on the social and psychological reasons for groups turning towards terrorism, the impact and cost of terrorist campaigns, the termination of these groups, and the violence they inflict. While the previous work addresses important concerns in countering extremist violence, little work has been done on identifying the conditions that allow for a small, marginalized extremist group to gain the resources and momentum necessary to carry out an extensive and costly campaign against the opposition government and its people. This research seeks to recognize and assess those conditions for success. Success in this context is used as a measure of a group’s ability to conduct attacks and inflict suffering, rather than in terms of survival or achieving the group’s objectives.

These indicators of extremist group success will allow governments to shift from reactionary to interventionist counter-terrorism approaches, cutting off the momentum for a rising violent extremist group before they develop the capacity to inflict significant harm. If governments are able to accurately assess which groups are likely to gain enough resources and constituent support for sustaining long-term operations, as well as inflicting significant damage

with heavy casualties, they would be able to engage these groups earlier. This earlier engagement would result in stopping a terrorist group before they have the capacity to wage a large-scale campaign against their government and its people.

This predictive undertaking is obviously much easier said than done. While specific data on terrorist organizations can be scarce and difficult to obtain, data on their attacks are well documented. This research evaluates the correlations between Group-Attribute data and the success of terrorist campaigns as defined by the amount of attacks carried out and the number of casualties inflicted in each group-year. An assessment of the pattern of correlated Success-Characteristics combined with extremist organization group traits can potentially determine which groups are the most likely to inflict the greatest amount of harm. This understanding of utilizing Terrorist-Success-Indicators to predict future extremist group problem areas will allow for more effective and efficient deployment of limited counter-terrorism resources.

The question remains: Can attributes of extremist organizations, their potential constituents, the opposing government, and the physical characteristics of the territory be used to predict the capability of terrorist organizations to carry out violent campaigns? Based on the initial findings, attributes such as constituent support, territory control, and the military strength of opposing government can indicate the conditions that will allow for the rapid growth of an extremist group, while characteristics such as state sponsorship may have a constraining factor that would limit potential growth. If this theory holds true, the findings may allow for substantial improvements to counter-terrorism strategies based on predicting the next hot spot for violent extremism before it significantly heats up and inflicts serious damage and loss of life.

While a majority of the focus on counter-terrorism has revolved around the formation and termination of violent extremist groups, many components of the research and its findings

support the understanding of what impacts a terrorist organization's ability to carry out attacks and inflict casualties. The work at hand is to piece together these components and fill in the gaps.

Gary Lafree, the director of the National Consortium for the study of Terrorism and Responses to Terrorism (START), and his co-authors of "Cross-National Patterns of Terrorism: Comparing Trajectories for Total, Attributed and Fatal Attacks, 1970-2006" acknowledge the shortfall of understanding terrorist attack patterns, "Despite growing international concern about terrorism, until recently, very little was known about worldwide risk patterns for terrorist attacks (Lafree, Morris, and Dugan 2010, 622)." Their analysis identified the concentration of attacks, thirty-eight percent of all terrorist attacks took place in ten countries with over seventy-five percent contained within thirty-two countries. They also identified specific regions with an increasing occurrence of extremist violence. Lafree, Morris, and Dugan highlight the latent factors that affect the ability of terrorists to inflict violence. The common factors within the high extremist violence countries and the commonalities with those regions seeing an increase in terrorist attacks serve as the starting point to identify the success-characteristics for extremist violence.

Previously, the assessed factors that contribute to extremist violence has been mostly contained within political and economic explanations. In "The Causes of Terrorism" Marth Crenshaw explains, "Terrorist violence communicates a political message; its ends go beyond damaging an enemy's material resources. The victims or objects of terrorist attacks have little intrinsic value to the terrorist group but represent a larger human audience whose reaction the terrorists seek Crenshaw 1981, 379)." Despite the accuracy of political objectives, the victims of terrorist attacks likely carry significant importance to the attackers. The casualties may represent the population they seek to harm, or their potential constituents that the groups hope to mobilize through an overly repressive government response (Condra 2012, Carter 2016). Li (2005) found

a link between regime type and transnational terrorism incidents. More inclusive government systems allow for the grievances of groups to be addressed. Marginalized groups lacking institutional means pursue the achievement of their objectives may be left to adopt more extreme methods to do so.

