

On the Other Side of the COIN: The Tradeoff and Gamble of Leadership Decapitation

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The Bush 43, Obama, and Trump administrations cover the range of United States (U.S.) foreign and security policy. Although extremely disparate ideologically, all three administrations adopted the policy of using targeted killings of foreign militant leaders to disrupt and destabilize adversarial organizations. Successive U.S. administrations applied this policy based simply on the assumption that leadership decapitation of terrorist and insurgent organizations works as an effective counter-terrorism and counter-insurgency strategy.¹ While lauding decapitations in the service of justice, the U.S. also consistently deems the killing of leaders like Abu Musab al-Zarqawi, Usama bin Laden, Abu Bakr al-Baghdadi, and Qasem Soleimani strategic victories.²

Over the last decade, researchers have aimed to decipher the lasting effects of the leadership-decapitation strategy, as well as identify attributes that make militant organizations more or less resilient to decapitation's destabilizing shocks.³ Extant research has produced contradictory results on the efficacy of leadership decapitation, as some studies find it harms militant campaigns,⁴ whereas others claim the opposite.⁵ We view this debate within the literature as one of utmost importance, considering few other facets of contemporary political conflict matter as much as the question of the leadership-decapitation strategy's effectiveness. It is a matter of life and death for not only potential targets or those carrying out high-risk assassination, rendition or apprehension operations, but also for the supporters and members of militant organizations and the constituents of target states. As the last 15 years has seen terrorist attacks and other acts of political violence continue to increase,⁶ we find it essential to gauge whether the leadership-decapitation strategy has strengthened militant

¹ Joshua Keating, "Trump Puts the CIA Back in the Targeted-Killing Business," *Slate* (14 March 2017).

² Masters 2013. Jordan 2019. Price 2019. See also Kathy Gilsinan and Mike Giglio, "The Soleimani Assassination Is America's Most Consequential Strike This Century," *The Atlantic* (3 January 2020).

³ This study focuses on leadership decapitation and not targeted killings broadly.

⁴ Byman 2006; Jaeger & Paserman 2009; Johnston 2012; Price 2012; 2019; Tiernay 2015.

⁵ Hafez & Hatfield 2006; Jordan 2009; 2014.

⁶ See the Global Terrorism Database—accessible at www.start.umd.edu/gtd.

organizations or helped curbed what otherwise would have amounted to even greater proliferation of non-state political violence.

The topic of leadership decapitation represents a clear instance of the need for empirical inquiry to inform real-world policy. We contend that the discrepancies between previous studies on leadership decapitation stem from the analysis of different datasets, sample size (n), dependent variables, units-of-analysis, varying degrees of methodological soundness, and ultimately the absence of an effort to unify discrepancies and pursue a consistent empirical approach.⁷ In this research note, we aim to advance the scientific understanding of the leadership-decapitation strategy in a number of steps.

First, we review the literature on the effects of leadership decapitation on militant organizational *survival* and *success* and offer a novel working theory that could itself explain some of the inconsistencies between existing findings. In short, the effects of leadership decapitation depend largely on the specific dependent variable in question and the decapitation type: *assassination*, *arrest-and-incarceration*, or *arrest-and-execution*. Second, we detail our research design that incorporates four unique datasets, including two not previously analyzed quantitatively. Third, we run comparative large- n empirical analyses on each dataset, testing not only leadership decapitation generally but also broken down by the three typologies. The analyses indicate that leadership decapitation by way of outright-killing or executing the leader diminish the strategic capability of organizations to achieve their “outcome goals.”⁸ Yet, the execution of militant leaders, as well as failed-decapitation attempts, generate respective martyrdom and immortalization narratives that extend the life spans of targeted organizations. We term this counter-insurgency (COIN)/counter-terrorism (CT) dilemma, the

⁷ Davenport 2007 makes a similar assessment of the early development of repression studies.

⁸ “Outcome goals” refer to the chief political ends organizations pursue and they signify the organization’s purpose for its persistence. See Abrahms 2006; Cronin 2009; Acosta 2019.

“Francis Marion Effect”—meaning, leadership decapitation works quite well, *when it works*, but attempting to eliminate a militant leader and failing to do so can result in disastrous COIN/CT consequences. Fourth, we conclude by summarizing the effects of different decapitation typologies as they relate to policy.

The Effects of Leadership Decapitation

Table 1

Study	DV	Effect of Leadership Decapitation
Milton & Price (2020)	duration	only decreases the lifespans of poorly networked organizations
Ryckman (2020)	outcome	fosters the organization’s inactivity, but not its defeat
Jordan (2009; 2019)	duration	increases the organization’s life span
Price (2012; 2019)	duration	decreases the organization’s lifespan
Abrahms & Mierau (2017)	intensity	increases the organization’s indiscriminate violence
Carson (2017)	intensity	increases the organization’s violence
Tiernay (2015)	duration	decreases the organization’s lifespan
Phillips (2015)	intensity	temporarily decreases the organization’s violence but increases it in the long term
Johnston (2012)	outcome; intensity	decreases the organization’s likelihood of victory and reduces its level of violence
Mannes (2008)	intensity	has no statistically significant effect either way

Conflict studies tend to emphasize five core dependent variables: (1) onset, (2) intensity, (3) duration, (4) outcome, and (5) post-conflict development.⁹ With the exception of onset, leadership decapitation likely effects all of the above and perhaps in unique ways. Most existing research analyzes the effects of leadership decapitation on conflict intensity,¹⁰ several studies analyze duration,¹¹ and a couple analyze outcomes.¹² Unfortunately, as Table 1 depicts, most existing studies on leadership decapitation assess the strategy’s “effectiveness” with respect to one conflict dependent variable without giving attention to the other dimensions of conflict that decapitation

⁹ Acosta 2019.

¹⁰ Kaplan et al. 2005; Byman 2006; Hafez & Hatfield 2008; Mannes 2008; Jaeger & Paserman 2009; Phillips 2015a; Abrahms & Mierau 2017; Carson 2017.

¹¹ Jordan 2009; 2014; Price 2012; Tiernay 2015.

¹² Johnston 2012; Ryckman 2020.

may also affect.¹³ Eliminating a militant organization outright marks a very different aim than simply hobbling it to the point of tactical or strategic ineffectiveness.

A Tradeoff, a Gamble, and/or a Magic Bullet for Countering Political Violence?

