The Influence of Charismatic Authority on Operational Strategies and Attack Outcomes of Terrorist Groups

David C. Hofmann
University of New Brunswick, dhofmann@unb.ca

Follow this and additional works at: https://scholarcommons.usf.edu/jss
pp. 14-44

Recommended Citation
DOI: http://dx.doi.org/10.5038/1944-0472.9.2.1486
Available at: https://scholarcommons.usf.edu/jss/vol9/iss2/3

This Article is brought to you for free and open access by the Open Access Journals at Scholar Commons. It has been accepted for inclusion in Journal of Strategic Security by an authorized editor of Scholar Commons. For more information, please contact scholarcommons@usf.edu.
The Influence of Charismatic Authority on Operational Strategies and Attack Outcomes of Terrorist Groups

Abstract

Despite the historical and contemporary prevalence of charismatic terrorist leaders, there has been very little empirical examination of the relationship between charismatic forms of authority and the strategic operation of terrorist groups. In response to this gap in knowledge, this study seeks to investigate if charismatic authority has a real-world impact on strategic choices and attack outcomes of terrorist groups. Using a theoretical framework meant to help measure charisma in terrorist organizations, this study quantitatively examines how differing levels of the presence of charismatic authority contributes to the choice in operational tactics (e.g., weapon and target choices) and the results of attack outcomes (e.g., success rates, lethality) within a sample of thirty international terrorist groups. In the concluding section, relevant findings, policy recommendations, study limitations, and areas for future research are discussed.

Acknowledgements

This manuscript is an adapted version of a chapter from the author’s Ph.D. dissertation. This research was conducted with financial support from a Public Safety Canada Research Affiliate Grant (2013-2014).
Introduction

In a recent Washington Post article about the leadership of the Islamic State of Iraq and Syria (ISIS), the author reflected in length upon the levels of extreme devotion granted to Abu Bakr al-Baghdadi by the rank-and-file membership:

“Baghdadi’s ability to inspire such intense support worries U.S. officials. His fighters seemingly will go anywhere and do anything for the cause. They combine a fanatical passion with an unusual degree of organization, technical skill and tactical planning... Baghdadi may be more skillful in the field than either of his mentors, Osama bin Laden or Abu Musab al-Zarqawi, the leader of al-Qaeda in Iraq... The ISIS leader, in sum, is a clever, disciplined, violent and charismatic man— with an eye for manipulating Muslim public opinion.”

From the way al-Baghdadi is described, it is evident that he is not a typical “run-of-the-mill” leader. There is something special that differentiates him from other terrorists. He possesses ineffable qualities that allow him to invoke the fanatical loyalty of his followers, who are willing to lay down their lives for his cause. He embodies a potent blend of strong personality, fanaticism, and apparent piety that serves as a rallying cry for the creation of an Islamist state. The implication is that al-Baghdadi’s charisma, and the charismatic qualities of leaders like him, present a significant challenge to Western efforts to combat Islamist terrorism.

The academic literature on the relationship between charismatic authority and strategic organization in benevolent and violent groups is robust and multidisciplinary. Since the 1980s, scholars of management science have increasingly acknowledged that charisma is a key component in effective

---


business leadership and organizational success.\(^3\) Much of this recognition is due to the work of James Burns in his Pulitzer Prize winning book, *Leadership*, which identifies two ways in which leadership can manifest.\(^4\)

The first is transactional leadership, where managers “survey their subordinates’ needs and set goals for them on the basis of the effort they can rationally expect from their subordinates.”\(^5\) These types of leaders are commonplace, are primarily concerned with daily operations, and do not question larger organizational goals. The second type of leadership is transformational, which is conceptually tied to charismatic authority. In contrast to the day-to-day management involved in transactional leadership, transformational leaders “engage the full person of the follower” by arousing a higher level of need.\(^6\) In simpler terms, transformational leaders motivate their subordinates to become personally invested in the well-being and growth of their employer. There are many colloquial examples of charismatic and transformational business leaders such as Lee Iacocca (Chrysler), Richard Branson (Virgin), and Steve Jobs (Apple), who seemingly single-handedly turned around the fortunes of their companies. The effects of transformational leadership on corporate success has been extensively tested, and findings suggest that charismatic business leaders have a real-world effect on the strategic and organizational behaviors of their employees.\(^7\)

The study of how charismatic leaders influence strategic dynamics in violent organizations has also been analysed empirically, particularly in the case of the minority of cults and new religious movements that turn towards violence. Scholars of new religious movements have noted that the escalation to violence in cultic movements is often tied to deviant social dynamics involving charismatic authority.\(^8\) A paradigmatic example is the case of the highly

---


\(^4\) Burns, *Leadership*.


\(^6\) Ibid., 14.


charismatic Shoko Asahara and his adherents in Aum Shinrykyo. In response to his waning authority and pressures to fulfill certain apocalyptical prophecies, Asahara masterminded the Tokyo subway sarin gas attacks in 1995 that killed thirteen individuals and injured thousands. The influence of charismatic leaders on strategic dynamics has also been examined to a lesser degree in the context of radical and terrorist groups. In a survey administered to 650 religious Muslim men who participated in a “Jerusalem Day” protest march in 2002, Ayla Schbley and Clark McCauley noted a significant relationship between charismatic authority and respondents’ willingness to use CBRN (chemical, radiological, biological, and nuclear) weapons. Researchers interested in malevolent creativity within terrorist groups have also recognized the importance of charismatic leaders and entrepreneurs to the creation of innovative strategic behavior: This suggests that, much like in the case of benevolent organizations, diverse factors involving charismatic authority affect strategic behaviors of violent organizations and their members.

There are many historical and contemporary instances of charismatic terrorist leaders who have risen to lead violent political action against perceived injustices. Obvious examples include Shoko Asahara of Aum Shinrykyo, Abdullah Ocalan of the Kurdistan Worker’s Party, Abimael Guzman of the Shining Path, Vellupillai Parabakharan of the Liberation Tigers of Tamil Eelam, Andreas Baader of the Red Army Faction, and Osama Bin Laden of al-Qaida. Yet, despite the prevalence of charismatic terrorist leaders, there has been relatively little scholarly research on how charisma influences important social and strategic dynamics within terrorist groups. This gap in knowledge persists despite widespread acknowledgement by

---


scholars of the importance of charismatic authority in the recruitment and radicalization of terrorist operatives. For example:

“In many of the reviewed studies, evidence seems to indicate the importance of the influence of a peer group or significant other - a charismatic leader, a family member or a trusted peer - as a key in initiating and driving the radicalization process. Many indicate the increasing importance of the peer group leader with regard to outreach and recruitment, not least because overt and top-down recruitment has become more difficult in Europe due to countermeasures of authorities.”¹³

Scholars also acknowledge that charismatic authority plays an important role in how some terrorist groups operate, strategize, and execute successful attacks:

“In order for a group of people with a grievance to turn into a terrorist cell, they need an effective leader. This leadership comes in two forms: operational and charismatic. These two qualities are sometimes found in separate people in a group and sometimes in one person. Operational and charismatic leadership are vital in providing training, motivation, discipline and group cohesiveness. Leadership within the group is the determinant in terrorist “success”.”¹⁴


The common refrain in the terrorism literature is that leaders, particularly charismatic ones, are important to social processes involved in the formation, operation, and demise of their groups. Despite this recognition, a number of pressing questions remain unanswered: How exactly do charismatic terrorist leaders inspire such fanatical levels of devotion from their followers? Are there strategic differences between charismatically-led and other types of terrorist groups? Are charismatically-led terrorist groups more prone to certain types of behaviors than other types of terrorist organizations? Given the worrisome ability of certain terrorist leaders like al-Baghdadi to inspire intense devotion among their followers, it is clear that further scholarly analysis is needed if we are to understand how to properly combat this genre of Islamist fundamentalism.

To date, the terrorism literature that mentions charismatic authority is largely speculative, and there is little empirical research backing up the majority of statements made by scholars about the charismatic nature of certain terrorist leaders. Therefore, the objective of this study is to begin addressing this gap in knowledge by quantitatively examining how differing levels of charismatic authority may influence operational tactics and attack outcomes within terrorist groups. It builds directly from the concluding remarks made by David Hofmann and Lorne Dawson that call for more robust empirical analyses of charismatic terrorist leadership. At this early stage, this study does not seek to authoritatively test specific claims made by terrorism scholars about charismatic terrorist leaders. Rather, it purposefully takes a broad inductive approach. As a result, no specific predictions or hypotheses are made in order to allow for the post hoc application of findings to help strengthen or discredit what we believe to know about the relationship between charismatic terrorist leadership and the strategic operation and outcomes of terrorist attacks.

