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PLANES, TRAINS, AND CAR BOMBS

THE METHOD BEHIND THE MADNESS OF TERRORISM

BY NICK ADAMS, TED NORDHAUS, AND MICHAEL SHELLINGER • JANUARY 2012

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TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	4
I. INTRODUCTION	10
II. WHAT HIRABI TERRORISTS HAVE DONE	15
III. WHAT HIRABI TERRORISTS ARE TRYING TO DO	20
IV. A SPECTACLE FOR TWO AUDIENCES (PLUS A THIRD)	26
V. THE METHODICAL MADNESS OF HIRABI ATTACK DESIGN.....	36
VI. WHAT HIRABI TERRORISTS ARE CAPABLE OF DOING.....	43
VII. A LIMITED REPERTOIRE	55
VIII. CONCLUSION	67
AUTHORS' NOTE	69
ENDNOTES.....	70

EXECUTIVE SUMMARY

As we marked the ten-year anniversary of 9/11, we also marked the expiration date of countless predictions that other devastating al Qaeda (inspired, financed, or directed) attacks would occur on US soil within a decade of that fateful day. Little more than a week after the atrocities, Attorney General John Ashcroft worried aloud “that terrorist activity against the United States may increase once this country responds to [the] attacks.” Ten days later, Democratic Senator Carl Levin told Fox News that “biological and chemical threats [...] are real. We ought to put resources there.” Republican Representative Chris Shays of Connecticut was more trenchant: “I am absolutely certain that terrorists, if they don’t have access to biological weapons now, will; and I am absolutely certain that they will use them. The expertise exists. The potential that it has been shared with a terrorist is almost a no brainer.”¹ President Bush pushed the possibility of catastrophe to its logical extreme: “these terrorists ... are seeking chemical, biological, and nuclear weapons. Given the means, our enemies would be a threat to every nation and, eventually, to civilization itself.”²

Such dire predictions were not confined to the political class. Terrorism experts and academics like Walter Laqueur, Jessica Stern, Bruce Hoffman, Mark Juergensmeyer, and many others had seized upon the notion that a “new terrorism” was emerging. Even before 9/11,

Laqueur wrote that “yesterday’s nuisance has become one of the gravest dangers facing mankind.”³ Many proponents of the “new terrorism” meme became even more emphatic after the attacks, arguing that religiously-inspired terrorism had become divorced from rationality.⁴ Laqueur lamented that “until recently, terrorism was, by and large, discriminate, selecting its victims carefully... It was, more often than not, ‘propaganda by deed.’ Contemporary terrorism has increasingly become indiscriminate in the choice of its victims. Its aim is no longer to conduct propaganda but to effect maximum destruction.” Laqueur described the new terrorists as “paranoiac” and driven by “all-consuming,” “nonexistent hidden motives” leading to “a loss of the sense of reality.” “The outlook,” he concluded, “is poor; there are no known cures for fanaticism and paranoia.”⁵

With the political and expert classes significantly aligned in their description of insane, religiously fanatical terrorists determined to kill millions with weapons of mass destruction, journalists and the public could do little but wait for the next heavy shoe to drop. As they looked around them, they saw vulnerabilities everywhere. After rumors of the potential for biological or chemical attacks on America’s water supply raced through the internet, *The New York Times* reported on local governments’ efforts to secure reservoirs and other sources of drinking water: “Helicopters,



patrol boats and armed guards sweep across the watershed feeding New York City, enforcing a temporary ban on fishing, hunting, and hiking. Massachusetts has sealed commuter roads that run atop dams or wind down to the water's edge. And Utah has enlisted the help of the Federal Bureau of Investigation to peer down at reservoirs from planes and satellites, hoping to spot any weak points.”⁶ By November 1st, *USA Today* was reporting that “scientists and politicians are growing increasingly worried about another possible target for terrorists: the food supply.”⁷ Several authors over the years have also flagged America’s vulnerability to internet attacks that could significantly disrupt the critical infrastructure upon which our economy depends. In a recent report, Washington’s Bipartisan Policy Center recommended that “defending the U.S. against such attacks must be an urgent priority.” “This is not science fiction,” they wrote, “It is possible to take down cyber systems and trigger cascading disruptions and damage.”⁸

Even as our greatest fears have not come to pass, the drive to promote measures eliminating even the impression of risk or threat has hardly lost momentum. Despite the fact that the United States has developed enough vaccine to inoculate its entire population against the two most deadly biological agents that terrorists might conceivably learn to produce someday, *The New York Times Magazine* recently

published a long article suggesting that more should be done — that billions should be spent developing and stockpiling vaccine for every disease that terrorists could possibly use to harm Americans.⁹ Never mind that terrorists have shown no capacity to successfully develop and weaponize any of them.