Whereas conflict studies investigate five dimensions of conflict, militant organizations across time and contexts focus on and pursue two common aims: (1) to survive and (2) to achieve the goals that signify their *raison d'être*.¹⁴ Considering the general asymmetry of insurgency, rebellion, terrorism, and other forms of political violence conducted by non-state actors, organizational survival regularly proves easier than outcome-goal achievement.¹⁵ Accordingly, many militant organizations focus on survival.¹⁶ Previous empirical work shows that the adoption of specific political violence tactics can even promote organizational survival at the cost of advancing outcome goals.¹⁷ We theorize that COIN/CT tactics, and particularly leadership decapitation, can yield similar tradeoffs.

Influential theorists of modern political violence commonly outline the symbiotic relationship between a militant organization's leadership and its fighters and related constituency.¹⁸ Crucially, leaders shape organizational pathways because they "define goals and advance strategies."¹⁹ Where the constituents and members of militant organizations may hold more deeply embedded ideological preferences for violence, leaders can temper such preferences with strategic foresight.²⁰

¹³ One exception that studies decapitation's effects on insurgency outcomes and intensity is Johnston 2012.

¹⁴ Crenshaw 1988; Acosta 2016.

¹⁵ Acosta 2014a.

¹⁶ Cronin 2009; Boot 2013.

¹⁷ Gunaratna & Oreg 2010; Acosta 2014a.

¹⁸ Clausewitz [1832]1984; Lenin [1902]1969; Mao 1961.

¹⁹ Nepstad & Bob 2006, 1. See also Waltz 1959; Horowitz, Stam & Ellis 2015.

²⁰ Acosta 2014b. See also Cohen 2002.

As such, leadership decapitation can greatly diminish the strategic capacity and guidance of organizations for a number of reasons. Leaders function as internal organizational governors who define selective incentives for membership and disperse rewards and goods to those who fulfill organizational demands.²¹ Wilner recognizes that “[eliminating its leader] leaves an organization in general disarray—replacement takes time and command and control mechanisms are weakened as a result.”²² To strategically pursue outcome goals, organizations necessarily focus constituents on a core aim,²³ and the loss of a leader can leave organizations internally fractured over the nature of that outcome goal.²⁴ In the same vein, disputes over succession may lead to damaging or fatal organizational splintering.²⁵ Militant organizations with leadership deficiencies frequently turn to tactics that satisfy the process aims of lower-level operatives,²⁶ yet simultaneously make the organization less likely to achieve its outcome goal or “win.”²⁷ In other words, leadership decapitation does not reduce the organization’s quantity of violence, but rather “[erodes its] quality of violence.”²⁸ Individual leaders might also represent the organization’s sole connection to external support network.²⁹ All such possibilities make organizations that experience decapitation less likely to win the conflicts they fight.

H_{1A}: (Striking Down Prospects for Success) *By diminishing organizational strategic capacity, leadership decapitation decreases the likelihood of militant organizations achieving their outcome goals.*

²¹ Olson 1965; Wilson 1973.

²² Wilner 2010, 321.

²³ Gamsom 1975; Steedly & Foley 1979.

²⁴ Nepstad & Bob 2006.

²⁵ See Wilner 2010; Long 2014. For example, after Iran executed its leader, Abdolmalek Rigi, Jundallah fell apart and splintered into various smaller organizations. See Zambelis 2014. Still, in contrast, some argue that the diffusion of an organizational structure can lead to a more durable organizational makeup. See Arquilla & Ronfeldt 2001; Gunaratna & Oreg 2010.

²⁶ Abrahms & Potter 2015; Abrahms & Mierau 2017.

²⁷ Abrahms 2013; Abrahms & Gottfried 2016.

²⁸ Abrahms & Mierau 2017, 845.

²⁹ Nepstad & Bob 2006.

Nevertheless, leadership decapitation's *tradeoff* stems from the organization's members and constituents reacting to an outsider eliminating their leader, which can make him or her an eternal martyr for the collective cause.³⁰ Religious and secular organizations alike glorify martyrdom for their causes and similarly encourage leader worship.³¹ The combination of the two—*worship of the leader-martyr*—can produce extraordinary mobilization effects.³² Constituents often join or support organizations as a result of affinity for a specific leader's aims, charisma, and/or lineage,³³ or merely the collective memory of his deeds.³⁴ A leader's death by an outsider can spawn a sense of urgency and dedication to the collective cause³⁵—the leader's "ultimate sacrifice" thereby acts as a recruitment call for new followers.³⁶ Centrally, martyrdom narratives "[imbue] meaning to the [leader's] killing—as a tragic but predictable, even necessary, step in the realization of the [collective's end goal]."³⁷

Akin to the martyrdom tradeoff, an inherent *gamble* poses a risk for employers of the leadership-decapitation strategy: *failed-decapitation attempts*. Like martyrdom, an unsuccessful effort to kill or capture a leader can generate an immortalization narrative, rejuvenate the standing of an unpopular leader, or even fuel the rise of an otherwise minor political entity.³⁸ Militant leaders often endure extensive *internal* criticism in addition to the *external* conflicts they fight.³⁹ Reflecting the two unique audiences, failed-decapitation strikes have two significant effects. When a state adversary

³⁰ Norton 1987.

³¹ Reuter 2004.

³² Peterson 1997; Cook 2007.

³³ Weber 1947.

³⁴ Norton 1987.

³⁵ For example, local populations in Pakistan and Yemen often rally around militant organizations after U.S. assassination strikes (Mazzetti 2014).

³⁶ Peterson 1997; Byman 2006; Cook 2007.

³⁷ Bob & Nepstad 2007, 1380.

³⁸ Jones & Olken 2009; McGeough 2009; Yammarino et al. 2013.

³⁹ Acosta 2014b; Prorok 2016.

‘takes a shot’ and misses, a narrative of divine providence attaches itself and sticks to the aura of the leader. The survivor benefits from ‘risking’ his or her life for the cause while also reinforcing the adversarial state’s apparent ‘impotence.’ In many instances, for following decades, such ‘invincible’ or *immortalized* leaders spend their survivor currency generously—rallying the public and ever bolstering their credibility.⁴⁰

H_{2A}: (Martyrdom, Immortalization, and Duration) *By producing respective martyrdom and immortalization narratives that spur greater constituent support and mobilization, leadership decapitation and failed-decapitation attempts increase the life spans of targeted militant organizations.*

Types of Leadership Decapitation: Killing, Capturing, Executing

Various studies investigate facets of decapitation typologies—kill, capture, execute.⁴¹ Yet, to date, no study analyzes the effects of all three systemically. Given their potentially unique effects, we hypothesize about the typologies.