This article begins with a brief overview of the theoretical background on charismatic authority, although space and scope constraints limit an in-depth
explanation. This is then followed by a presentation of the data, methods, and measures used during analysis. Results from frequency, bivariate, and multivariate models that examine the relationship between varying levels of the presence of charismatic authority, operational tactics (e.g., weapon choice, target choices), and the outcome of terrorist attacks (e.g., success rates, lethality, number of wounded) are then presented. The article finally concludes with a discussion of results, policy recommendations, study limitations, and areas for future research.

What is Charismatic Authority?

The theoretical basis for charismatic authority is derived primarily from Max Weber’s discussion of legitimate domination. In his analysis of how and why people submit to the dominion of others, Weber identifies three “ideal-types” of authority: 1) traditional; 2) rational-legal; and 3) charismatic. Traditional authority is the acceptance of an individual’s or office-holder’s power that is based upon long-standing socio-cultural norms, customs, or traditions (e.g., a monarch, a tribal chieftain). Rational-legal authority demands obedience based upon the recognized power that is intrinsically invested in an office or position (e.g., law enforcement and elected officials). Traditional and rational-legal forms of authority are typically stable, and are focused on the routine, day-to-day governance over a group, organization, or country. In other words, these forms of authority base their legitimacy on well-entrenched hierarchical and bureaucratic social structures. However, when in its “ideal-typical” form, charismatic authority is established in direct opposition to traditional and rational-legal forms of domination. Rather than deriving their authority from long-standing traditions or bureaucractized offices, charismatic leaders demand obedience from their followers based upon the recognition of some extraordinary, supernatural, or divine quality. As Weber explains, it is this “extraordinariness” that differentiates

17 For a more comprehensive overview of charismatic authority in the context of terrorism studies, consult Hofmann and Dawson, “The Neglected Role of Charismatic Authority,” 359-355.
19 An “ideal-type” (also known as “pure” type) is a sociological concept developed by Weber. Ideal-types are primarily used by social scientists to compare and analyze abstract social scientific concepts. They consist of a number of characteristics used to describe a social phenomenon which, will never manifest in a “pure” sense in reality. For example, a leader will never actually display all the characteristics of a “pure” charismatic leader. Rather, he/she will display varying elements, traits, and relationships that qualify them as “charismatic” when using the ideal-typical definition of a charismatic leader as a point of reference.
charismatic leaders from their traditional and rational-legal counterparts:

“[Charisma is] a certain quality of an individual personality by virtue of which he is set apart from ordinary men, and treated as endowed with supernatural, superhuman, or at least specifically exceptional powers or qualities. These are such as are not accessible to the ordinary person, but are regarded as of divine origin or as exemplary, and on the basis of them the individual concerned is treated as a leader.”

This perceived “extraordinariness” can vary greatly. People may submit to a charismatic leader based upon perceptions of something as simple as superior oratorical skills, or followers may fervently believe in the god-like nature of the charismatic leader. Regardless of how it manifests, if a truly charismatic leader manages to gather a following, perceptions of the leader’s exceptional nature can move and inspire adherents to surrender themselves completely to the fulfillment of the leader’s stated goals. As Dawson notes, there are other social, strategic, and structural conditions that need to be met in order for a charismatic leader to be successful. But, if established, the bond between charismatic leaders and their followers is truly unique: “In its “pure form” charismatic authority involves a degree of commitment on the part of the disciples that has no parallel in [traditional and rational-legal] types of domination.” It is this special bond of love and loyalty formed between a charismatic leader and his or her flock that serves as a catalyst for the commission of both remarkable and terrible acts.

Scholars note that charismatic authority tends to manifest primarily during times of socio-cultural, political, and religious turmoil. If traditional and
rational-legal forms of authority are seen as incapable of resolving the crisis, people can become “charisma hungry” in search of a resolution. There are numerous historical examples of this phenomenon. Charismatic leaders like Adolf Hitler, Mohandas Gandhi, Winston Churchill, Joan of Arc, and Martin Luther King Jr. almost always stand at the heart of social and political movements that challenge conventional norms and drastically alter the social landscape, for good or for ill. Since the basis for a charismatic leader’s authority lies in the perception of the extraordinary qualities of an individual, they are not hampered by the rules and traditions which govern the more stable forms of authority. As a result, the power that they wield can be virtually unrestricted in its scope. In this sense, charismatic authority is both anti-institutional and a force for change. Given the tumultuous, change-oriented nature of charismatic authority, it is unsurprising that terrorism is fertile soil for the emergence of charismatic leaders who are focused on social and political change through the use of coercive violence.

As a final note, the type of relationship formed between charismatic leaders and their followers is best conceived as a mutually-established dyadic bond:

“The general consensus among scholars is that the focal point of research should be the relationship between the charismatic leader and his or her followers and not the individual psychological qualities of the leaders. This relationship, also known as “the charismatic bond,” is socially constructed through a complex process of negotiation. It rests on an exchange of mutual needs, where the charismatic leader is granted authority by the followers in return for recognition, affection, and reinforcement of worth (emphasis original).”

In simpler terms, the charismatic relationship should not be understood as the unilateral imposition of the leader’s strong will upon his or her mindless followers. Rather, both leaders and followers are active participants in the formation of the charismatic bond, and both parties gain something from the

29 Hofmann and Dawson, “The Neglected Role of Charismatic Authority,” 351.
relationship. As a result, there is scholarly agreement that the focal point of research on charismatic authority should be on the formation and maintenance of this special type of relational bond.30

Data and Methods

Research Objective and Focus

The primary objective of this study is the quantitative examination of the relationship between varying levels of the presence of charismatic authority (PCA) among a sample of thirty international terrorist groups (n = 30) and their strategic choices (e.g., target preferences, attack methods). It also attempts to determine whether groups with higher levels of the PCA are likely to be more successful and/or more destructive (reflected by lethality rates and number of wounded victims/perpetrators). This study employs a predictor variable that was coded using a theoretical framework (the “PCA indicators”) designed for measuring the presence of charismatic authority within and across terrorist groups.31 The predictor variable was then used to test the relationship between the PCA scores of each group in the sample with a number of outcome variables that reflect a range of strategic choices and attack outcomes.

The current study focuses exclusively on non-state actors, rather than exploring the presence of charismatic authority within the contexts of either insurgent or state terrorism. The decision to exclude state terrorism from the analysis was due to the nature of the authority relationships examined in this study. Charismatic authority within small and clandestine groups is based on according power to an individual who actively challenges and seeks to replace established social norms and governance, while “charismatic” political leaders typically operate within the bureaucratized structure of traditional or rational-legal authority. In other words, the charisma attributed to “likeable” political leaders is superficial and is not the same sort of intense and personal bond formed between a “pure” charismatic leader and his or her followers.32 There are very few politicians who are venerated by followers in the same manner as highly charismatic terrorist leaders. This does not mean that the


31 Hofmann, “Quantifying and Qualifying Charisma.”

PCA indicators cannot be adapted to account for certain extreme types of charismatic political leaders and dictators who perpetrate or support state terrorism (e.g., Ayotollah Khomeni, Kim Jong Un, Muammar Gaddafi). But the theoretical framework presented in this study focuses on the “ideal-typical” charismatic relationship that is antithetical to traditional and rational-legal forms of authority, and is therefore better suited for analyzing non-state terrorist groups.

**Dataset**

The data were taken from the Global Terrorism Database (GTD), which is maintained by the National Consortium for the Study of Terrorism and Responses to Terrorism (START). The GTD uses publically available and unclassified data to record various characteristics of incidents of terrorist violence from events occurring between 1970 and 2011. Data sources include media articles, electronic news archives, existing datasets, books, journals, and legal documents. This limits the incidents within the study sample to successfully executed attacks that have been recorded by START and whose details are known to the general public.

**Sample Selection and Data Inclusion**

The focus on contrasting a group level variable (the PCA within terrorist groups) with incident-based data led to the creation of a modified dataset with hierarchical data (also known as nested or clustered data) comprising of two distinct levels. The first level includes the various descriptive variables for each incident (e.g., attack type, number of perpetrators, number of victims), which are nested in the second level of data, comprised of the thirty terrorist groups that make up the study sample. The hierarchical nature of the data necessitated the use of survey-based variance estimates for models at the bivariate level, and the use of random intercept multi-level models at the multivariate level to account for the non-independence of cases.