Despite the perennial warnings about exotic weapons and targets (warnings that, ironically, offer terrorists tantalizing clues about how and where the United States is vulnerable), members and allies of al Qaeda’s hirabi (AKA ‘jihadi’) movement continue to carry out the same sorts of attacks they executed in the decades before 9/11. In 1993, hirabis used a truck bomb in an attempt to topple the World Trade Center, the same tactic they used in 1996 to bomb the Khobar Towers barracks in Saudi Arabia, and in 1998 to bomb US Embassies in Kenya and Tanzania. In 2000, they used a different vehicle — a small boat — to approach their target when they bombed the USS Cole in the port of Aden, Yemen. A year later, they used different vehicles again, airplanes, to bomb the World Trade Centers and the Pentagon. Months later a hirabi named Richard Reid attempted to bomb a plane itself with a chemical explosive hidden in his shoe. In May 2002, a car bomb killed 14 people at a Karachi hotel frequented by Westerners. In October of that year, another bomb, placed in a Bali nightclub, killed 202 mostly Australian citizens.



In 2004, hirabis detonated ten bombs on four trains in Madrid, killing nearly 200 people. A year later, hirabis attacked three trains and a bus in London. Later in 2005, bombs placed at American hotels in Amman, Jordan killed 57 people. In 2007, British police uncovered a car-bomb plot targeting Glasgow Airport. In 2008, a car bomb killed six people and injured dozens more outside Pakistan's Danish Embassy. Al Qaeda claimed the attack was retaliation for an offensive political cartoon. In September 2009, Najibullah Zazi was arrested in the final stages of a plan to replicate the Madrid attacks of 2004 in New York City's subway system. On Christmas Day of the same year, Nigerian Umar Farouk Abdulmutallab attempted and failed to down a passenger plane over Detroit by detonating a chemical bomb concealed under his clothes. The next spring, Faisal Shahzad tried to detonate a car bomb in Times Square, but failed. Months later, in October 2010, al Qaeda in the Arabian Peninsula placed explosive devices in cargo planes, but cooperating international intelligence agencies foiled their plans before they could detonate the bombs. Most recently, Rezwana Ferdaus has been charged with a plot to use remote controlled planes to deliver bombs to the Pentagon. All of these and other al Qaeda directed, financed, or inspired attacks have targeted planes, trains, buses, government and symbolic buildings, and western hotels with bombs (and sometimes assault weapons).



The stark contrast between the hirabi repertoire of targets and tactics and the expansive and expanding concerns of journalists, politicians, experts, and academics begs explanation. We find that the pattern of hirabi attacks is not accidental. It is well-suited to their primary strategy — one attempting to iteratively grow support for their cause so they can one day gain political power and govern territory. That their goals are likely delusional does not diminish the rationality of their strategy, the tactics they use, or the targets they select, all of which are chosen to manipulate the governments they seek to change and the publics they seek to recruit. Various internal and external constraints on hirabi organizations also limit their capability, and thereby, the range of tactics and strategies they can pursue. This paper explores in depth all of these factors shaping hirabi activity.

PAPER OVERVIEW

The paper unfolds in eight sections. We begin by reviewing common errors in previous threat assessments that have likely contributed to their incorrect conclusions, and then introduce our own sociological approach to threat assessment. Section II begins our analysis of the hirabi threat with an itemization of hirabi attacks planned or attempted on the United States in the last decade. The range of attack styles and targets is far more limited than that imagined by previous threat analysts.

Section III begins to explain this discrepancy by drawing on previous work and internal hirabi documents to show that the main hirabi strategy does not rely on killing tens of thousands of people at a time, but on recruiting tens of millions to support what remains a rather unpopular vision. A closer look at hirabi strategy reveals that they perform for three audiences: their potential supporters, the populations and governments whose behavior they wish to coerce, and their own membership. The most successful attacks provoke state repression policies that drive populations into terrorists' arms.