Blomberg, Hess, and Weerapan (2004) examines the economic aspects of terrorist violence. Their findings suggest links between economically unsuccessful groups and terrorist activities. They find that an economic decrease can produce an extremist increase. However, their findings do not account for specific motivations of the group members. Poverty may be a necessary, but not sufficient condition for violence. Extremist mobilization requires a sense of being wronged, one group harming, or failing to protect another. This context provides a mechanism for economic mobilization of extremist groups. Abadie (2006) also challenges Blomberg, Hess, and Weerapan's theory, "Because terrorism is a manifestation of political conflict, these results seem to indicate that poverty and adverse economic conditions may play an important role explaining terrorism. Recent empirical studies, however, have challenged the view that poverty creates terrorism (Abadie 2006, 51)." Rather than economic causation, Abadie suggests that controlling for factors like geography and the terrain of the state, reduces the ability to explain extremist violence through economic means. The partial explanations of extremist group development and growth require a more holistic approach incorporating a range of causal factors to more accurately understand the problem, and potential solutions.

Group-Attributes and Success-Characteristics

Constituent Support

A terrorist organization does not originate out of nothingness. Traditionally, they are derived from legitimate political and social movements that enjoy some extent of popular

support, and therefore act in the interest of the movement's potential membership (Ross and Gurr 1989). In "Janus-Faced: Rebel Groups and Human Rights Responsibility," Hyeran Jo and Joshua Alley propose that an extremist group that has revolutionary or successional goals is motivated to win over their constituents in order to legitimize the group's cause, as well as their potential future governing position. These groups often achieve this by providing protection or fulfilling needs not taken care of by the opposing government. While the extremists' actions may not be approved by those they claim to represent, their success benefits those individuals. This creates a pool of potential constituents that at least indirectly supports the cause, if not directly supporting it through funding, supplying needed resources, offering intelligence, or picking up arms and joining the fight.

As terrorist organizations carry out their attacks, it becomes apparent to the population that the government is unable or unwilling to provide the necessary protection, and many people may seek to gain this essential protection from the very groups that are executing the attacks (Thomas 2014). In addition, terrorist organizations may be able to produce an aggressive retaliatory response from the government, a response that produces civilian casualties and then serves to undermine the government's legitimacy (Condra 2012, Carter 2016). As a result, the government's repressive response potentially increases the status of the extremist group with the local population, while demonstrating the government's inability to protect its citizens (Acosta 2014). This necessity for security further increases the support, legitimacy, and capability of the extremist group. Support from the constituency of an extremist organization is of critical importance to the group's longevity and success (Jones and Libicki 2008). Tokdemir and Akcinaroglu (2016) suggest that the strategic consideration of extremist groups exceeds their

attacks and the government response, stating that coordinated actions are purposefully done with the aims to “win over,” or force, the support of their intended constituency.

This essential support from an extremist group’s constituents is a critical source of resources, funding, and members. Tokdemir and Akcinaroglu (2016) suggest that, “groups categorized as terrorists employ different strategies, some of which are negative and some positive to obtain and sustain recruitment, material resources, and the publicity they desire (268).” Resources such as weapons and funding may be available through other sources such as criminal networks and state sponsorship, but an extremist group’s membership, especially those willing to fight and die for the cause, are sourced nearly exclusively from their constituency. In addition, failing to gain support increases the likelihood that the people will be willing to share information about the group operations with government forces. Without adequate support, operational success and survival are severely limited. By gaining the necessary support, extremist groups are able to sustain operations over a longer period and are able to carry out more attacks with greater sophistication.

H₁: Higher constituent support will lead to an increased number of both attacks and casualties from extremist groups.