We review a rich body of literature traversing sociology, criminology, and political science that underscores that incarceration does not stop leaders from communicating with their organizational members or constituents.⁴² Cronin contends that leaders often openly “continue to communicate with their followers from prison.”⁴³ Even if cut off from the organization in terms of two-way communication, the leader still might inspire or instruct through the media, lawyers, family members, other visitors/couriers, released prisoners, or even prison workers bribed, blackmailed, or exploited or extorted in other fashions. Skarbek recognizes that leaders of illicit organizations “use a variety of codes, ciphers, hidden messages, and smuggled notes to communicate” in and out of

⁴⁰ Coltman 2003; Iqbal & Zorn 2006. See also Ronen Bergman, “How Arafat Eluded Israel’s Assassination Machine.” *The New York Times Magazine* (23 January 2018).

⁴¹ Hosmer 2001; Mannes 2008; Cronin 2009; Jordan 2009; 2019; Staeheli 2010; Johnston 2012.

⁴² Nashif 2008; Gambetta 2009; Skarbek 2011; Van Der Laan 2012; Lessing 2016.

⁴³ Cronin 2009, 17.

prison.⁴⁴ Incarcerating leaders also leaves open the possibility that “the legal system [will] free [militant leaders] on technicalities” or that the organization will conduct hostage-taking operations in the effort to free the leader.⁴⁵ Prison can even hone a leader’s skills,⁴⁶ or radicalize them further.⁴⁷ To account for the insights from this literature, we modify the hypotheses in relation to decapitation typologies.

H_{1B}: (The Muted Effects of Arrest on Success) *Without diminishing organizational capacity to the same level, arresting a leader decreases the likelihood of organizations achieving their outcome goals to a lesser degree than assassinating or executing a leader.*

H_{2B}: (The Muted Effects of Arrest on Duration) *Without spurring the martyrdom effect, arresting a leader increases the life span of targeted militant organizations to a lesser degree than assassinating or executing a leader.*

Datasets and Research Design

Beyond the definitional inconsistencies of “effectiveness” and analyses of different dependent variables, the lack of scholarly consensus on the effects of leadership decapitation also derives from varying degrees of methodological soundness and quality of datasets analyzed. Selection issues have traditionally plagued numerous fields of comparative research.⁴⁸ With the study of leadership decapitation, many studies attempt to draw general inferences from one or two selective case studies.⁴⁹ While quite thorough and insightful, Cronin relies on seven highly selective case studies to make general claims about the effects of leadership decapitation.⁵⁰ Similarly, many

⁴⁴ Skarbek 2011, 713.

⁴⁵ See Cronin 2009, 17; Varon 2004. Organizations have taken hostages and exchanged them for leaders in numerous cases, including Harakat ul-Ansar’s leader Maulana Masood Azhar (who later went on to form Jaish-e Muhammad).

⁴⁶ Gambetta 2009; Yehoshua 2014.

⁴⁷ Ashour 2008.

⁴⁸ Geddes 1990; Hug 2003.

⁴⁹ Byman 2006; Jordan 2014; Long 2014.

⁵⁰ See Cronin 2009. The seven organization cases (and capturing states) include: Sendero Luminoso (Peru), Partiya Karkerên Kurdistan or PKK (Turkey), the Real Irish Republican Army (United Kingdom), Abu Sayyaf Group (the Philippines), Aum Shinrikyo (Japan), Special Purpose Islamic Regiment (Russia), and various Palestinian organizations (Israel).

quantitative studies only analyze the effects of Israel’s decapitation strikes on Palestinian organizations to make generalizations.⁵¹ Other studies focus on specific types of cases (e.g. “jihadi” organizations)⁵² or evaluate restricted timeframes due to missing data.⁵³ Jordan uses basic calculations of percentages to make grand claims about decapitation’s ineffectiveness.⁵⁴

Due to the contradictory findings within the literature, we contend that large-*n* quantitative analyses offer the most practical approach for producing generalizable findings. Extant large-*n* quantitative studies emphasize the effects of leadership decapitation on organizational duration⁵⁵ and success.⁵⁶ Because of the literature’s inconsistencies, we analyze four distinct datasets in order to test variations in the dependent variables of *duration* and *outcome*. Our analyses retest Price⁵⁷ and Johnston’s respective datasets on leadership decapitation,⁵⁸ as well as Boot’s *Invisible Armies Database* (IAD)⁵⁹ and Acosta’s *Revolutionary and Militant Organizations Dataset* (REVMOD)⁶⁰—both of which have yet to be analyzed in terms of leadership decapitation.⁶¹ Each dataset includes organizations that have and have not experienced leadership decapitation, and each dataset includes samples that vary on the dependent variables. Table 2 displays the datasets’ differences in sample size, organizational scope, data type, and timeframe.

⁵¹ Kaplan et al. 2005; Hafez & Hatfield 2006; Jaeger & Paserman 2009. Abrahms & Mierau 2015 study the Israeli-Palestinian case in addition to U.S. decapitation strikes on organizations in Afghanistan and Pakistan.

⁵² Carson 2017.

⁵³ Johnston 2012; Carson 2017.

⁵⁴ See Jordan 2009; 2014; 2019. Problematically, and as others articulate (Price 2019), Jordan does not make her source material or replication files available publicly.

⁵⁵ See Price 2012; 2019. Relatedly, Tiernay 2015 looks at the effects of all leadership turnovers on civil war termination.

⁵⁶ See Johnston 2012; Ryckman 2020. Large-*n* studies likewise analyze the effects of leadership decapitation on conflict intensity. See Mannes 2008; Phillips 2015a.

⁵⁷ Price 2012; 2019.

⁵⁸ Johnston 2012.

⁵⁹ Boot 2013.

⁶⁰ Acosta 2019.

⁶¹ Moreover, researchers have yet to test the IAD database quantitatively in any fashion whatsoever.