Section IV fleshes out the relationships between terrorists and their various audiences. We find that the populations hirabis wish to recruit, at least for now, are not very sympathetic to their cause. Internal documents show hirabis' sensitivity to their diminished popularity and eagerness to understand the lessons of past terrorist campaigns that died out due to lack of public support. Hirabis are not, contrary to some claims, interested only in the favor of a vengeful God. Their internal strategic documents show that they deliberately (and sometimes rather effectively) manipulate states and state supporters. We find that some deep-seated human psychology (related to in-group/out-group relations) exacerbates susceptibility to terrorist manipulation, but also that states and their supporters have a great deal of power to shape the outcomes of ter-

rorist campaigns for good or bad. Their responses constitute a major factor determining the duration and success or failure of terror campaigns.

Section V applies the logic of terrorists' polarization/recruitment strategy to data describing their attacks and proposes a theory explaining the method behind the madness of terrorism. Hirabis choose their weapons and target sites with at least an intuitive understanding of how attacks will provoke target states, feed into recruitment narratives, reflect martial values that promote member morale, generate spectacular media coverage, and produce maximal psychological impact on their audiences. We find that the rather conventional weapons hirabis have used and the targets they have attacked time and again — before 9/11 and since — are better suited for their purposes than those imagined by other threat analysts, but not yet seen. And we explain, as no other analysts have, why terrorists are so enamored by planes and other transportation targets, and so disinterested in infrastructure attacks and cyber-terrorism.

Section VI reviews hirabis' internal organizational challenges, the counterterrorist obstacles they face, and their evolution in response to those obstacles. We find that hirabi organizations, including the al Qaeda flagship, are chronically plagued by internal divisions about goals, strategy, tactics, ideology, resources, logistics, and even personal conflicts. In



addition, the counterterrorism obstacles they face are significant. US and international efforts to deny hirabis safe haven, dry up their funding channels, secure dangerous materials, enhance screening mechanisms at ports, borders, and airports, harden optimal targets, and use increasingly surgical force that limits civilian casualties have all exacted a heavy toll on the hirabi movement. In response, al Qaeda and its affiliates and allies continue to evolve. Though their decline has not been linear, the evolution of the hirabi movement, in general, has resulted in an organization currently characterized by scattered bands of hirabis with fewer resources, lower competence, and weaker weapons.

Section VII explores, in more detail, the external and self-imposed limits on hirabis' arsenal. We find not only that WMDs may not suit hirabis' needs, but also that (whether they are chemical, biological, radiological, or nuclear) they are exceedingly difficult to procure or develop. Hirabis are not likely to expand their range of targets either since the targets that optimize their strategy remain relatively vulnerable. Barring a major strategic shift enabled by some highly unlikely weapons breakthrough, evidence suggests that hirabis will continue to use a limited, but strategically sufficient repertoire of attacks targeting planes, trains, and buildings with bombs and assault weapons.



A NOTE ON HIRABI VS. JIHADI

Jihad is a much-debated term that authors use to refer to a range of struggles required, encouraged, or otherwise appreciated by God. Like every other religion, Islam generates wide-ranging debates about God's will, in general, and the means to achieve it, in particular. Throughout history, countless groups in Muslim territories have purported to do their work in service of God and have endeavored to overcome obstacles through holy struggle, or *jihad*. Some of these struggles, many would agree, have been noble.¹⁰ Others are seen as atrocious, falsely claiming the word *jihad*.

While most people, including Muslims, support the repulsion of foreign invaders from their lands, few agree that the word *jihad* describes acts of terrorism targeting innocents.¹¹ Self-proclaimed *jihadi* groups have argued that Qu'ranic verses forbidding the bloodshed of innocents¹² are irrelevant because those they have killed, including Muslim women and children, are not innocent. They claim the power of *takfir* — the power to determine who is a true Muslim — and then they kill apostates with impunity.¹³

Many Arabic speakers or scholars of the Qu’ran are more likely to associate such terrorism with the word *hirabah* which refers to the killing of civilians in order to sow fear, discord, or chaos. According to the Islamic equivalent of Christianity’s “just war” tradition, political violence can only be seen as legitimate (i.e., as jihad) if it is used by a head-of-state against armies invading or occupying Muslim lands.¹⁴ Citing the Qu’ran, many scholars claim that al Qaeda can never wield legitimate force as long as it is not a state.¹⁵