For the selection of groups, each distinct terrorist organization listed in the GTD was given a sequential numerical value. A random number generator was then used to select groups for the sample. The viability of each group for inclusion in the final sample was assessed during the coding process. Those with insufficient available information (e.g., language issues, security/publication bans) to allow for comprehensive coding were discarded.

---

The groups included in the final sample are listed in Table 1, in descending order of PCA scores.

**Table 1: List of Groups Included in Final Sample in Rank Order from Highest to Lowest PCA Score**

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lord’s Resistance Army (LRA)</td>
<td>Liberation Tigers of Tamil Eelam (LTTE)</td>
</tr>
<tr>
<td>Taliban</td>
<td>Shining Path</td>
</tr>
<tr>
<td>Kurdistan Worker’s Party (PKK)</td>
<td>Hizballah</td>
</tr>
<tr>
<td>Jewish Defense League (JDL)</td>
<td>Symbionese Liberation Army (SLA)</td>
</tr>
<tr>
<td>Jemaah Islamiya (JI)</td>
<td>Revolutionary Armed Forces of Colombia (FARC)</td>
</tr>
<tr>
<td>Baader-Meinhof Group</td>
<td>Moro Islamic Liberation Front (MILF)</td>
</tr>
<tr>
<td>Red Army Faction (RAF)</td>
<td>al-Gama’at al-Islamiyya</td>
</tr>
<tr>
<td>Palestine Liberation Organization (PLO)</td>
<td>Palestinian Islamic Jihad (PIJ)</td>
</tr>
<tr>
<td>Popular Front for the Liberation of Palestine (PFLP)</td>
<td>National Liberation Army of Colombia (ELN)</td>
</tr>
<tr>
<td>Tupac Amaru Revolutionary Movement (MRTA)</td>
<td>New People’s Army</td>
</tr>
<tr>
<td>Ulster Volunteer Force (UVF)</td>
<td>Armed Islamic Group (GIA)</td>
</tr>
<tr>
<td>Ulster Freedom Fighters (UFF)</td>
<td>Basque Fatherland and Freedom (ETA)</td>
</tr>
<tr>
<td>Army of God</td>
<td>Irish Republican Army (IRA)</td>
</tr>
<tr>
<td>Farabundo Marti National Liberation Front (FMLN)</td>
<td>Animal Liberation Front (ALF)</td>
</tr>
<tr>
<td>Weather Underground</td>
<td>Red Brigades</td>
</tr>
<tr>
<td>Action Directe</td>
<td></td>
</tr>
</tbody>
</table>

In order to avoid blindly blending multiple off-shoot groups into the larger organizations from which they were created, attack incidents in the GTD executed by a splinter or sub-group were excluded from the final dataset (e.g., [Hofmann: The Influence of Charismatic Authority](hft)).
when an alternate group is listed). This was done in order to avoid the conflation of terrorist organizations with similar ideologies, goals, and methods, but whose levels of the PCA may have differed greatly. This limits the data somewhat, because it is impossible to correctly identify the “true” perpetrators of terrorist incidents one-hundred percent of the time. Findings should be interpreted with this limitation in mind.

The incident data nested within the thirty terrorist groups chosen for analysis were also subjected to three inclusion criteria: 1) the selected incident must not have been in doubt as to whether it was a terrorist act (using the doubt terrorism proper variable when data were available); 2) the selected incident was perpetrated by an actual known terrorist entity, as opposed to suspected umbrella affiliations (Kashmiri separatists, Jewish radicals, anti-abortion activists etc.); and 3) the selected incident conformed to all three GTD definitions of terrorism. Incidents that did not conform to these three criteria were excluded. The GTD’s three criteria for the definition of terrorism are as follows:

- The incident must be intentional
- The incident must entail some level of violence or threat of violence
- The perpetrators of the incidents must be sub-national actors

Table 2: Coding Scheme for PCA Scores

<table>
<thead>
<tr>
<th>Code</th>
<th>Qualitative Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Never the case (0% of the time)</td>
</tr>
<tr>
<td>1</td>
<td>Rarely the case (&lt;25% of the time)</td>
</tr>
<tr>
<td>2</td>
<td>Sometimes the case (Between 25-49% of the time)</td>
</tr>
<tr>
<td>3</td>
<td>Often the case (Between 50-74% of the time)</td>
</tr>
<tr>
<td>4</td>
<td>Very often the case (Between 75-99% of the time)</td>
</tr>
<tr>
<td>5</td>
<td>Always the case (100% of the time)</td>
</tr>
</tbody>
</table>

As a result, the modified dataset was limited to incidents perpetrated by known non-state actors who committed clearly identifiable acts of terrorism, as per the GTD’s definition. After application of the inclusion/exclusion criteria, a total of 18,172 terrorist incidents were included in the final modified dataset, nested within thirty terrorist groups.

**Coding the Predictor Variable**

The GTD is a critical incident database of terrorist attacks that collects information on variables such as methods of attack, fatalities, property damage, tactics used, etc. The data are meant to provide a broad overview of terrorist activities and methods, but reveal little about the social realities within the groups themselves, such as ideology, motivations, and relationships. Therefore, no existing variable within the GTD can be used to gauge the presence of charismatic authority within the groups listed in the database. As a result, the construction of a variable capable of assessing the presence of charismatic authority within terrorist groups was required. This was done by using a list of fourteen indicators (the “PCA indicators”) meant to assist in the qualitative and/or quantitative operationalization of charismatic authority in the context of terrorist groups. The PCA indicators are based on Weber’s theories of legitimate domination, as well as empirical insights from charismatic authority in new religious movements. Full descriptions of each indicator are available in the article outlining the theoretical framework.\(^{35}\)

The list of indicators are as follows:

1. Are attributions of power to the leader based on the followers’ perception of the leader’s supernatural or superhuman and/or exceptional powers and qualities?
2. Is the authority of the leader interpreted in terms of ingrained and traditional conceptions of charismatic authority in the broader society and culture?
3. Is authority attributed to the leader on the basis of the perception that there is an impending or current crisis, one associated with the bankruptcy of existing forms of traditional and/or rational-legal forms of authority?
4. Is the authority attributed to the leader associated with any physical impairment or suffering which is viewed positively by the followers?

---

\(^{35}\) See Hofmann, “Quantifying and Qualifying Charisma,” 715-721.
5. Does the leader legitimate their authority through reference to a higher source of authority, either divine or some other transcendent source (i.e., a supreme ideology)?
6. Are grandiose and exaggerated claims made about the nature and scope of the leader’s authority and importance?
7. Are new members socialized into recognizing the special powers and authority of the leader?
8. Does the leader figure prominently in the folklore of the group and the representation of its ‘story’?
9. Are organizational decisions highly centralized and reliant on the will of the leader?
10. Is the leader intolerant of alternative sources of power and authority, both internal and external to the group?
11. Does the leader introduce sudden and/or seemingly arbitrary changes in the practices and policies of the group?
12. Do followers readily accept these sudden and/or seemingly arbitrary changes in the practices and policies of the group?
13. Is the delegation of authority highly centralized and reliant on the will of the leader?
14. Does the legitimacy of subordinate leaders in the group depend on the nature of their personal relationship with the leader?

On a group-to-group basis, coding involved assigning a value to each of the PCA indicators using a scale ranging between zero and five. Each number on the scale corresponds with a qualitative descriptor. The coding scheme used is available in Table 2. Using the scale as a guide, the coder made an informed choice based on available sources of information before assigning a value for each indicator. A coding table was constructed for each group, which allowed for annotation and organization of material for each indicator. Triangulation methods were used as much as possible to ensure that the data used for analysis was reliable. Information on groups were gleaned from case studies, peer-reviewed articles, scholarly books, historical accounts, online videos, biographies, as well as media and journalistic accounts taken from the Factiva and Lexis-Nexis databases. Each group was meticulously researched prior to actual coding. In cases where groups had undefined or unclear leadership (e.g., multiple leaders, spiritual vs. operational leaders), the coder made an informed judgement call and the leader most involved in

the creation and shaping of the group’s ideology was chosen for analysis. If multiple leaders were responsible for creating and shaping the group’s ideology, they were all considered as a single entity for the purposes of coding. Coding for the current study was done individually by the author.\textsuperscript{37}

Measures

\textit{Predictor Variable: Presence of Charismatic Authority Scale (PCA scale)}

Upon completion of the coding process, the fourteen PCA indicators were added together to create the predictor variable: The PCA scale. Since the indicators have not been tested for reliability elsewhere, a test-retest reliability analysis with an 18-month time lag was conducted by re-coding the PCA scores of a random subset of ten groups taken from the study sample.\textsuperscript{38} The results of the test-retest reliability analysis indicate an acceptable level of correlation ($r = 0.781$), which suggests that the coding process was reliable. In addition, a principle components analysis test (direct oblimin) was conducted to ensure internal consistency of the PCA score. The results of the Kaiser-Meyer-Olkin test (.801) and Bartlett’s test ($p < .001$) indicated the suitability of a principal components analysis. There are three eigenvalues over 1 (8.223, 1.601 and 1.087), however the scree plot indicates strong evidence for a single factor solution. All items aside from 3, 4, and 5, load onto the same latent factor. Cronbach’s alpha for the eleven-item PCA scale is .954, which indicates a high level of internal consistency. As a result, the final PCA scale was constructed from eleven of the fourteen indicators (items 1-2, 6-14). The mean PCA score for the sample was 21.03 (observed range = 0-50; SD = 14.95). The scale is normally distributed.