Table 2

Dataset	<i>n</i>	Organizational Scope	Data Type	Timeframe
Price ⁶²	207	terrorist	Static	1970-2008
Johnston	130	insurgent, rebel, guerrilla	Static	1803-2006 ⁶³
IAD	442	insurgent, rebel, terrorist, guerrilla	Static	1776-2012
REVMOD	5092	insurgent, rebel, terrorist, guerrilla, vigilante, militant party	Dynamic	1940-2014

Dependent Variables

To investigate the effects of leadership decapitation on the distinct militant aims of survival and success, we run a series of competing-risks regressions on all four datasets. Subsequently, we estimate time-series analyses of REVMOD, as its dynamic (annual) data in the formation of an organization-year unit-of-analysis facilitates further empirical tests.

In the initial competing-risks models, we *compete* four variables against one another in sequence: (1) DURATION OF DEFUNCT militant organizations, (2) ONGOING organizations that have yet to achieve success but remain active,⁶⁴ (3) organizations that ACHIEVED LIMITED SUCCESS, and (4) organizations that ACHIEVED COMPLETE SUCCESS.⁶⁵ Next, we review the varying operationalizations of the measures. The datasets' respective measurements of organizational duration generally align. REVMOD codes *duration onset* as either the date of an official declaration of an organization's establishment or the date of its first confirmed act of political violence.⁶⁶ REVMOD codes *end of duration* for defunct organizations as the date of elimination by force or an officially declared date of dissolution. Similarly, the Price dataset "use[s] the date of [the organization's] first attack" for onset and considers an organization defunct "if two years passed

⁶² Price uses this dataset for both his 2012 and 2019 works.

⁶³ Johnston 2012 limits his quantitative analysis to the timeframe of 1975 to 2003.

⁶⁴ To save space, we report the results of draws and ongoing conflicts in Table A in the Appendix.

⁶⁵ We follow recent studies that employ competing risks as an optimal framework to analyze the durability and outcomes of militant organizations. See Fortna 2015.

⁶⁶ This follows other notable research on militant duration. See Carter 2012; Phillips 2015b; Acosta 2016.

without a violent attack.”⁶⁷ The IAD and Johnston datasets do not lay out clear duration operationalizations, as they rely on historical sourcing for dating the beginning and end of organizations.⁶⁸

The respective datasets operationalize organizational SUCCESS in terms of outcome-goal achievement, yet with different degrees. With its SYSTEMATIC ACHIEVEMENT variable, REVMOD operationalizes organizational success on a 21-point scale.⁶⁹ From the achievement measure, REVMOD then breaks down militant success into four broad categories: COMPLETE SUCCESS, PARTIAL SUCCESS, ONGOING, and NO SUCCESS. Slightly different, IAD codes: INSURGENT DEFEAT, ONGOING CONFLICT, DRAW, and INSURGENT VICTORY.⁷⁰ Due to the nature of its sample and selection criteria,⁷¹ the Johnston dataset measures organizational success as a binary variable: either the organization won or lost. Because the Price dataset does not include success measures, we add variables of ongoing conflict, partial success, and complete success to the dataset according to REVMOD’s rubric.

Identifying Leaders and Leadership Decapitation

For the IAD and REVMOD datasets, we identify and add organizational leaders and code and add decapitation cases using a multitude of historical sources.⁷² Following conventions in research on organizational leadership,⁷³ we focus our coding on “formal leaders” and do not include

⁶⁷ Price 2012, 26-27.

⁶⁸ See Boot 2013; and Johnston 2012, 56.

⁶⁹ Acosta 2019, 728-729. See also the REVMOD codebook, which details the high granularity of each of the data points. The codebook is accessible at www.revolutionarymilitant.org.

⁷⁰ Boot 2013, 412.

⁷¹ See Johnston 2012, 54-56.

⁷² Section A in the Appendix provides coding and sourcing details.

⁷³ Etzioni 1961; Bob & Nepstad 2007.

popular organizational members or “informal leaders” who may hold significant sway over a militant organization’s constituent identity group.⁷⁴

The core independent variables consist of a variety of binary measures of leadership decapitation. The first variable simply codes LEADERSHIP DECAPITATION in a broad sense, marking the removal of the top leader.⁷⁵ By applying decapitation coding for kill, arrest, and arrest/execute to the data we can better understand how the nuances of leadership decapitation affect conflict durations and outcomes. Accordingly, we break down leadership decapitation into four additional variables: whether the adversary KILLED the leader, ARRESTED the leader, ARRESTEDandEXECUTED the leader, or NO DECAPITATION occurred. The 1978 assassination of Tony Frangieh, the head of Jaish al-Tahrir al-Zghartawi, exemplifies leadership decapitation via killing. The Revolutionary United Front provides an example of an organization experiencing a decapitation arrest, with its leader Foday Sankoh facing incarceration in both 1997 and 2000. And, the 1949 capture and hanging of Antoun Saadeh, the founder and leader of al-Hezb al-Suri al-Qawmi al-Ijtima’i, exemplifies leadership decapitation via execution.

Alternative Explanatory Variables and Controls

The empirical analyses also account for various alternative explanatory variables and controls commonly found in the literature on leadership decapitation.⁷⁶ These include: ORGANIZATION SIZE,⁷⁷ ORGANIZATION AGE,⁷⁸ an organization’s number of NETWORK TIES,⁷⁹ the primary

⁷⁴ For example, we do not code Imad Mughniyeh’s assassination in 2008 as a decapitation of Hezbollah despite his vast support within Lebanon’s Shi’a-Islamist constituency. For that time period, only eliminating Hassan Nasrallah would have qualified as decapitation for Hezbollah under our coding.

⁷⁵ Cronin 2009.

⁷⁶ Jordan 2009; 2019; Price 2012; 2019.

⁷⁷ Size represents the estimate of the organization’s members in a given year.

⁷⁸ We measure age in years.

⁷⁹ REVMOD defines “a *network tie* as a declared formal alliance, affiliation, or partnership between two entities. Co-sponsored attacks also demonstrate a network connection, as do other documented

adversary's POLITY score⁸⁰ and GROSS DOMESTIC PRODUCT (GDP) PER CAPITA,⁸¹ and the number of times an adversary attempted but FAILED TO DECAPITATE an organization.⁸² We also include binary variables addressed in previous studies⁸³: whether an organization fought a RIVAL militant organization,⁸⁴ whether an organization emerged PRE-1945, and whether an organization pursues a NATIONALIST outcome goal.⁸⁵

Empirical Results

Notably, we employ competing-risks regression models as they simultaneously account for multiple competing outcomes—known in the survival analysis literature as *failures*.⁸⁶ The reported subhazard ratios offer a more intuitive interpretation than coefficients. A subhazard ratio above the baseline of one demonstrates that a variable increases the likelihood of the *outcome under competition* occurring, whereas a subhazard ratio below the baseline of one signifies that a variable decreases the likelihood of the specific outcome occurring. Subhazard ratios signify how competing-risks models estimate a failure while simultaneously accounting for plausible competing events; for example: ‘Moving from no leadership decapitation to successful leadership decapitation is associated with a

forms of collaboration like sharing a training camp. Network ties are likewise identified through ‘conduits’ or individual operatives that link together two or more organizations.’”