Others who set aside the criterion of statehood, including some very prominent self-proclaimed jihadis, reject the legitimacy of al Qaeda’s attacks on other grounds. The highly influential mujahedeen leader and one-time partner of Osama Bin Laden, Abdullah Azzam, believed that Muslims should fight jihad to defend their oppressed fellows and expel western influence from once-Muslim lands like Israel, but he strongly and publicly argued against Bin Laden’s

goal of attacking the United States or European nation-states on their own territory.¹⁶ The Qu’ran’s “Covenant of Security” forbids a Muslim from attacking his foreign host if the host society allows him to worship freely.¹⁷

Many fighters saw things Azzam’s way. Abu Jandal, a man who left al Qaeda shortly before the 9/11 attacks, explained fighters’ dissatisfaction with Bin Laden’s *hirabah* to FBI interrogator Ali Soufan: “The brothers... are fighters who fight the enemy face-to-face. They don’t understand Bin Laden’s war and the new jihad, so they went home.” More to the point, they did not see Bin Laden’s war as proper jihad, but as *hirabah*. Many still do not.

In this paper, we reclaim the narrower, traditional definition of jihad by using it sparingly to refer to struggles that do not intentionally kill civilians. We refer to individuals using terrorism, and especially those using it offensively outside of Muslim lands, as *hirabis* engaging in *hirabah*. We hope this convention will catch on. Using *hirabis*’ preferred moniker, *jihadi*, has only served to legitimate them and their cause.



I. INTRODUCTION

THE NEED FOR UPDATED THREAT ASSESSMENT

The Navy Seals who dispatched Osama Bin Laden recovered documents indicating that he was concerned about his group's future prospects. It had become so unpopular after failing in Iraq and killing thousands of Muslims elsewhere, that Bin Laden was seriously considering renaming and rebranding the most feared terror network in the world. Despite these well founded concerns, to say nothing of Bin Laden's death, some American terrorism experts continue to assert that al Qaeda remains a major threat to the United States. Georgetown University professor Bruce Hoffman has continually warned of al Qaeda's resilience and potency throughout its existence. In July 2011, Hoffman rejected CIA and Defense Department claims that al Qaeda was nearing "strategic defeat," claiming, days after Defense Secretary Leon Panetta's assessment, and well before any data could have been tabulated, that there was "no empirical evidence that either the appeal of [al Qaeda's] message or the flow of recruits into its ranks has actually diminished."¹⁸

Hoffman, author of one of the canonical analyses of the inner workings of a range of modern terrorist organizations, *Inside Terrorism*, has repeatedly defended his initial (rather dire) assessment of al Qaeda against the updated characterizations offered by other scholars. For example, in the mid-2000s Hoffman en-

gaged in very heated and public debate seeking to discredit forensic psychologist Marc Sageman's characterization of al Qaeda as an organization transitioning to a more networked globular structure lacking clear lines of authority. One could charge Sageman with exaggerating the extent of this transition in the title of his book: *Leaderless Jihad* (a play on "leaderless resistance," which is a nonhierarchical organizational style many clandestine direct-action groups have employed to protect the anonymity of members). But virtually all analysts agree that al Qaeda evolved in the direction of Sageman's description, including Hoffman himself, in his less polemical writings.¹⁹

Along with Hoffman, former CIA officer and Brookings Institute Senior Fellow Bruce Riedel has continued to warn about al Qaeda's continuing strength and relevance even after the death of Bin Laden and the fundamental political shifts brought on by the Arab Spring.²⁰ On the tenth anniversary of September 11th, Riedel even prophesied that al Qaeda's motivating ideology "won't die."²¹

Graham Allison, of Harvard's Belfer Center, has also emphasized worst-case scenarios. In his 2004 book, *Nuclear Terrorism*, he contended that a nuclear terrorist attack was inevitable if counterterrorism did not change course.²² In 2005, he estimated the probability of an attack with a weapon of mass destruction (WMD) at 50 percent within the next ten years, repeating



that claim in 2007 in a Council on Foreign Relations (CFR) online debate with CFR Fellow Michael Levi.²³ He wrote the forward to a provocative 2010 white paper authored by his Belfer Center colleague, Rolf Mowatt-Larssen, that conflated al Qaeda’s frequent bluster about nuclear weapons and other WMDs with its actual capabilities.²⁴