\textit{Outcome Variables}

The outcome variables chosen for analysis reflect a large range of attack outcomes, behaviors, tactics, and operational choices made by terrorist groups in the sample, but are constrained by what is available within the GTD. A total of eleven outcome variables were included in the models, and can be broadly categorized in two main groups: 1) ‘operational choices’; and

\textsuperscript{37} For access to the dataset used in this analysis, please contact the author via email.

\textsuperscript{38} The test-retest reliability analysis was chosen due to the fact there was only a single coder for the PCA scores. Since coding PCA scores for each group was time intensive, it was unfeasible to add a second coder for the purposes of inter-rater reliability analyses. In order to avoid bias that could distort the results of the second round of coding, research for each group was conducted with a “clean slate” approach that did not draw on previous notes from the first round of coding.
2) ‘attack outcomes’. Operational choice variables include measures meant to identify preferences of tactics, targets, and methods for terrorist attacks. It consists of six variables: 1) suicide attack? (dichotomous yes/no); 2) attack type (nominal with 10 categories); 3) target type (nominal with 22 categories); 4) weapon type (nominal with 13 categories); 5) number of perpetrators; and 6) hostage/kidnapping victims? (dichotomous yes/no).

‘Attack outcomes’ consists of a total of five variables that measure the aftermath of each incident: 1) successful attack? (dichotomous yes/no); 2) number of victim fatalities; 3) number of perpetrator fatalities; 4) number of injured victims; and 5) number of perpetrators injured. Detailed descriptions of each outcome variable and their categories are available within the GTD coding handbook. A full list of the outcome variables chosen for analysis are available in Table 3.

Table 3: List of Outcome Variables

<table>
<thead>
<tr>
<th>Operational Choices</th>
<th>Attack Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide Attack?</td>
<td>Successful Attack?</td>
</tr>
<tr>
<td>Attack Type</td>
<td>Number of Victim Fatalities</td>
</tr>
<tr>
<td>Target Type</td>
<td>Number of Perpetrator Fatalities</td>
</tr>
<tr>
<td>Weapon Type</td>
<td>Number of Injured Victims</td>
</tr>
<tr>
<td>Number of Perpetrators</td>
<td>Number of Perpetrators Injured</td>
</tr>
<tr>
<td>Hostage/Kidnapping Victims?</td>
<td></td>
</tr>
</tbody>
</table>

Control Variables

For the multivariate models, three additional control variables were included to account for differences across geographical regions, time periods, and group ideology. The region control variable consists of thirteen nominal categories that divided incidents into large continental and geographical regions (South America, Western Europe, South Asia, Central America & Caribbean, Middle East and North Africa, Southeast Asia, North America, Sub-Saharan Africa, Eastern Europe, and Australia & Oceania). The decade control variable consists of four time periods: The 1970’s, 1980’s, 1990’s, and 2000’s.

---

39 In order to properly interpret whether or not charismatic forms of leadership influence more extreme or aggressive forms of behaviors among their followers, the severity of strategies or attacks employed by terrorist groups need to be qualitatively ordered. Therefore for the purposes of this study, attack types, targets, and strategies that have a higher likelihood of causing personal or bodily harm (e.g., the use of assassination, armed assault, bombings/explosions, the targeting of private citizens and police, and so on) are treated as more extreme and aggressive forms of behavior than those with a lesser likelihood of the same outcome (e.g., hijacking, hostage taking, targeting utilities and water supply, and so on).

40 START, “Global Terrorism Database.”
2000-2011. Lastly, a broadly defined ideology control variable was included to account for ideological differences across the sample (ethno-nationalist, right-wing, left-wing, and religious).41

Table 4: Attack Incident Frequency across Groups

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Frequency</th>
<th>Group Name</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Directe</td>
<td>48</td>
<td>MILF</td>
<td>186</td>
</tr>
<tr>
<td>Al-Gama’at al-Islamiyya</td>
<td>239</td>
<td>ELN</td>
<td>1,081</td>
</tr>
<tr>
<td>Animal Liberation Front</td>
<td>90</td>
<td>New People’s Army</td>
<td>800</td>
</tr>
<tr>
<td>Armed Islamic Group</td>
<td>197</td>
<td>PLO</td>
<td>74</td>
</tr>
<tr>
<td>Army of God</td>
<td>23</td>
<td>Palestinian Islamic Jihad</td>
<td>94</td>
</tr>
<tr>
<td>Baader Meinhof Group</td>
<td>88</td>
<td>PFLP</td>
<td>110</td>
</tr>
<tr>
<td>ETA</td>
<td>1,663</td>
<td>Red Brigades</td>
<td>199</td>
</tr>
<tr>
<td>FMLN</td>
<td>2,098</td>
<td>FARC</td>
<td>1,263</td>
</tr>
<tr>
<td>Hezbollah</td>
<td>163</td>
<td>Shining Path</td>
<td>3,970</td>
</tr>
<tr>
<td>Irish Republican Army</td>
<td>1,587</td>
<td>SLA</td>
<td>4</td>
</tr>
<tr>
<td>Jemaah Islamiya</td>
<td>70</td>
<td>Taliban</td>
<td>1,151</td>
</tr>
<tr>
<td>Jewish Defense League</td>
<td>78</td>
<td>MRTA</td>
<td>516</td>
</tr>
<tr>
<td>PKK</td>
<td>806</td>
<td>Ulster Freedom Fighters</td>
<td>217</td>
</tr>
<tr>
<td>LIITE</td>
<td>973</td>
<td>Ulster Volunteer Force</td>
<td>234</td>
</tr>
<tr>
<td>Lord’s Resistance Army</td>
<td>140</td>
<td>Weathermen</td>
<td>40</td>
</tr>
</tbody>
</table>

Results

Frequency statistics for attack incidents perpetrated by the study sample are available in Table 4. The descriptive statistics for attack incidents indicate that the groups within the study sample committed an average of 606 terrorist attacks (ranging from 4 to 3,970 attack incidents). The median value is 198 terrorist attacks, and there is a high amount of dispersion (SD = 858.42).

Descriptive statistics for the five higher-order outcome variables are available in Table 5 and provide information on: 1) number of perpetrators; 2) number of victim fatalities; 3) number of perpetrator fatalities; 4) number of injured victims; and 5) number of perpetrators injured. The data show that on average, terrorist incidents involved around 31 perpetrators (M = 31.26), though slightly more than half were committed by groups of five or fewer perpetrators (57% of incidents). The lethality of attacks within the sample

41 The ideological categories were purposefully chosen to be broad (e.g., ‘Religious’ instead of ‘Islamist’/ ‘Fundamentalist Christian’, and so on) to account for the relatively small sample (n = 30). In case where a certain group could be described with multiple ideological categories (e.g., the PKK as ethno-nationalist and leftist), a judgement call was made by the coder to choose the primary ideology that best fit the group.
appeared to have been relatively low, with an average of close to two victim fatalities (M = 1.99) per incident. The vast majority of attacks (n = 9,521) resulted in no victim casualties, and more than 95 percent of attacks claimed 10 lives or less. There are similar trends for the number of victims wounded (M = 2.72), with 77 percent of attacks (n = 12,121) resulting in no injuries among victims, and 96 percent of attacks resulting in ten or fewer injuries. Among the perpetrators, there were relatively few fatalities (M = 0.36) and injuries (M = 0.05) per incident. Close to 88 percent of terrorist attacks (n = 3,200) resulted in no fatalities among the perpetrators, and 97 percent of attacks resulted in three fatalities or fewer among the perpetrators. Findings are similar for the number of perpetrators injured, with 98 percent of incidents (n = 3,435) indicating no injuries.