State Sponsorship

As discussed previously, a ready supply of resources and recruits are essential to a sustained campaign against a government. When describing the aspects that impact of the longevity of a violent extremist movement, Dipak Gupta suggests in *Growth of a Movement: Accounting for Rapid Escalation of Violence. In Understanding Terrorism and Political Violence*, “Groups that do not have a well-thought-out plan for raising money would eventually be wiped out. The groups that begin offering services are usually supported externally (Gupta

2008, 125).” While much of these essential components for a terrorist organization are acquired through the group’s constituents, the supporters of the movement can also often include foreign governments. Gupta further explains, “Waging war against an organized government requires a lot of resources. A group gets a huge boost when they develop a steady source of money and weapons. This support can come through a number of legal and illegal means, including support from another government (Gupta 2008, 145).” State sponsorship for revolutionary or disruptive forces from the United States and the Soviet Union was commonplace during the Cold War. Even now, states interfere with one another through proxy groups, many of which are violent extremist organizations. State sponsorship for extremist groups provides access to resources, training, and intelligence. Gaining foreign state backing seems to enable an extremist organization to gather the means of conducting more attacks and inflicting greater casualties. However, Asal and Rethemyer (2008) suggests that state sponsorship may actually be a constraining force. Rather than enabling extremist groups to carry out more attacks and inflict more casualties, the resources and funding may come with strings attached that limit the actions of extremist groups.

H₂: State sponsorship will result in a greater number of attacks and casualties from an extremist organization.

Territory Control

In *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia*, James Scott explains how challenging terrains, such as hills, mountains, and dense jungles, limits a government’s ability of to impose its control over those areas. As this suggests, control of territory, especially remote and difficult to access territory, allows an extremist organization to operate with less, if any, government intervention. This freedom of operation creates the ability

for these groups to produce resources, conduct more training, and minimizes the access of gathering intelligence on the group by government forces (Asal and Rethemyer 2008). The theory of geography and terrain as contributing factors to extremist violence found in Abadie (2006) can find its causal mechanism in Scott's work.

H₃: The presence of territory controlled by an extremist group will lead to a higher number of attacks and casualties from that group.

Military Strength of the Opposing Government: Counter-Terrorism Campaigns

In their work "On the Duration and Sustainability of Transnational Terrorist Organizations" Bloomberg, Engle, and Sawyer assess the factors supporting extremist group longevity. When discussing their findings on the contribution of political, social, economic, and regional effects of the survivability of an extremist group, they add caveat, "these factors do not significantly affect the direction of duration dependence. We interpret this to mean that there may be other factors, such as counterterrorist measures, that may better decrease the durability of terrorist organizations (Blomberg, Engel, and Sawyer 2010, 303)." Carter (2016) suggest that a state with a high capacity to respond to terrorist attacks will, in an of itself, serve a deterrent for extremist groups, and as such will reduce acts of extremist violence. Jones and Libicky (2008) assess the methods that bring a terrorist campaign to its end. They find the primary cause of terrorist campaign termination was policing. Along with military force, policing was credited with terminating a terrorist organization's violence in nearly fifty percent of the cases. In support of this observation, Posen (2002) states, "Offensive action and offensive military capabilities are necessary components of a successful counter-terror strategy (2002, 47)." While they can be successful, counter-terrorism campaigns require substantial resources for sustained manpower-

intensive operations. Governments with the resources to field more counter-terrorism forces are more capable of carrying out successful campaigns against extremist organizations.

In Audrey Kurth Cronin's 2009 book, *How Terrorism Ends: Understanding the Decline and Demise of Terrorist Campaigns*, she assesses the circumstances that lead to the termination of violence by terrorist groups, suggesting six distinct categories for the end of extremist groups: Decapitation, negotiations, success, failure, repression, and reorientation. While Jones and Libicki (2008) take a similar approach to this common theme, they highlight the complexity that is the source of the real counter-terrorism problem, "The ending of most terrorist groups requires a range of policy instruments, such as careful police and intelligence work, military force, political negotiations, and economic sanctions. Yet policy-makers need to understand where to prioritize their efforts with limited resources and attention (Jones and Libicki 2008, xiii)." Counter-terrorism campaigns are enormously complex, and the dismantling of a terrorist organization requires more focus and resources than can be reasonably employed and sustained in a global effort unless these counter-terrorism resources can be employed efficiently and effectively.