Such dire, but apparently incorrect, assessments may be driven by a number of factors. Humans tend to overestimate the dangers of terrorism and other risks over which they have little control.²⁵ Experts are not immune to these cognitive errors and may suffer from others, as well. Studies show that experts may be more prone to faulty estimates and predictions because they have more detailed information (even if it is offset by contrary evidence) with which to bolster their prefigured conclusions.²⁶

Overestimations of terrorist threats may also be driven by authors’ feelings of responsibility to protect targeted populations. No one wants innocent lives to be lost because he or she counseled policymakers to worry too little about a threat. More cynically, some have argued that government (and other) funders tend to handsomely reward work that raises urgent concerns not work producing sober, methodical, and ultimately reassuring assessments.²⁷ In this regard, alarmist threat analysis may fit Richard Clarke’s description of the

broader counterterrorism field as a “self-licking ice cream cone.”²⁸

Many analysts predict doom after they have lost focus on what enemies will likely do and, instead begun to catalogue all of the fearful vulnerabilities in their midst. Thus, the US Department of Homeland Security (DHS), shortly after its creation, generated a list of thousands of potential terrorist targets ranging from the realistic (e.g., Statue of Liberty) to the paranoid (e.g., Amish Country Popcorn Factory) offering little explanation for why any target would be desirable from a terrorist’s perspective.²⁹ More recently *The New York Times Magazine* has published a piece lamenting the government’s failure to spend billions of dollars developing and stockpiling vaccines for all the dangerous diseases known to man, while providing no analysis of terrorists’ limited intent and capability when it comes to weaponizing the diseases.³⁰

Such reports, itemizing attacks that *could*, under some expansive (and often undefined) set of conditions, be carried out against US interests are actually *vulnerability* assessments, not threat assessments. And they are of little value because, to put it simply, every human in a public space is vulnerable to a suicide bomber or a mad gunman. Whether they are *threatened* by such killers is an entirely different question — one which requires an understanding of how and why terrorists choose the targets they



do, and what kind of attacks they are truly capable of executing.

This highlights another problem with many previous threat assessments: the failure to adequately distinguish between terrorists' intentions and their capabilities. Some reports conflate the two, stoking fears, for instance, that terrorists' transparent bluffs and stated desires to procure massively destructive weapons suggest that they will successfully detonate those weapons soon.³¹ Such assessments not only fail to regard terrorists' threats with any skepticism, they fail to carefully analyze what terrorists are capable of alongside an appropriate accounting of all the obstacles they face as they pursue their purported goals.

Threat assessments biased towards inflating the danger of terrorism are often defended with reference to the precautionary principle, a concept most famously demonstrated in the domain of counterterrorism as Dick Cheney's "one percent doctrine."³² But while it may seem "better to be safe than sorry," inaccurately exaggerating the threat of terrorism can help terrorists achieve one of their main objectives – to frighten the public and policy-makers into making decisions that actually help terrorists' causes. Assessments that underplay the threat of terrorism, of course, may also have tragic consequences if they breed complacency.

A COMPREHENSIVE FRAMEWORK FOR THREAT ASSESSMENT

In assessing the current threat of hirabi terrorism, we have taken pains to avoid the pitfalls of previous threat analyses. We have eschewed references to political or policy lodestars, allowing the collective facts of hirabi terrorism to unfold into conclusions informed by relevant social science research. Readers will find that we start our analysis below with a very transparent and simple tabulation of data about the attacks attempted or plotted by hirabi terrorists in the United States since 9/11. There, a pattern of targets and tactics emerges showing that hirabis, to this point, have sought to execute a range of attacks far more limited than the scope of atrocities analysts have warned against. We explore, in depth, the factors limiting this range.

Accurate and useful threat assessment requires understanding how terrorist campaigns grow and how they die. Though terrorists' lethality is an urgent concern and might seem to be the most relevant factor in any assessment of the threat they pose, evidence suggests that the long-term survival and success of terrorist campaigns depends much less on the death tolls they amass than on their ability to continually replenish and grow their ranks.³³ While death tolls are easily quantifiable and often used to measure the success of terrorist and counterterrorist campaigns (probably because



they are so easily measured),³⁴ terrorist organizations are not fundamentally military groups seeking to kill or capture enemy soldiers, but rather political groups seeking to attract and inspire an audience of potential recruits and supporters while coercing targeted governments and populations to grant their demands.