⁸⁰ The Polity control is especially important considering autocratic states are more willing to use extreme incarceration techniques that may counter human-rights standards but effectively cut off the incarcerated leader from the organizational structure. Examples include the incarceration of Sendero Luminoso leader, Abimael Guzmán, by Peru under the rule of Alberto Fujimori, as well as the case of PKK leader, Abdullah Öcalan, who Turkey incarcerated on the island of İmralı as its sole inmate. See Ibon Vilelabeitia, “Company at Last for Kurdish Inmate Alone for Ten Years,” *The Scotsman* (18 November 2009).

⁸¹ We utilize the World Bank’s annual reporting for GDP per capita.

⁸² To code this variable, we scoured new reports, historical texts, and other sources for documentation of failed attempts to arrest or kill the top leaders of militant organizations.

⁸³ Price 2012; Johnston 2012; Boot 2013.

⁸⁴ See Price 2012; 2019.

⁸⁵ *Nationalist* denotes whether an organization pursues an agenda involving secession, autonomy, or the liberation of a specific identity group currently ruled by a different identity group.

⁸⁶ Fine & Gray 1999; Box-Steffensmeier & Jones 2004.

___% greater/lesser incidence per year of a militant organization’s death in subjects that are either event-free (i.e., those that still operate) or those that experienced a competing event (i.e., those that achieved success).’

We sequence the analyses of the datasets according to sample size and availability of controls; as the *n* and the sophistication of control variables increase, the empirical results become more nuanced. In a short summarizing preview, the Johnston and IAD datasets suggest that leadership decapitation makes for a COIN/CT *magic bullet*. Similarly, without any negative effects, the results from the Price dataset connote fully positive results from a COIN/CT perspective. REVMOD analyses offer a more nuanced assessment, identifying the tradeoff and gamble of leadership decapitation.

Table 3 begins with an analysis of the Johnston dataset. While this dataset of insurgent/guerrilla organizations (1803-2006) offers a limited *n* and lack of controls, the analyses show that leadership decapitation generally functions as a ‘magic bullet’ to eliminate insurgent organizations and destroy their strategic capacity. The models also demonstrate that pre-1945 militant organizations do not last as long and do not succeed as easily as post-1945 organizations.

Table 3: Competing Risks Results (*JOHNSTON* Dataset)

	Model 1a <i>Defunct</i>	Model 1b <i>Defunct</i>	Model 2a <i>Complete Success</i>	Model 2b <i>Complete Success</i>
Leadership Decapitation	1.787** (0.334)		0.207*** (0.092)	
Leader Killed		1.494 (0.340)		0.402* (0.177)
Leader Arrested		2.382*** (0.533)		0.000*** (0.000)
Leader Arrested & Executed		2.304** (0.654)		0.000*** (0.000)
Pre-1945 Rebels	2.722*** (0.503)	2.596*** (0.481)	0.299** (0.104)	0.312** (0.108)
<i>n</i>	154	154	154	154
Failures	111	111	43	43
Competing	43	43	111	111
Censored	0	0	0	0
Wald χ^2	44.34***	57.52***	30.92***	4319.34***
Log Pseudolikelihood	-489.03	-486.78	-193.49	-187.89

Note: subhazard ratios with robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05

Table 4 shows the analysis of the IAD dataset of insurgent/guerrilla organizations (1776-2012). With a much larger n , but a lack of controls, the findings show leadership decapitation, in all of its forms, destroys and eliminates insurgent organizations. Similar to the results from the Johnston dataset, post-1945 organizations are also more likely to endure for longer durations.

Table 4: Competing Risks Results (*IAD* Database)

	Model 3a <i>Defunct</i>	Model 3b <i>Defunct</i>	Model 4a <i>Success</i>	Model 4b <i>Success</i>
Leadership Decapitation	1.817*** (0.248)		0.267*** (0.062)	
Leader Killed		1.695** (0.241)		0.280*** (0.088)
Leader Arrested		1.721** (0.281)		0.272*** (0.088)
Leader Arrested & Executed		3.270*** (0.800)		0.153** (0.108)
Pre-1945 Rebels	3.178*** (0.443)	2.976*** (0.430)	0.854 (0.175)	0.881 (0.180)
n	442	442	442	442
Failures	244	244	96	96
Competing	198	198	346	346
Censored	0	0	0	0
Wald χ^2	83.51***	97.79***	32.41***	33.84***
Log Pseudolikelihood	-1357.59	-1352.24	-554.72	-553.47
Note: subhazard ratios with robust standard errors in parentheses; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$				

Table 5 presents the analysis on the Price dataset of terrorist organizations (1970-2008). With a slightly larger n , more controls variables, and greater nuance in the outcome variables, the analyses show that leadership decapitation in the form of arrest works to eliminate organizations. Here, leadership decapitation in the forms of arrest/incarceration and arrest/execution reduce incidences of partial organizational success, but have no effect on the prospects of complete organizational success. Additional findings show that organization size extends duration, as well as the likelihood of both partial and complete success, and network ties similarly increases duration.