H4: A higher rate of military personnel per capita will lead to a reduced number of attacks and casualties from extremist groups.

Population Support for the Opposing Government

Without the support of the local population, the ability to hide from counter-terrorism forces, recruit new membership, and finance and supply attacks is nearly impossible for any extremist organization (Jones and Libicki 2008). On the other hand, government support by the population enables counter-terrorism forces to better carry out their operations. More people supporting government operations will increase the probability that someone will encounter and

report extremist group activities. In addition, this behavior will reduce the potential for extremist groups to receive reports on the activity of government forces. Claudia Alvares and Peter Dahlgren add another component to this in “Populism, Extremism, and Media: Mapping an Uncertain Terrain.” They assert that, “social dilemmas are used to fuel politics where the ‘us’ xenophobically takes on nationalistic, ethnic, racial overtones against a ‘them’, constructed and perceived as a threat (Alvares and Dahlgren 2016, 47).” In places where the points of tension fall along ethnic or religious lines, the opposition of one group against another is inherently strengthened. This aspect intensifies the effect of both constituent support and population support in terms of success-characteristics.

H₅: Higher population support for the government lowers attacks and casualties from extremist groups

Measuring Attributes

Data:

The Group-Attribute data was collected from several sources. A majority of the data is sourced from the Reputation of Terror Group Database, the Global Terrorism Database, and the Political Terror Scale. The unit of analysis for this research is Group-Year, and the compiled database includes all groups which carried out at least five violent attacks from 1980 to 2011. The included groups and assessed time span is a result of the overlapping sources and time periods for the source data, and not based on any special significance. It is worth noting that the data spans across both 1991, the end of the Cold War and the subsequent reduction in state-sponsored terrorism, and 2001, which initiated the Global War on Terror led by the United States. The greatest limit to this analysis has been the access to data that properly operationalizes

the potential Success-Characteristics of interest. This data limitation truncated the original models and hypotheses that were the point of departure for this research.

Sources:

The starting point for data collection was the Reputation of Terror Groups (RTG) dataset. This dataset includes all 443 terror groups which carried out at least five attacks during the 1980-2011 time period, resulting in a total of 2,641 observations. This was the primary limitation for the data timeframe and observed groups. As the name indicates the RTG Database includes reputation data for violent extremist groups, which is broke down into two components used in this analysis, positive constituency reputation and negative constituency reputation. Positive constituency reputation incorporates actions by extremist groups that traditionally lead to greater support from their targeted constituency. The positive reputation is scored on a scale of 0-3 by assessing the public outreach of the group. This incorporates whether or not an extremist group provides public goods: Education, health services, communication services, security services, if the group has a political wing, and if the group has a media outreach capability. Negative constituency reputation is again scored on a scale of 0-3. It includes factors that will likely turn the targeted constituency away from the desire to support the extremist group: Forced funding, forced recruitment, and child soldier recruitment. The RTG Database also provided information on state sponsorship, territory control, and both population and military size.

The Global Terrorism Database (GTD) includes information on terrorist attacks from 1970 to 2015, including more than 150,000 events. Incident information includes the date, location, weapons used, nature of the target, number of casualties, and the group or individuals responsible. The GTD provided the baseline for data collected into the RTG database, and often

used as a benchmark for extremist organizations and attacks to include the label of terrorism. Attack and casualty data is the primary information sourced from the GTD.