This insight — that terrorist organizations employ violence discursively (i.e., in order to secure reinforcements in an ongoing war of ideas) not just militarily (i.e., in order to wield direct control over the lives and deaths of their enemies) — is not new. It was implicit in Paul Wilkinson's *Terrorism v. Democracy* and centrally placed in Audrey Kurth Cronin's *How Terrorism Ends*, for just two examples.³⁵ But it is frequently undervalued by a national security apparatus often ill-equipped to perform qualitative social scientific analysis.³⁶ One of the things we bring to threat assessment in what follows, therefore, is an accessible application of the broader theory of social movements and discursive performance to questions about how terrorism campaigns perpetuate themselves or decay.³⁷ We focus particular attention on how hirabi groups, often troubled by conflicting internal organizational imperatives, communicate and miscommunicate (sometimes directly and sometimes through violent action) to different audiences as they aim to grow their movement and its salience.

Understanding how terrorists perform for various audiences also helps us to explain why they gravitate to the use of some weapons or attack styles over others. We discuss these and other factors relevant to their targeting and weapons decisions, including their own martial values, their proficiency and familiarity with different weapons, and the various psychological impacts that weapons can have on victims. Together with strategic necessities, these factors constrain the list of weapons and attack styles terrorists are likely to employ. There is a method to the madness of terrorism.

The social sciences also have much to say about how the responses of targeted governments and populations affect the success and longevity of terrorist campaigns. This area of threat assessment has been significantly neglected by previous threat reports. But the relational (or interactive) theory of terrorist campaigns that we employ stresses the importance of the quality of targeted governments' responses. As we elaborate below, terrorists often strategically goad states to react with policies that create a rift between the state and the people that terrorists would like to recruit. Terrorist success, therefore, often depends on the susceptibility of targeted populations and their policymaking elite to the psychological traps terrorists set for them.

It is not entirely clear why so much previous threat assessment has shied from addressing the role that state responses play in the out-



comes of terror/counterterror campaigns. The failure to attend to mutually determined consequences could reflect the authors' fundamental cognitive preference for dualistic, as opposed to relational thinking. Or, perhaps researchers have demurred from any analysis that could be misinterpreted as "blaming victims" for their lot. Maybe the men and women tasked with previous threat assessment have been directed by their superiors to focus their work on 'them' and not 'us and them,' perhaps to avoid making recommendations to civilian higher-ups uninterested in policy approaches that may disappoint their retribution-seeking constituencies. Whatever the reason for the lack of such relational analysis, we have sought to correct it here as we assess the multitude of factors affecting the capacity of, and threat posed by, hirabi terrorist groups.



First, in order to calibrate our assessment of the hirabi threat with reality, we review all of the hirabi attacks planned or attempted on the United States since September 11, 2001.

II. WHAT HIRABI TERRORISTS HAVE DONE

The tenth anniversary of 9/11 rebuffed widespread predictions that another large-scale al Qaeda (inspired, financed, or directed) terrorist attack would occur within the decade. Such predictions were actually quite modest in late 2001 — even to the point of media irrelevance — as many pundits foretold another devastating attack within five years, one year, or even a matter of months. Government vulnerability and threat reports raised concerns that terrorists might attack water and food supplies, nuclear facilities, critical energy infrastructure, bridges, and key Internet nodes, or, worse, that they might attack civilian populations using chemical, biological, radiological, or nuclear (CBRN) weapons capable of producing casualties in the tens of thousands or more. So far, however, the decade since 9/11 has produced none of these feared attacks.³⁸

Only two men identifying with the hirabi movement have successfully harmed targets on US soil in the last ten years. In 2009, Abdullah Mujahid Muhammad (formerly known as Carlos Bledsoe) shot two soldiers at a military recruiting station in Little Rock, Arkansas, killing one. A few months later, Nidal Malik Hassan opened fire on his colleagues at Fort Hood, Texas, killing 13 and wounding over 40 others. Both men appear to have been inspired, in part, by al Qaeda in the Arabian Peninsula (AQAP) propagandist and US citizen Anwar al Awlaki.³⁹