Table 5: Competing Risks Results (*PRICE* Dataset)

	Model 5a <i>Defunct</i>	Model 5b <i>Defunct</i>	Model 6a <i>Partial Success</i>	Model 6b <i>Partial Success</i>	Model 7a <i>Complete Success</i>	Model 7b <i>Complete Success</i>
Leadership Decapitation	1.425 (0.309)		0.932 (0.607)		0.837 (0.619)	
Leader Killed		1.082 (0.214)		1.681 (1.636)		2.014 (1.762)
Leader Arrested		1.811** (0.347)		0.000*** (0.000)		0.974 (0.774)
Leader Arrested & Executed		1.814 (0.658)		0.000*** (0.000)		1.418 (2.198)
Co-Leader	1.243 (0.266)	1.325 (0.283)	0.455 (0.473)	0.448 (0.434)		0.580 (0.720)
Organization Size (logged)	0.770*** (0.040)	0.784*** (0.041)	1.559** (0.254)	1.540 (0.347)	1.658* (0.372)	1.770* (0.468)
Network Tie (dummy)	0.671 (0.150)	0.610* (0.135)	1.701 (1.914)	1.838 (2.235)	0.255 (0.187)	0.298 (0.222)
Rival (dummy)	0.720 (0.169)	0.790 (0.197)	2.383 (1.492)	2.441 (1.507)	1.587 (1.105)	1.560 (1.222)
<i>n</i>	207	207	207	207	207	207
Failures	110	110	9	9	9	9
Competing	18	83	184	184	184	184
Censored	79	14	14	14	14	14
Wald χ^2	50.50***	55.86***	14.82**	2223.86***	12.96*	14.90*
Log Pseudolikelihood	-487.97	-519.75	-41.23	-37.55	-39.76	-39.38

Note: subhazard ratios with robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05

Table 6 presents the analysis of REVMOD’s annual dataset of militant organizations (1940-2014). Leadership decapitation in the form of outright-killing decreases organizational life spans, whereas execution extends organization duration yet derogates prospects for partial success. Notably, failed-decapitation attempts likewise increase organizational duration—signaling a stark caveat to the notion of leadership decapitation as a COIN/CT ‘magic bullet.’ Regarding complete success, outright-killing, execution, and failed strikes all curb the likelihood of an organization fully achieving its outcome goals. Failed attempts likely push leaders underground—making them harder to kill but also disrupting the organization’s communication flow and strategic capacity as a result.⁸⁷

⁸⁷ Gunaratna & Oreg 2010.

Table 6: Competing Risks Results (*REVMOD* Dataset)

	Model 8a <i>Defunct</i>	Model 8b <i>Defunct</i>	Model 9a <i>Partial Success</i>	Model 9b <i>Partial Success</i>	Model 10a <i>Complete Success</i>	Model 10b <i>Complete Success</i>
Leadership Decapitation	2.820*** (0.552)		0.454* (0.149)		0.597 (0.359)	
Leader Killed		2.532* (1.085)		0.589 (0.294)		0.000*** (0.000)
Leader Arrested		2.210 (0.905)		0.421 (0.221)		0.912 (0.693)
Leader Arrested & Executed		0.000*** (0.000)		0.000*** (0.000)		0.000*** (0.000)
Failed Decapitation Attempts	0.000*** (0.000)	0.000*** (0.000)	1.603 (0.639)	1.593 (0.638)	0.000*** (0.000)	0.000*** (0.000)
Organization Size (logged)	0.658*** (0.052)	0.665*** (0.053)	1.342*** (0.027)	1.346*** (0.027)	1.250*** (0.053)	1.246*** (0.052)
Nationalist	1.721 (0.553)	1.670 (0.583)	0.576*** (0.074)	0.584** (0.075)	0.663 (0.174)	0.642 (0.169)
Network Ties	0.893* (0.044)	0.895* (0.045)	1.029 (0.013)	1.029* (0.013)	1.128*** (0.025)	1.134*** (0.025)
Adversary Polity	0.964* (0.015)	0.966* (0.016)	0.967** (0.010)	0.967** (0.010)	0.820*** (0.031)	0.819*** (0.032)
Adversary GDP Per Capita (logged)	1.120** (0.045)	1.113* (0.049)	1.089** (0.027)	1.090** (0.027)	0.990 (0.052)	0.984 (0.054)
<i>n</i>	3052	2935	3052	2935	3052	2935
Subjects	3052	2935	3052	2935	3052	2935
Failures	121	110	307	305	73	72
Competing	2931	2825	2745	2630	2979	2863
Censored	0	0	0	0	0	0
Wald χ^2	2442.37***	2983.18***	328.41***	1724.80***	727.10***	3826.24***
Log Pseudolikelihood	-885.56	-806.36	-2310.63	-2282.99	-499.61	-486.76

Note: subhazard ratios with robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05

Additional findings show that organization size greatly increases duration and the likelihood of partial and complete success, and network ties increase longevity and prospects for success. Further, the more democratic the adversary, the longer the conflict and the less likely the militant organization will achieve complete success. Yet, the wealthier the adversary, the shorter the organization duration and the more likely it is that the organization will achieve complete success. This democratic-wealthy paradox may reflect why poorer democracies like India face strikingly high rates of rebellion and terrorism relative to wealthier democracies.

We now plot the stacked cumulative-incidence functions (CIFs) of a militant organization's demise with the degree of goal achievement as the competing risk. From a modeling standpoint, an organization will either die, attain success, or remain alive but with its goals unfulfilled. Figure 1 depicts the competing risk of militant organizations achieving partial outcome-goal success, whereas

Figure 2 exhibits achieving complete success. The stacked CIFs illustrate the probability of each possible outcome at any given age.

For partial success in Figure 1, with organizations that did not experience leadership decapitation, at approximately 77 years we see 55 percent of all organizations having failed, roughly eight percent partially achieved their goals, and around 37 percent remained active but without achieving their outcome goals to any degree. Comparing this to the decapitated organizations, at 77 years where about 90 percent of the groups had died, nine percent partially achieved outcome goals, and one percent were alive without achieving any degree of success. For the threshold of a militant organization's partial outcome-goal achievement, at ten years of age there is a 25 percent greater probability of demise after leadership decapitation (55 percent versus 30 percent). At 20 years of age the difference reaches nearly 35 percent greater for decapitated organizations compared to those that did not experience leadership decapitation (75 percent versus 40 percent). After roughly 77 years, the probability of organization demise increases to 90 percent for decapitated groups, compared to 55 percent for those that did experience decapitation. When disaggregating the decapitation by type, outright-killings made the strongest impact on group demise, followed by leadership arrest. Organizations that faced decapitation through leader arrest-and-execution were not exposed such that these groups did not achieve any success, nor were they eliminated.

Raising the threshold of success to complete outcome-goal achievement reveals more pronounced results (see Figure 2). At ten years of age, decapitated organizations face nearly a 40 percent greater probability of demise when compared to non-decapitated organizations (65 percent versus 25 percent). At 20 years, the probability differential shifts to 35 percent (75 percent versus 40 percent), and at 150 years the differential reaches 32 percent at higher levels of likelihood (92 percent for decapitated organizations and 60 percent for non-decapitated organizations).