The Political Terror Scale (PTS) is a measure of repression and rights violations per each Country-Year. The PTS scale ranges from 1 to 5 with five being designated as the worst repression, and as such most beneficial to a terrorist campaign, as high levels of repression undermine support for the government. The PTS is a complex operationalization of the government support variable. While it is possible that a highly repressive government may see fewer occurrences of terrorist violence, their tactics also create the conditions for more marginalized groups to desire to oppose the government, especially through violent means since institutional processes are less available. Nevertheless, the repressive actions by states scoring high on the PTS will likely reduce the willingness for citizens to engage with the government, which withholds an essential source of counter-terrorism intelligence. As a result, the PTS should serve as an acceptable indicator of population support for the government in this context. For clarity of data results, the inverse of the PTS score is used, so that lower levels of repression, and the subsequently higher population support is found at the higher end of the scale.

Variables:

The models consist of eight variables. There are six independent variables: Positive Constituent Support, Negative Constituent Support, State Sponsorship, Territory Control, Opposing Government Military Strength, and Opposing Government Population Support. For the dependent variables, two are used Attacks and Casualties, one for each model. Table 1 below lists variables, designations, descriptions, and database sources.

Both *Attacks* and *Casualties* are direct measurements pulled from the Global Terrorism Database, which are totaled for each group-year. *Attacks* serve as the dependent variable for

Model 1, and provide an indication of the ability for an extremist group to carry out attacks per each group-year. *Casualties* are the dependent variable for Model 2, and represent the level of sophistication of attacks carried out by groups for each group-year.

Table 1: Variables

Variable	Designation	Description
Attacks	y_1 : Model 1 DV	Numerical count of attacks for each Group-Year. Source: Global Terrorism Database
Casualties	y_2 : Model 2 DV	Numerical count of casualties for each Group-Year. Source: Global Terrorism Database
Positive Constituent Support	x_1 : Independent Variable	Positive Internal Reputation Total Source: Reputation of Terror Groups Database
Negative Constituent Support	x_2 : Independent Variable	Negative Internal Reputation Total Source: Reputation of Terror Groups Database
State Sponsorship	x_3 : Independent Variable	Dummy variable equal to 1 for groups that receive support from a foreign government. Source: Reputation of Terror Groups Database
Territory Control	x_4 : Independent Variable	Dummy variable equal to 1 for groups that have control of territory. Source: Reputation of Terror Groups Database
Opposing Government Military Strength	x_5 : Independent Variable	Military Personnel per Capita Source: Reputation of Terror Groups Database
Opposing Government Population Support	x_6 : Independent Variable	Measure of population support for the government that is in opposition to each terrorist group, Inverse PTS score. Source: Political Terror Scale

Constituent Support is the measure of support for each extremist organization from the population the group seeks to represent. The level of support is measured directly through the Reputation of Terror Groups Database, which assigns a numerical count (ranging from 0 to 3) for specified actions by terrorist groups that produce a positive or negative impact on how the group

is viewed by its intended constituency. Originally the models used the Net Reputation for each group-year rather than separating the positive and negative components. However, the use of Net Reputation masked the success of coercive tactics.

The Positive Internal Reputation total consists of public goods provisions, a media outlet capability, and the presence of a political party. “Public Goods Provision,” which is providing public goods such as education, food, and security to their constituents. “Media Outlet” includes media outreach which enables groups to shape public perception of the group and spread pro-group or anti-government propaganda. “Political Party” is the presence of a political wing of the extremist group that produces a sense of legitimacy and permits grassroots efforts to spread their message and ideology. The Negative Internal Reputation total consists of forced recruitment, child recruitment, and forced funding. “Forced Recruitment” is defined as the abduction and threats or use of force for the conscription of adults. “Child Recruitment” includes the coercive recruitment tactics aimed specifically at children. “Forced Funding” involves coercive extraction of resources and monetary goods in order to fund the extremist group’s operations.

The following two dummy variables are sourced from the RTG Database. The variable State Sponsorship is a dummy variable that represents if groups received support from a foreign government for each group-year. It is coded as 1 when a group receives support, and coded as 0 when there is no foreign government backing. Territory Control is also a dummy variable. It represents whether a group has legal or de facto control of territory for each group-year and is coded as 1 for groups controlling territory and 0 for groups that do not have any territorial control.