In some cases, Americans appear simply to have been lucky that hirabi attackers were not

more skilled. Although increased airport screening can be credited with forcing Richard Reid and Umar Farouk Abdulmutallab to use more complicated and less reliable chemical bombs, their detonations were ultimately prevented by the interventions of alert and brave passengers. Faisal Shahzad's truck bomb dud in New York City's Times Square a month after Abdulmutallab's attempt, again, showed that America's counterterrorism successes would, at times, come down to serendipity and alert citizens' actions. It was a T-shirt vendor (and practicing Muslim), not a New York Police Department officer sitting in his cruiser across the street, who first noticed and reported smoke billowing from Shahzad's SUV.

Though fortune appears to have smiled on the United States in these cases, most of the thirty-four plots foiled since 9/11 have been prevented thanks to public tips, undercover informants or officers, international intelligence cooperation, or traditional surveillance tactics that uncovered a web of hirabi interlocutors (see Table 1).⁴⁰

Of the thirty-four unsuccessful plots,⁴¹ a plurality targeted symbolic and/or government buildings with bombs. Transportation targets, including trains, planes, and airports, were the second most popular targets, followed by US military personnel, facilities, and assets. Malls, synagogues, hotels, and political figures were the planned targets in three or fewer plots each. None of the plots targeted food or water supplies, or energy or internet infrastructure.



**TABLE 1:
FOILED PLOTS TARGETING OR PLANNED BY US CIVILIANS SINCE 9/11**

ACTORS/ PLOT NAME	HOW FOILED	TARGET	WEAPONS	YEAR
Richard Reid	Direct civilian intervention	Airliner	TATP shoe bomb	2001
Library Tower Plot	Foreign intelligence cooperation	Symbolic building	Airliner as missile	2002
Jose Padilla	Mis/Information from detainees (Zubaydah)	Buildings in Chicago (supposedly)	Nonexistent “dirty bomb”	2002
Lackawanna Six	Community tip and then paid undercover informants	Unspecified	Assault weapons and IEDs	2002
Mohammed Jabarah	Foreign intelligence cooperation	Multiple international targets in Singapore	Bombs	2002
Portland Seven	Community tip and then undercover informants	American soldiers in Afghanistan	Assault weapons and IEDs	2002-2003
Khalid Sheikh Mohammed (KSM)	Reward for tips program, foreign intelligence cooperation	Several symbolic buildings	Airliners as missiles, bombs, assault weapons	2003
Virginia Jihad Network	Community tips	American and international soldiers fighting hirabis	Assault weapons and IEDs	2003
Iyman Faris	Information from detainee (KSM)	Brooklyn Bridge	Acetylene torch	2003
Nuradin Abdi	Information from detainee (Faris)	Ohio shopping mall	Bombs	2003
Dhiren Barot	UK surveillance	Financial institutions in US and UK	Bombs, nonexistent “dirty bomb” (UK plot)	2004



II. WHAT HIRABI TERRORISTS HAVE DONE

ACTORS/ PLOT NAME	HOW FOILED	TARGET	WEAPONS	YEAR
James Elshafay and Shahawar Siraj	Community tip and then undercover informants	NYC Herald Square subway station	Bombs	2004
Yassin Aref and Mohammad Hossain	Discovered intelligence, then undercover informant and surveillance	Pakistani Diplomat	Grenade Launchers	2004
Umer Hayat and Hamid Hayat	Undercover agent	None specified	None specified	2005
LA Terror Plots	Initially investigated for robberies to fund their efforts	Synagogues, military facilities, government buildings	Bombs and assault weapons	2005
Mohammed Amawi et al.	Undercover agent	US soldiers in Iraq	Bombs	2006
Syed Ahmed and Ehsanul Sadequee	Associated with other terrorism suspects	The Pentagon and the Capitol Building	Bombs	2006
Liberty City Seven	Undercover agent	Sears Tower	Bombs	2006
Assem Hammoud	Associated with terrorist website	New York PATH train tunnels	Bombs	2006
Liquid Explosives Plot	Foreign intelligence cooperation	Multiple airliners	TATP bombs	2006
Derrick Shareef	Undercover agent	Mall, synagogue, government buildings	Guns, bombs, grenades	2006
Christopher Paul	Associated with other terrorism suspects	US military facilities, western hotels	Bombs	2007
Fort Dix Plot	Community tip and then undercover informant	US military facilities	Assault weapons, explosives	2007