Figure 1: Partial Success

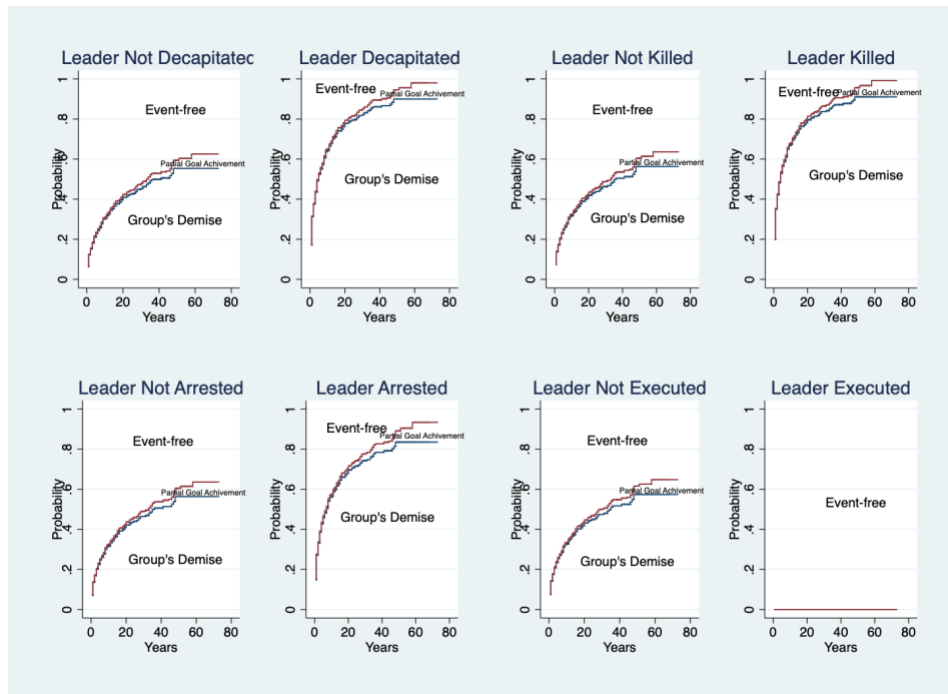
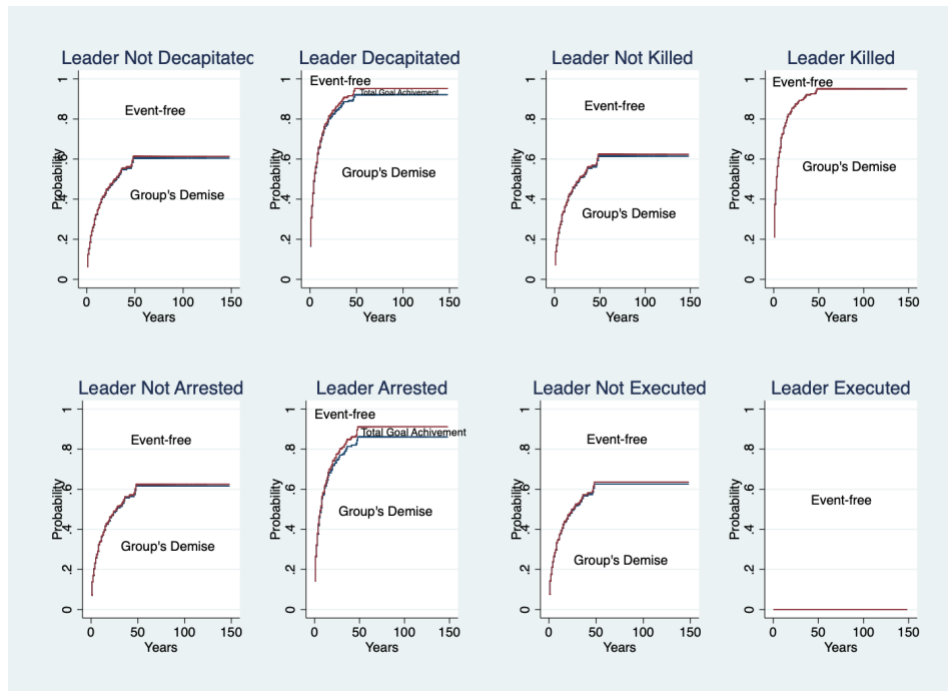


Figure 2: Complete Success



Time-Series Analysis

Emanating from the field of epidemiology, the competing-risks methodology originated with the assessment of medical and healthcare data—often based on the empirically rich framework of treatment/non-treatment groups.⁸⁸ Yet, the method cannot incorporate time-series operators such as lagged explanatory variables. Utilizing REVMOD’s organization-year data, we run additional—more sophisticated—dynamic analyses to further test the effects of leadership decapitation on the types on militant success. For these models, we analyze REVMOD’s graduated measure of systematic organizational achievement as the dependent variable and assess time-lagged explanatory variables. Accounting for potential autocorrelation, we present the results of Prais-Winston regressions in Table 7.⁸⁹

With these time-series models, we learn that leadership decapitation works to systematically decrease the incremental achievement of militant organizations. More specifically, Model 13b illustrates that the effects of outright-killing and execution function at $t-1$. Unlike with organizational duration (in Model 8), failed-decapitation attempts yield no statistically significant effect on systematic achievement. Additional findings show that organization size increases the likelihood of systematic achievement, whereas organization age and wealthier-state adversaries decrease the likelihood of systematic achievement.

⁸⁸ Latouchea et al. 2013; Muñoz et al. 2013.

⁸⁹ Panel regression models produce similar results.