Opposing Government Military Strength is measured by the number of military personnel per capita, and represents the ability for the government targeted by an extremist group to

implement controls and to conduct counter-terrorism operations. Data on both population size and the size of a government's military is included in the Reputation of Terror Group database. Opposing Government Population Support represents the likelihood that the local population will support the government in opposing an extremist group. The support is measured by using the Political Terror Scale (PTS) value for each country-year. The PTS scores each country-year by the level of repressive action by a government against its citizens. The scale ranges from 1 to 5, with 1 indicating a safe and secure society with little government oppression and 5 suggesting the entire population is subjected to persecution at the direction of the government. In this research uses the inverse of the PTS score, which creates an increase in population support for the government at higher scores.

Models:

The original model for analysis was constructed while attempting to combine both attacks and casualties into one model. The attempts to model a single dependent variable resulted in losing beneficial analytical information, and, as a result, a multi-model system was created to capture the implications of each dependent variable. The attack-model demonstrates the attributes that indicate a group has the ability, resources and personnel, to carry out attacks. Alternatively, the casualties-model denotes the attributes that indicate the level of sophistication of the attacks, the ability to inflict higher levels of harm with their attacks. This is the difference between the 2017 London attack that resulted in four deaths and almost forty injured, and the September 11, 2001, attacks that killed 3,000 people, with a total casualty count of almost 10,000 persons. By keeping separate models, the data is able to represent the ability of violent extremist organizations to carry out attacks and their level of sophistication of those attacks.

The nature of the dependent variables, Attacks and Casualties, require a count model, where the probability of a count is determined by a Poisson distribution and the mean of the distribution is a function of the independent variables. Using a count model avoids the inefficiencies and bias that occur if independent variables are treated as continuous as they would be in an OLS regression model. The count model required additional correction due to the conditional variance exceeding the conditional mean. In order to account for the variance exceeding the mean, a Negative Binomial Regression Model (NBRM) was constructed for each model of analysis.

Model 1:

$$\begin{aligned} \text{Attacks} = & \beta_0 + \beta_1 \text{Positive Constituent Support} + \beta_2 \text{Negative Constituent Support} + \\ & \beta_3 \text{State Sponsorship} + \beta_4 \text{Territory Control} + \beta_5 \text{Opposing Government Military Strength} \\ & + \beta_6 \text{Opposing Government Population Support} + u \end{aligned}$$

Model 2:

$$\begin{aligned} \text{Casualties} = & \beta_0 + \beta_1 \text{Positive Constituent Support} + \beta_2 \text{Negative Constituent Support} + \\ & \beta_3 \text{State Sponsorship} + \beta_4 \text{Territory Control} + \beta_5 \text{Opposing Government Military Strength} \\ & + \beta_6 \text{Opposing Government Population Support} + u \end{aligned}$$

Results

Both Model 1 and Model 2 produced statistically significant findings which associate many of the Group-Attributes as Success-Characteristics. The results of the models are displayed in Table 2:

Table 2: Terrorist Group Attributes on Attacks and Casualties

	Model 1 Total Attacks	Model 2 Total Casualties
Positive Constituent Support	0.532*** (15.34)	0.404*** (10.13)
Negative Constituent Support	-0.0999* (-2.54)	0.350*** (7.25)
State Sponsorship	-0.0129 (-0.16)	0.0824 (0.87)
Territory Control	0.413*** (4.57)	0.304** (2.94)
Opposing Government Military Strength	-10.79* (-2.42)	-8.353* (-1.99)
Opposing Population Support	-0.217*** (-6.86)	-0.470*** (-12.45)
Constant	1.823*** (15.50)	1.203*** (8.37)
ln(Alpha) Constant	0.645*** (22.30)	1.089*** (35.37)
<i>N</i>	1793	1793

t statistics in parentheses

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

In both models the results produced a positive relationship between both Attacks and Casualties and Positive Constituent Support. The models also produce a positive relationship between Casualties and Negative Constituent Support, however, for Attacks, the relationship is negative. A positive relationship was also found for Territory Control in both models. Both Opposing Military Strength and Opposing Population Support produced negative relationships in each of the models. All of the results for Positive Constituent Support, Negative Constituent Support, Territory Control, Opposing Military Strength and Opposing Population Support are

statistically significant at the 95 percent confidence level or greater. For State Sponsorship, no significant relationship was found with either Attacks or Casualties.