**Table 5: Descriptive Statistics for Higher-Order Outcome Variables**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Max</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Perpetrators</td>
<td>31.26</td>
<td>74.23</td>
<td>1,000</td>
<td>2,640</td>
</tr>
<tr>
<td>Number of Victim Fatalities</td>
<td>1.99</td>
<td>7.06</td>
<td>375</td>
<td>16,681</td>
</tr>
<tr>
<td>Number of Perpetrator Fatalities</td>
<td>0.36</td>
<td>2.07</td>
<td>70</td>
<td>3,665</td>
</tr>
<tr>
<td>Number of Injured Victims</td>
<td>2.72</td>
<td>80.81</td>
<td>10,000</td>
<td>16,065</td>
</tr>
<tr>
<td>Number of Perpetrators Injured</td>
<td>0.05</td>
<td>0.49</td>
<td>11</td>
<td>3,498</td>
</tr>
</tbody>
</table>

**Table 6: Frequency Statistics for Dichotomous Outcome Variables**

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful attack?</td>
<td>1,291</td>
<td>16,880</td>
<td>18,171</td>
</tr>
<tr>
<td>Suicide attack?</td>
<td>17,905</td>
<td>267</td>
<td>18,172</td>
</tr>
<tr>
<td>Hostages or Kidnapping?</td>
<td>16,574</td>
<td>1,579</td>
<td>18,153</td>
</tr>
</tbody>
</table>

Table 6 displays the frequency statistics for the three dichotomous variables: 1) successful attack?; 2) suicide attack?; and 3) hostages or kidnapping victims? Nearly 93 percent of attack incidents were deemed successful (n = 16,880), and less than two percent of attacks involved suicide tactics (n = 267). Lastly, approximately nine percent of incidents (n = 1,579) involved kidnapping or hostage taking.
Frequency statistics for the three multi-category nominal variables (attack type, target type, weapon type) and the three control variables (region, decade, ideology) in Table 7 reveal a number of trends in regard to strategic choices made by the study sample. The preferred method of attack was the use of bombs/explosives (n = 8,169), with 45 percent of incidents involving some form of explosive device. The other two favored methods of attack were armed assault (n = 3,857, 21.2%) and assassination (n = 3,037, 16.7%). The favored target was private property and citizens (n = 3,781, 20.8%), followed by businesses (n = 3,604, 19.8%), police targets (n = 2,549, 14.0%), and general government targets (n = 2,427, 13.4%). The weapon of choice for terrorist

<table>
<thead>
<tr>
<th>Attack Type:</th>
<th>Frequency</th>
<th>%</th>
<th>Target Type:</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombing/Explosion</td>
<td>8,169</td>
<td>45.0</td>
<td>Private Citizens/Property</td>
<td>3,781</td>
<td>20.8</td>
</tr>
<tr>
<td>Armed Assault</td>
<td>3,857</td>
<td>21.2</td>
<td>Business</td>
<td>3,604</td>
<td>19.8</td>
</tr>
<tr>
<td>Assassination</td>
<td>3,037</td>
<td>16.7</td>
<td>Police</td>
<td>2,549</td>
<td>14.0</td>
</tr>
<tr>
<td>Facility/Infrastructure</td>
<td>1,298</td>
<td>7.1</td>
<td>Government (General)</td>
<td>2,427</td>
<td>13.4</td>
</tr>
<tr>
<td>Hostage Taking (Kidnapping)</td>
<td>1,094</td>
<td>6.0</td>
<td>Utilities</td>
<td>2,023</td>
<td>11.1</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>450</td>
<td>2.5</td>
<td>Non-Aviation Transport</td>
<td>1,006</td>
<td>5.5</td>
</tr>
<tr>
<td>Hostage Taking (Barricade)</td>
<td>197</td>
<td>1.1</td>
<td>Military</td>
<td>510</td>
<td>2.8</td>
</tr>
<tr>
<td>Hijacking</td>
<td>46</td>
<td>0.3</td>
<td>Educational Institutions</td>
<td>376</td>
<td>2.1</td>
</tr>
<tr>
<td>Unarmed Assault</td>
<td>24</td>
<td>0.1</td>
<td>Journalists/Media</td>
<td>332</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Government (Diplomatic)</td>
<td>284</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Religious figures/locales</td>
<td>248</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>225</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other Terrorists</td>
<td>101</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NGOs</td>
<td>70</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tourists</td>
<td>65</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Food/Water Supply</td>
<td>56</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Violent Political Parties</td>
<td>47</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maritime Transportation</td>
<td>45</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Abortion Related</td>
<td>22</td>
<td>0.1</td>
</tr>
<tr>
<td>Region:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>6,829</td>
<td>37.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Europe</td>
<td>4,231</td>
<td>23.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Asia</td>
<td>2,124</td>
<td>11.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central America &amp; Caribbean</td>
<td>2,099</td>
<td>11.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>1,474</td>
<td>8.1</td>
<td>Other Terrorists</td>
<td>101</td>
<td>0.6</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>1,055</td>
<td>5.8</td>
<td>NGOs</td>
<td>70</td>
<td>0.4</td>
</tr>
<tr>
<td>North America</td>
<td>209</td>
<td>1.2</td>
<td>Tourists</td>
<td>65</td>
<td>0.4</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>146</td>
<td>0.8</td>
<td>Food/Water Supply</td>
<td>56</td>
<td>0.3</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>4</td>
<td>0.0</td>
<td>Violent Political Parties</td>
<td>47</td>
<td>0.3</td>
</tr>
<tr>
<td>Australia and Oceania</td>
<td>1</td>
<td>0.0</td>
<td>Maritime Transportation</td>
<td>45</td>
<td>0.2</td>
</tr>
<tr>
<td>Decade:</td>
<td></td>
<td></td>
<td>Abortion Related</td>
<td>22</td>
<td>0.1</td>
</tr>
<tr>
<td>1970-1979 (1970s)</td>
<td>1,676</td>
<td>9.2</td>
<td>Explosives/Bombs/TNT</td>
<td>8,284</td>
<td>45.6</td>
</tr>
<tr>
<td>1980-1989 (1980s)</td>
<td>7,956</td>
<td>43.8</td>
<td>Firearms</td>
<td>6,635</td>
<td>36.5</td>
</tr>
<tr>
<td>1990-1999 (1990s)</td>
<td>5,423</td>
<td>29.8</td>
<td>Other/Unknown</td>
<td>1,610</td>
<td>8.9</td>
</tr>
<tr>
<td>2001-2011 (2000 onwards)</td>
<td>3,117</td>
<td>17.2</td>
<td>Incendiary</td>
<td>1,401</td>
<td>7.7</td>
</tr>
<tr>
<td>Ideology:</td>
<td></td>
<td></td>
<td>Melee</td>
<td>204</td>
<td>1.1</td>
</tr>
<tr>
<td>Left-wing</td>
<td>10,196</td>
<td>56.1</td>
<td>Chemical</td>
<td>16</td>
<td>0.1</td>
</tr>
<tr>
<td>Ethno-nationalist</td>
<td>5,634</td>
<td>31.0</td>
<td>Sabotage Equipment</td>
<td>9</td>
<td>0.1</td>
</tr>
<tr>
<td>Religious</td>
<td>2,341</td>
<td>12.9</td>
<td>Vehicle</td>
<td>4</td>
<td>0.0</td>
</tr>
<tr>
<td>Right-wing</td>
<td>0</td>
<td>0.0</td>
<td>Fake Weapons</td>
<td>1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

n = 18,172
groups within the sample was explosives/bombs/TNT (n = 8,284), with 45.6 percent of terrorist incidents involving explosives as the primary weapon. The next most frequent weapons of choice were firearms (n = 6,635, 36.5%), other/unknown weapons (n = 1,610, 8.9%), and incendiary weapons (n = 1,401, 7.7%). There were no recorded terrorist events using biological, radiological, or nuclear weapons within the study sample. Frequency statistics for the decade, region, and ideology control variables reveal that the majority of attack incidents occurred in the 1980s (n = 7,956, 43.8%) and 1990s (n = 5,423, 29.8%), took place mostly in South America (n = 6,829, 37.6%) and Western Europe (n = 4,231, 23.3%), and primarily involved groups with left-wing (n = 10,196, 56.1%) and ethno-nationalist ideologies (n = 5,634, 31%).