Table 7: Time-Series Regression Results

	Model 11a <i>Systematic Achievement</i>	Model 11b <i>Systematic Achievement</i>	Model 12a <i>Systematic Achievement</i>	Model 12b <i>Systematic Achievement</i>	Model 13a <i>Systematic Achievement</i>	Model 13b <i>Systematic Achievement</i>
Leadership Decapitation	-0.279* (0.117)		-0.278* (0.112)		-0.347** (0.125)	
Leadership Decapitation <i>t</i> -1					-0.351** (0.113)	
Leader Killed		-0.473* (0.193)		-0.483** (0.180)		-0.613** (0.218)
Leader Killed <i>t</i> -1						-0.537** (0.192)
Leader Arrested		-0.060 (0.163)		-0.051 (0.160)		-0.136 (0.176)
Leader Arrested <i>t</i> -1						-0.219 (0.160)
Leader Arrested & Executed		-0.027 (0.924)		-0.038 (0.932)		0.233 (0.500)
Leader Arrested & Executed <i>t</i> -1						-1.331* (0.573)
Failed Decapitation Attempts	0.156 (0.189)	0.133 (0.189)	0.171 (0.180)	0.152 (0.180)	0.163 (0.206)	0.136 (0.208)
Failed Decapitation Attempts <i>t</i> -1					-0.035 (0.164)	-0.015 (0.167)
Organization Size (logged)	0.631*** (0.053)	0.619*** (0.053)	0.649*** (0.050)	0.642*** (0.049)	0.616*** (0.050)	0.617*** (0.052)
Nationalist	-0.255 (0.304)	-0.184 (0.282)				
Organization Age	-0.012* (0.005)	-0.011* (0.005)	-0.012* (0.005)	-0.011* (0.005)	-0.012** (0.005)	-0.011* (0.005)
Network Ties	0.029 (0.024)	0.032 (0.024)				
Adversary Polity	-0.001 (0.012)	-0.001 (0.012)	0.002 (0.011)	0.004 (0.011)	0.009 (0.011)	0.012 (0.011)
Adversary GDP Per Capita (logged)	-0.026 (0.027)	-0.028 (0.028)	-0.029 (0.026)	-0.034 (0.027)	-0.058* (0.024)	-0.067** (0.025)
Constant	1.931*** (0.360)	1.944*** (0.377)	1.686*** (0.290)	1.821*** (0.359)	1.971*** (0.308)	1.980*** (0.321)
<i>n</i>	3252	3124	3605	3462	3368	3214
R ²	0.27	0.26	0.29	0.28	0.28	0.27
F-statistic	27.10***	21.41***	39.25***	25.23***	26.51	17.51***
Root MSE	1.62	1.61	1.61	1.59	1.49	1.47
<i>p</i>	0.85	0.85	0.85	0.85	0.88	0.89
Coefficients with semi-robust standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05						

Table 8 summarizes the overall modeling results vis-à-vis the hypotheses. We **bolden** the most *sophisticated* models within cohorts. We gradate methodological sophistication as such: lowest level (Models 1a-7b do not test time-varying data), mid-level (Models 8a-10b test time-varying data), and the top tier (Models 11a-13b test time-varying data and include time-lagged variables). Chiefly, the models provide solid empirical support for H_{1A} and H_{1B}. The models only partially support H_{2A} and H_{2B}. Perhaps, most importantly, the findings on failed-decapitation attempts elucidate a severe caution to COIN/CT policymakers.

Table 8: Results Overview

Hypothesis	Supportive Models	Partially Supportive	Negating Models
H _{1A} : Leadership decapitation decreases militant success.	2a, 4a, 9a, 11a, 12a, 13a		
H _{1B} : Leader arrest decreases militant success less than assassinating or executing a leader.	10b, 13b	2b, 4b, 11b, 12b	
H _{2A} : Leadership decapitation and failed-decapitation attempts increase militant duration.		8a, 8b	1a, 3a
H _{2B} : Leader arrest increases militant duration less than assassinating or executing a leader.		3b, 8b	1b, 5b

*“Hearts-and-Minds” and the Francis Marion Effect*⁹⁰

The American Revolutionary War (1775-1783) helped usher in the dawn of a new era of modern warfare.⁹¹ But, names like Washington and Cornwallis arguably do not mark the greatest contributors to the era’s evolution of warfare. Rather, British General Sir Henry Clinton, Sir Banastre Tarleton and his foe, the “Old Fox,”⁹² American revolutionary Francis Marion might merit the trophy. Far before U.S. President Lyndon B. Johnson or prominent 20th Century counter-insurgents proselytized the axiom, General Clinton noted the strategic necessity to “gain the hearts and subdue the minds of [the people].”⁹³ Circa 1780, Marion crafted, if not perfected, the “small war” some three decades before the notion of *guerrilla* warfare gained popularity amid the Peninsular War between Spanish/Portuguese fighters and Napoleon’s imperial forces (1807-1814). As Marion’s South Carolinian militia devastated British supply lines—*contra*-Clinton’s advice—General Cornwallis tasked “cavalry raider” Tarleton to track down and assassinate Marion.⁹⁴ The logic rested on the strategy that the swamp militia could not (or would not) continue to operate without its leader

⁹⁰ At the state-level, one might alternatively term this phenomenon the “Fidel Castro Effect.”

⁹¹ See Boot 2013, 64-79.

⁹² Aka, the “Swamp Fox”—a mythologized variant of Marion’s *nom de guerre*. Boot 2013, 73.

⁹³ Cited in Boot 2013, 384.

⁹⁴ Bass [1959]2017.

Marion.⁹⁵ With each failure of Tarleton’s wild decapitation attempts to capture or kill Marion, Colonial Tories dwindled in numbers and American support for Marion and the Revolution rose sharply.⁹⁶ The “Francis Marion effect” poses a cautionary tale: leadership decapitation may promise a seemingly *magical* series of destabilizing effects on the adversary, yet to fire the ‘magic bullet’ and miss commonly elicits disastrous consequences.

Concluding Remarks

Analyzing multiple datasets with unique timeframes and samples, this research note finds that particular typologies of leadership decapitation matter greatly in affecting the life spans and success of militant organizations. The competing-risks and time-series models applied to the time-varying REVMOD data demonstrate that leadership decapitation regularly stymies militant achievement. Particularly, outright-killing or execution of the leader effectively counter the corresponding organization’s success. While leader execution diminishes the likelihood of militant success, it presents a tradeoff—bearing with it the true martyrdom effect that strengthens the organization’s survivability. As with most military solutions to political conflicts, a *catch* prevails. Leadership decapitation is not a ‘magic-bullet’ strategy, as failed-decapitation attempts also embolden and prolong the duration of targeted militant organizations’ life spans. Thus, regarding COIN/CT policy, the findings do not endorse a “scattershot” attempt to kill a leader through a recurring set of decapitation attempts. Quality strikes matter more than the quantity of attempts. Every failed-decapitation attempt works to immortalize the ‘invincible’ leader and bolster the organization’s durability. As history and the empirical models in this research note suggest: “*When firing the ‘magic bullet,’ just don’t miss.*”

⁹⁵ Bass [1959]2017.

⁹⁶ Bass [1959]2017; Boot 2013.

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