Discussion:

The validation of many of these Group-Attributes as Success-Characteristics enables a clearer understanding of violent extremist organizations and potential counter-terrorism strategies. Constituent Reputation Factors present an interesting dynamic. The results for the Positive Reputation Factors revealed that higher level of constituent support enables a violent extremist organization to carry out increased attacks and inflict a higher number of casualties. This continues to hold true when including the Net Reputation in the models rather than separating the positive and negative components. While this confirms Hypothesis 1, the confirmation includes an asterisk noting the potential success of coercive tactics. The Negative Reputation Factors produced a mixed relationship with a small negative relationship between attacks and larger positive relationship for casualties. These findings suggest that coercive actions taken against a group's intended constituency may initially hinder the ability for the group to carry out a terrorist campaign; however, those groups that are able to successfully implement these strong-arm measures gain operational benefits from doing so.

State Sponsorship revealed no statistically significant relationship with the amount of attacks and casualties from an extremist organization. The lack of significant results makes it impossible to reject the Null for Hypothesis 2, and suggests there may, in fact, be a constraining effect from foreign state sponsors. However, when regressing State Sponsorship on both Attacks and Casualties with no other variables in the model, a positive relationship appears. This finding suggests that perhaps this relationship is included within another variable, such as the Positive Constituent Reputation Factors. If this is correct, then the impact of these positive factors goes

further than the intended constituent audience and into the international audience. Further work is needed to explore this theory.

Territory Control produced a positive relationship in both models, meaning that territory control enables a violent extremist organization to carry out more attacks and inflict more casualties, confirming Hypothesis 3. While this finding provides some insight, the operationalization of territory control as a dummy variable limits its contribution. Additional factors regarding the extent of control, population, resources, terrain, and infrastructure will produce a better understanding of the contribution of territory control to the growth and development of extremist groups and their capabilities.

The negative relationship for Opposing Military Strength indicates that a larger size of an opposing government's military, in relation to the size of the population, reduces the ability of a violent extremist organization to carry out a terrorist campaign, or perhaps deters attacks that would result in a repressive government response, and therefore leads to fewer attacks and fewer casualties inflicted. While this result confirms Hypothesis 4, there is likely a component of capability and sophistication of government forces that affect this relationship, which will be explored in future work.

The Opposing Population Support analysis produced the expected negative relationship. This finding provides confirmation for Hypothesis 5, lower support by the population for the opposing government enables a violent extremist group to carry out more attacks and inflict more casualties. The use of a different metric to operationalize this variable may be able to better define this relationship. While the PTS likely captures the willingness of the population to cooperate with the government, there are other inherent factors included in the score that impact the violent actions by extremist organizations.

Conclusion

The results of both models suggest that assessing Group-Attributes as Success-Characteristics could serve as a mechanism for predicting future extremist group problem areas. This predictive mechanism allows governments to more effectively and efficiently employ their limited counter-terrorism resources. Developing an early intervention strategy for groups that have a high level of Success-Characteristics will vastly improve counter-terrorism strategies and potentially cut off extremist groups before they gain the resources and capabilities to carry out a sustained campaign of terrorism, inflicting heavy damage and mass casualties.

This research lays the groundwork for future expansion. Extremist groups successfully implementing coercive tactics, dissecting the impacts state-sponsorship, and the effect of the sophistication level for counter-terrorism forces are all areas to build upon. In addition, incorporating supporting terrorist networks and competing terrorist organizations, terrain and infrastructure impacts on both extremist organizations and counter-terrorism forces, and extremist group access to criminal networks such as weapons and narcotics smuggling, will all potentially produce a greater understanding of extremist group development, and suggest more effective intervention practices. As suggested earlier, data is the greatest restraint in this effort; identifying proper metrics for extremist group attributes is critical to enable further development and understanding.

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