For the purposes of the bivariate and multivariate analyses, categories with relatively low frequencies were recoded into their respective 'other' categories. For attack type, this included hijacking (n = 46, 0.3%) and unarmed assault (n = 24, 0.1%). For target type, the threshold for recoding was categories with less than 100 cases (NGOs, tourists, food and water supply, violent political parties, maritime ports and facilities, abortion related). In weapon type, the recoded categories included chemical weapons (n = 16, 0.1%), fake weapons (n = 1, 0.0%), vehicles (n = 4, 0.0%), and sabotage attacks (n = 9, 0.1%).

Table 8: Results of Spearman’s correlation (survey-based variance estimates) – PCA scores by outcome variables

<table>
<thead>
<tr>
<th></th>
<th>Spearman’s rho</th>
<th>Sig.</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Victim Fatalities</td>
<td>0.317**</td>
<td>0.006</td>
<td>16,681</td>
</tr>
<tr>
<td>Number of Perpetrator Fatalities</td>
<td>0.239</td>
<td>0.746</td>
<td>3,665</td>
</tr>
<tr>
<td>Number of Victims Injured</td>
<td>0.258</td>
<td>0.304</td>
<td>15,814</td>
</tr>
<tr>
<td>Number of Perpetrators Injured</td>
<td>0.017</td>
<td>0.166</td>
<td>3,498</td>
</tr>
<tr>
<td>Number of Perpetrators</td>
<td>-0.258</td>
<td>0.591</td>
<td>2,640</td>
</tr>
</tbody>
</table>

*p < .001  ** p < .05  * p < .10

In order to understand how the PCA scores varied according to each of the five higher-order outcome variables at the bivariate level, Spearman correlations (employing survey-based variance estimates to account for the clustered data) were examined. Results are available in Table 8, and show that the only significant relationship is number of victim fatalities (rho = 0.317, p < .05). This suggests that higher number of victim fatalities involved in terrorist events is positively correlated with higher levels of the PCA.
The results of ANOVA tests (employing survey-based variance estimates) to compare the differences in means of the PCA scores across the three multiclass nominal variables (attack type, weapon type, and target type) are available in Table 9. Attack type \((F = 50.60, p < .001)\) and target type \((F = 100.86, p < .05)\) are significant, and suggest that certain types of strategies were employed in relation to higher PCA scores within the sample. In regard to attack type, terrorist events with higher than average levels of the PCA favored ‘other’ weapons \((M = 29.44)\), armed assault \((M = 26.52)\), and kidnapping \((M = 24.14)\). Post hoc analyses using the Scheffé criterion for significance indicate that for attack type, the average number of errors was significantly lower in the bombings/explosions \((M = 5.47)\) and facility/infrastructure \((M = 1.85)\) conditions than in the remaining conditions \((M = 0.21\text{ to } 7.56)\). For target type, terrorist events that exhibited relative higher average levels of the PCA favored attack targets such as

![Table 9: Results of ANOVA and t-tests (survey-based variance estimates) - PCA scores by outcome variables](image-url)
educational institutions (M = 31.67), religious figures / locales (M = 31.06), other targets than those listed (M = 28.44), and both general (M = 26.28) and diplomatic (M = 26.81) government targets. Scheffé post hoc analysis results for target type indicate that the average number of errors was lower in the utilities (M = -0.04) and telecommunications (M = 0.43) conditions than in the remaining conditions (M = 4.41 to 9.45). At the bivariate level, weapon type was found to be non-significant (F = 1.86, p > .05), which suggests that differing levels of PCA had no effect on the choice of weapons within the study sample.

In order to compare differences across means, t-tests (employing survey-based variance estimates) were conducted for the remaining three dichotomous variables (successful attack? suicide attack? and hostages/kidnapping?). Results of the t-tests in Table 9 show that all three relationships are significant (p < .05). Terrorist events that had higher relative PCA scores tended to be more successful (‘No’ mean = 19.39 / ‘Yes’ mean = 23.40, p < .001). Unsurprisingly, terrorist groups that have higher relative levels of the PCA were much more likely to engage in suicide attacks (‘No’ mean = 22.89 / ‘Yes’ mean = 38.61, p < .001). Lastly, there is not much difference in the means for the hostages/kidnapping? variable (‘No’ mean = 23.02 / ‘Yes’ mean = 23.96, p < .05), suggesting that while the relationship is significant, the presence of charismatic authority did not greatly affect whether or not the groups engaged in hostage or kidnapping events.

Table 10: Multi-level linear and logistic model regression results – centered PCA scores predicting outcome variables

<table>
<thead>
<tr>
<th>Higher-Order Variables:</th>
<th>b</th>
<th>SE</th>
<th>SD</th>
<th>Dichotomous Variables:</th>
<th>b</th>
<th>SE</th>
<th>OR</th>
<th>ICC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Victim Fatalities</td>
<td>0.052</td>
<td>0.993</td>
<td>2.349</td>
<td>Successful Attack?</td>
<td>2.334*</td>
<td>0.378</td>
<td>1.014</td>
<td>0.040</td>
</tr>
<tr>
<td>Number of Victims Injured</td>
<td>0.682</td>
<td>0.076</td>
<td>1.450</td>
<td>Suicide Attack?</td>
<td>0.005</td>
<td>0.036</td>
<td>1.004</td>
<td>0.117</td>
</tr>
<tr>
<td>Number of Perpetrator Fatalities</td>
<td>0.086</td>
<td>0.310</td>
<td>1.670</td>
<td>Hostages/Kidnapping?</td>
<td>-0.047*</td>
<td>0.022</td>
<td>0.954</td>
<td>0.066</td>
</tr>
<tr>
<td>Number of Perpetrators Injured</td>
<td>0.009</td>
<td>0.083</td>
<td>1.866</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Perpetrators</td>
<td>2.119</td>
<td>13.452</td>
<td>8.281</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p <.001  **p < .05  + p <.10

a Multi-level linear regression, controlling for region, ideology and decade. Coefficient for the PCA predictor variable is displayed.  
b Multi-level logistic regression, controlling for region, ideology and decade. Coefficient for the PCA predictor variable is displayed.  
ICC = Intraclass correlation coefficient

At the multivariate level, separate random-intercept multilevel models that controlled for decade, region, and ideology were run for each of the outcome variables (using a group mean centered version of the PCA scale) to account for the direction of model predictions and the hierarchical nature of the data.
Each multi-level model was tested for the inclusion of the regression coefficient to verify if using a random-effects model was justified. When controlling for region, ideology, and decade, the multi-level linear regression results for the five higher-order variables available in Table 10 indicate that none are significant at the multivariate level (p > .05), suggesting that PCA scores are not related to the number of perpetrators involved in terrorist events, nor with the number of victim and perpetrator fatalities and injuries. Multi-level logistic regression models run for each of the dichotomous variables (success, suicide, and hostages/kidnapping) that controlled for region, ideology, and decade indicate that while all three variables are significant at the bivariate level, only successful attack (b = 2.334, OR 1.014, p < .001) and hostages/kidnapping (b = -0.047, OR = 0.954, p < .001) remain significant at the multivariate level. The results indicate that terrorist events with higher levels of the PCA had a slightly lesser likelihood of employing hostage and kidnapping tactics, and a slightly greater likelihood of success.

Table 11: Multinomial logit model regression results – centered PCA scores predicting outcome variables

<table>
<thead>
<tr>
<th>Attack Type: a</th>
<th>b</th>
<th>SE</th>
<th>OR</th>
<th>Target Type: a</th>
<th>b</th>
<th>SE</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Reference: Bombing/Explosion)</td>
<td>(Reference: Private Citizen)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assassination</td>
<td>0.010*</td>
<td>0.015</td>
<td>1.010</td>
<td>Business</td>
<td>-0.021*</td>
<td>0.002</td>
<td>0.979</td>
</tr>
<tr>
<td>Armed Assault</td>
<td>0.015*</td>
<td>0.001</td>
<td>1.015</td>
<td>Government (General)</td>
<td>-0.000</td>
<td>0.002</td>
<td>1.000</td>
</tr>
<tr>
<td>Hostage Taking (Barricade)</td>
<td>-0.021*</td>
<td>0.005</td>
<td>0.979</td>
<td>Police</td>
<td>0.001</td>
<td>0.002</td>
<td>1.094</td>
</tr>
<tr>
<td>Hostage Taking (Kidnapping)</td>
<td>0.001</td>
<td>0.002</td>
<td>1.001</td>
<td>Military</td>
<td>-0.010**</td>
<td>0.003</td>
<td>0.990</td>
</tr>
<tr>
<td>Facility/Infrastructure Attack</td>
<td>-0.009*</td>
<td>0.002</td>
<td>0.991</td>
<td>Airports and Airlines</td>
<td>0.007</td>
<td>0.006</td>
<td>1.007</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>0.034*</td>
<td>0.003</td>
<td>1.034</td>
<td>Government (Diplomatic)</td>
<td>0.018**</td>
<td>0.004</td>
<td>1.009</td>
</tr>
<tr>
<td>Weapon Type: a</td>
<td>Educational Institutions</td>
<td>-0.026*</td>
<td>0.004</td>
<td>0.974</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Reference: Bombs/TNT)</td>
<td>Journalists and Media</td>
<td>Other</td>
<td>0.009**</td>
<td>0.003</td>
<td>1.009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firearms</td>
<td>0.011</td>
<td>0.007</td>
<td>1.011</td>
<td>Religious Figures / Locales</td>
<td>0.011**</td>
<td>0.005</td>
<td>1.011</td>
</tr>
<tr>
<td>Incendiary</td>
<td>-0.013</td>
<td>0.014</td>
<td>0.987</td>
<td>Telecommunication</td>
<td>-0.027*</td>
<td>0.005</td>
<td>0.973</td>
</tr>
<tr>
<td>Melee</td>
<td>0.415**</td>
<td>0.016</td>
<td>1.042</td>
<td>Other Terrorist Groups</td>
<td>-0.021**</td>
<td>0.007</td>
<td>0.979</td>
</tr>
<tr>
<td>Other</td>
<td>0.020</td>
<td>0.014</td>
<td>1.020</td>
<td>Non-Aviation Transport.</td>
<td>-0.008*</td>
<td>0.002</td>
<td>0.992</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unknown</td>
<td>-0.009</td>
<td>0.007</td>
<td>0.992</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Utilities</td>
<td>-0.030*</td>
<td>0.002</td>
<td>0.971</td>
</tr>
</tbody>
</table>

* p <.001  ** p < .01  + p <.10
a Multinominal logit, controlling for region, ideology and decade. Coefficient for the PCA predictor variable is displayed.

Results are available in Table 11 for two-level multinomial logit models that were run for the three multi-categorical nominal variables (attack type, target type and weapon type), controlling for region, ideology, and decade. For attack type, using ‘bombing/explosions’ as the reference category, assassination (b = 0.010, OR = 1.010, p < .001), armed assault (b= 0.015, OR = 1.015, p < .001), hostage taking (barricade) (b = -0.021, OR = 0.979, p < .001), facility/infrastructure attack (b = -0.009, OR = 0.991, p < .001), and
other/unknown \( (b = 0.034, \text{OR} = 1.034, p < .001) \) are significant. This suggests that terrorist events within the study sample with higher PCA scores were more likely to use assassination, armed assault and ‘other’ attack types (aside from the other categories listed) than bombs, and less likely to use barricading and facility/infrastructure attacks than bombs. Using ‘private citizens and property’ as the reference category for target type, businesses \( (b = -0.021, \text{OR} = 0.979, p < .001) \), military \( (b = -0.010, \text{OR} = 0.990, p < .05) \), diplomatic government targets \( (b = 0.018, \text{OR} = 1.009, p < .05) \), educational institutions \( (b = 0.018, \text{OR} = 1.018, p < .001) \), journalists and media \( (b = -0.026, \text{OR} = 0.974, p < .001) \), other targets \( (b = 0.009, \text{OR} = 1.009, p < .05) \), religious figures and locales \( (b = 0.011, \text{OR} = 1.011, p < .05) \), telecommunication \( (b = -0.027, \text{OR} = 0.973, p < .001) \), other terrorist groups \( (b = -0.021, \text{OR} = 0.979, p < .05) \), non-aviation transportation \( (b = -0.008, \text{OR} = 0.992, p < .001) \), and utilities \( (b = -0.030, \text{OR} = 0.971, p < .001) \) are significant. This indicates that terrorist events with higher PCA scores were more likely to target private citizens and property than businesses, military, journalists/media, telecommunication, other terrorist groups, non-aviation transportation, and utilities, and were more likely to target diplomatic government targets, ‘other’ targets than those listed, and religious figures/locales than private citizens and property. Lastly, for weapon type, higher levels of the PCA predicted a preference for melee weapons \( (b = 0.415, \text{OR} = 1.042, p < .05) \) over bombs, explosives, or dynamite.

**Discussion**

This study was conducted to examine the relationship between differing levels of charismatic authority and their strategic and operational choices within a sample of terrorist organizations. Although more research is required before any of the current findings can be treated as authoritative, the results reveal several discernable operational trends. Findings at the bivariate level suggest that terrorist groups with a higher magnitude of charismatic authority committed more lethal attacks. However, this finding is not supported at the multivariate level when controlling for region, decade, and ideology. Multivariate findings on attack and weapon types indicate that the terrorist groups within the sample with higher levels of charismatic authority were more likely to employ melee weapons, use assassination tactics, engage in armed assault, and use ‘other’ attack types, over bombs and explosives. However, in regard to weapon choice, groups with higher levels of charismatic authority were more likely to employ bombs and explosives over barricade incidents and facility/infrastructure attacks. In terms of target preferences, results indicate that groups with higher levels of charismatic authority were
more likely to attack diplomatic targets, educational institutions, ‘other’
targets, and religious figures/locales than private citizens and property, but
were more likely to target private citizens and property rather than business,
military targets, journalists and media, telecommunications, other terrorist
groups, non-air aviation transportation, and utilities. However, most of the
significant multivariate findings are limited in their predictive utility. The
likelihood of all of these relationships are relatively low (< 5%), which
suggests that they are not particularly helpful in authoritatively anticipating
the strategic behaviors of charismatically-led terrorist groups.

Despite the seminal nature of the current study, there are a number of
conclusions that may help inform future empirical analyses of charismatic
terrorist leadership. To begin, findings at both the bivariate and multivariate
levels indicate that highly-charismatic groups within the sample tended to be
more successful in their attacks. This suggests that the presence of strong
charismatic authority may have some form of operational or strategic benefit
to terrorist groups. The broader literature on leadership in both peaceful and
violent movements note that effective leadership is a crucial component to
organizational success. However, how charismatic leaders influence the
success or failure of terrorist attacks cannot be determined definitively with
the current data.

While speculative, one way in which charismatic terrorist leaders may
contribute to organizational success is by promoting group cohesion and self-
identification with the terrorist organization and its cause. This observation
is supported by study results that indicate a preference for “face-to-face”
weapon and attack types (e.g., assassination, armed assault, and melee
weapons) over the use of bombs and explosives within charismatically-led
terrorist groups. Research on interpersonal violence and conflict has shown
that people have an innate resistance to killing, although this can be broken

42 Bass, Bernard and Ruth Bass, The Bass Handbook of Leadership: Theory, Research,
and Managerial Applications (New York: The Free Press, 2009), 11; Bernard Bass, Bruce
Avolio, Dong Jung, and Yair Berson, “Predicting Unit Performance by Assessing
Transformational and Transactional Leadership,” Journal of applied Psychology 88: 2
(2003): 209-209; Dawson, “The Study of New Religious Movements,” 14; McAdam,
(Chicago: University of Chicago Press, 1982), 47.
Leadership: A Theoretical Extension, a Case Study, and Implications for Research,”
44 Grossman, David, On Killing: The Psychological Cost of Learning to Kill in War and
down through conditioning or moral disengagement or the use of impersonal weaponry such as guns and drone strikes. For the average person, then, killing someone at close proximity or with his or her bare hands requires a great deal of psychological conditioning and unwavering commitment to a leader, group, or cause. The establishment of a strong charismatic bond may strengthen both individual commitment and group cohesion as followers conflate their needs and identity with that of the leader and his or her cause. This, in turn, may help followers overcome social and psychological barriers to close-hand interpersonal violence. This is perhaps best exemplified by ISIS’s commonplace use of knives and swords to behead those they deem to be infidels. The preference for hand-to-hand attack methods therefore supports the idea that strong forms of charismatic authority within the study sample may play an important role in catalysing group cohesion and the intense socialization required to overcome the aversion to kill. If this finding is substantiated in future research, it has the potential to help inform the ongoing debate over the effectiveness of leadership decapitation.

There are evident operational benefits for terrorist groups that function with high levels of cohesion: A heightened sense of purpose, a strong support system, resilience against outside infiltration, etc. But there are also weaknesses. If charismatic terrorist leaders are indeed central to fostering group cohesion and identity, leadership decapitation strategies may prove more effective at disrupting these types of terrorist organizations. This may also help explain why leadership decapitation is effective against some groups, but not others. Needless to say, this supposition requires more research in order to be treated as conclusive. However, given the importance of highly-charismatic leaders to multiple aspects of their movements, it is surprising that none of the literature for or against the effectiveness of

---

47 Dawson, “Crises of Charismatic Legitimacy,” 84.
leadership decapitation strategies has adequately integrated the social-scientific concept of charismatic authority into their analyses.\textsuperscript{50}

The appearance of success is a crucial component in charismatic leaders’ ability to maintain the charismatic bond with their followers. Since the basis for their authority lies in the perceptions of their followers, charismatic leaders must continually prove their legitimacy through successful endeavours or risk losing their authority.\textsuperscript{51} It is therefore unsurprising that charismatic groups within the sample were more likely to be successful, given that the vast majority of the examined groups consist of long-lived terrorist organizations. In other words, a certain measure of success was required for the highly-charismatic groups within the sample to persist, or followers would have abandoned the leaders’ causes. This, however, suggests that limiting and minimizing opportunities for charismatically-led terrorist groups to claim “successes” may be pivotal in delegitimizing their leadership by rendering them impotent in the eyes of their followers.\textsuperscript{52} In particular, delegitimizing charismatic leaders may have a significant role in hampering their ability to radicalize potential members.

As the existing literature on terrorist radicalization indicates, the appearance of legitimacy is an important factor in the ability of a leader to attract new recruits.\textsuperscript{53} Simply killing or incarcerating a charismatic terrorist leader may only serve to enhance or even routinize their charismatic authority by entrenching them as symbols or martyrs to the cause.\textsuperscript{54} Similarly, government responses that aim for swift apprehension of culprits and that publically downplay the magnitude of terror attacks may be beneficial to building resilience among civilians, but ignore the benefits accrued by charismatic-leaders who are seen as capable of executing successful terrorist attacks. Therefore, government responses to terrorism could benefit from efforts to mitigate and control perceptions of success among terrorist groups and their larger support networks. Detection and denial will always remain

\textsuperscript{50} Hofmann and Dawson, “The Neglected Role of Charismatic Authority,” 362.
the primary tools in preventing terrorist successes. However, if the appearance of success is indeed a cornerstone in maintaining charismatic authority within terrorist groups, then nuanced and carefully tested counter-terrorism and media strategies that attack perceptions of success may have an effect in hampering efforts to recruit new members and the ability of charismatic leaders to maintain authority over their followers.

Study findings are also supportive of the existence of separate roles for charismatic and operational leaders within terrorist groups. The limited influence of charismatic authority on attack outcomes (e.g., the number of perpetrators, fatalities, and wounded) and the limited predictive utility of the findings on strategic choices may indicate that operational decisions within terrorist groups are made separately from concerns involving charismatic authority. In simpler terms, research results suggest that charismatic leaders may be more concerned with maintaining their authority than worrying about the small details involved in planning and executing terrorist attacks. In social movement theory, this division of movement leadership has been analyzed and substantiated with empirical case studies. In the particular case of contentious social movements, two different types of leadership have been identified: Task oriented (operational) leaders, who focus on assembling resources and executing group action, and people-oriented (charismatic) leaders, who focus on evoking and framing emotional responses within the group. Interestingly, theorists note that conflict and imbalance between task and people-oriented leaders is a significant factor in the failure of contentious social movements. If a similar division in leadership roles is common among terrorist groups, as hinted at by the current research findings, then further empirical research aimed at differentiating the exact roles and breadth of the influence of charismatic and operational terrorist leaders is needed. This may lead to the identification of potential sources of tension between operational and charismatic leaders that may help in crafting non-coercive counter-terrorism initiatives aimed at delegitimizing terrorist leadership or destabilizing larger terrorist networks.

Study Limitations

Research results should be interpreted with a number of limitations in mind. Study findings only begin to shed light on a small portion of the complex realities involved in charismatic relationships within terrorist groups. Study results cannot account for any meso or micro level social processes that may influence the strategic and ideological direction of groups. The data available in the GTD are insufficient for measuring group-level motivations, relationships and social realities. This necessitates employing the PCA indicators in qualitative research that can examine these group-level social processes in more depth, or undertaking quantitative survey research among active or incarcerated terrorists and radicals that inquires about charismatic relationships.58

An additional study limitation is the inability to measure the influence of multiple levels of leadership and authority on operational tactics and results of attack incidents. Leadership manifests at many different levels within both violent and non-violent social movements.59 This research focuses exclusively upon charismatic organizational-level terrorist leaders—the top leaders—and therefore fails to account for the effect of mid-level (e.g., lieutenants, network brokers, seconds-in-command), cell-level, and grassroots leaders. Future research designs that can account for the effects of multiple levels of leadership are needed to flesh out the full range of the influence of charismatic authority in terrorist groups. With proper data, social network analyses can be extremely beneficial in understanding the multi-level complexity involved in the construction and maintenance of charismatic authority and leadership within terrorist groups.

A number of study limitations are also the result of the coding process used to determine the PCA scores for the study sample. Much like the GTD, the coding process overwhelmingly relied on secondary source data. As a result, coding was done from an “outsider” perspective, and was limited in its ability to gain a truly deep understanding of the processes of charismatic authority within the sample groups. The coding process was also hampered by barriers involving language and access to information. This led to certain groups being discarded entirely from the sample, which means that true probability sampling is impossible. As a result, generalizability of research findings

beyond the study sample is impossible. Lastly, since there was only a single coder for the PCA scores for each group within the sample, there was admittedly an element of subjectivity in the coding of the predictor variable. Methods involving rigorous gathering and triangulation of data, along with clearly outlined coding protocols that were consistently applied across each group were employed to mitigate elements of subjective coding as much as possible. However, despite efforts to limit elements of subjectivity during the coding process, it is impossible to completely eliminate it from the analysis. This limitation should be kept in mind when interpreting the results.

The unique security situation surrounding terrorism studies makes gaining access to primary source data difficult at times. As a direct result, databases like the GTD rely almost exclusively on secondary source data, which limits information to the details known by the public. The inability to comprehensively measure the “true” number and characteristics of terrorist attacks can lead to unidentifiable statistical deformations that may cause incorrect or incomplete findings. This problem is further exacerbated by the study’s use of cross-sectional data to examine a dynamic phenomenon like charismatic authority. Complex social phenomena like leadership and authority are ever changing relationships that are renewed and recreated through repeated interactions between leaders and followers. This raises an issue with some of the longer-lived terrorist organizations in the sample, whose ideology, actions, and leadership can change in a variety of different ways throughout their life course. An inclusion criteria limiting attack incidents to those that overlapped with the active time-period of the “major” charismatic leader used for coding was originally considered during sampling, but was ultimately decided against. A charismatic leader’s “presence” can be routinized and persist after his or her death or incapacitation, much like how Osama Bin Laden’s charisma persists in al-Qaeda inspired terrorism. However, the fashion in which charismatic authority routinizes is not universal across all terrorist groups, and the use of a cross-sectional predictor variable in this study is admittedly problematic. Keeping this limitation in mind, longitudinal statistical analyses of long-lived terrorist groups which correlate strategic and behavioral trends with the rise and fall of charismatic leaders across the organizational lifespan may prove to be useful to future quantitative research on charismatic authority in terrorist groups.

Conclusion

The study of how charismatic forms of authority influence the strategic and operational dynamics in terrorist groups is in its infancy, and many aspects of
charismatic terrorist leadership remain unexamined or under-developed. For example, how do mid or lower level leaders influence the strategic operation of terrorist groups? Are there other forms of charismatic authority than those examined in the study, such as the attribution and development of the charismatic bond through the Internet and social media? How does charismatic authority actively contribute to the radicalization and recruitment of terrorists? Does the coercive removal of charismatic leaders have a greater contribution to the disruption or dissolution of their groups? Is there an effective way to delegitimize charismatic forms of leadership within terrorist groups? Findings from the current study are promising, but only scratch the surface of a highly complex social relationship. Knowledge of how charismatic terrorist leaders recruit, radicalize, and manage their organizations may prove to be pivotal in crafting effective counter-terrorism strategies aimed at disrupting or dissolving these types of groups. But, this will require much more empirical research that employs a variety of different methodological approaches before we can gain a truly holistic understanding of the nuances involved in the establishment, maintenance, and ultimate demise of charismatic terrorist leadership.