II. WHAT HIRABI TERRORISTS HAVE DONE

ACTORS/ PLOT NAME	HOW FOILED	TARGET	WEAPONS	YEAR
JFK Terror Plot	CIA intelligence gathered in the Caribbean	Jet fuel tanks and pipelines	Bombs	2007
Hassan Abujihaad	Associated with other terrorism suspects	US Naval vessels	None specified	2008
James Cromitie et al.	Undercover agent	Synagogues, military aircraft	Bombs, stinger missiles	2009
Najibullah Zazi et al.	Apparent foreign intelligence cooperation	NYC subway	Backpack bomb	2009
Michael Finton	Law enforcement discovered suspicious writings during routine traffic stop	Illinois Federal Building	Truck bomb	2009
Hosam Smadi	Associated with terrorist website	Dallas, Texas skyscraper	Truck bomb	2009
Tarek Mehanna	Information from informant and associated with known terror suspect	Malls, US soldiers, and US government officials	Assault weapons	2009
Umar Farouk Abdulmutallab	Direct intervention by citizens	Airliner	TATP underwear bomb	2009
Faisal Shahzad	Community tip	Times Square	Truck bomb	2010
Printer Bomb Plot	Foreign intelligence cooperation	Chicago area synagogues	IEDs	2011
Small Drone Plot	FBI undercover operation	Pentagon	Small drones, IEDs, and Fedeyeen-style attack	2011



None of the thirty-four plots included any credible plan for using weapons of mass destruction, either. The majority would have used conventional bombs or improvised explosive devices (IEDs). Another three would have used larger truck bombs. Seven of the plots would have used conventional assault weapons and two would have attacked with conventional grenades. In another two cases, plotters hoped to get their hands on a grenade launcher or a stinger missile launcher promised disingenuously by an FBI informant. And, in two cases, terror suspects were alleged to have concocted schemes to use “dirty bombs” even though they had no access to the bombs or the materials to make them.⁴²

This pattern of attacking and plotting against symbolic buildings, transportation targets, and other government assets with conventional guns and explosives has held not just in the United States, but throughout the world. With the exception of Iraqi insurgent and sectarian attacks (which most experts would not classify as terrorism, but insurgency) on oil infrastructure, roads and bridges, and some water infrastructure, hirabi attacks have targeted military, government, and transportation targets and some brand name hotels frequented by westerners.⁴³ Virtually all of these attacks have been carried out using explosives and assault weapons. No nuclear or radiological attacks have been attempted. No biological

attacks have been attempted. No large-scale chemical attacks have been attempted.^{44 45}

To understand why hirabi terrorists have pursued particular attack strategies and what sorts of attacks they are likely to pursue in the future, we must first understand what they are trying to do. What are their overall goals? What strategies are they employing to achieve them? And how do some targets and some styles of attack advance those strategies better than others? Answers to these questions begin to explain why hirabi terrorists have not been more lethal in the past, and even suggest that their present and future efforts may be significantly hampered by political changes beyond their control.



III. WHAT HIRABI TERRORISTS ARE TRYING TO DO

Hirabi terrorist groups are motivated by ambitions to replace secular regimes in Muslim-majority countries with fundamentalist Islamic theocracies. Some even hope these theocracies will join together into larger regional Islamic governments, or even a fundamentalist caliphate spanning northern Africa, the Middle East, and parts of Central and South Asia (though there appears to be little agreement about who would lead such a caliphate, what interpretation of Islamic law would predominate, etc). To realize even the initial phases of their vision, hirabis must not only topple existing regimes in Muslim-majority countries, they must do so by (or while) uniting broad swaths of the Muslim population behind their goals. These imperatives strongly influence hirabis' strategic use of terrorism.⁴⁶



A POLARIZATION AND RECRUITMENT STRATEGY

Contrary to common misunderstandings, hirabis primary strategy is not based simply on killing innocents to coerce targeted states; its primary objective is to recruit followers and supporters in order to grow the hirabi movement. The hirabi approach is not new either. It is just a particularly violent strain of a strategy used by numerically weaker insurrectionist groups for centuries.⁴⁷ The strategy, regardless of whether it employs terrorist tactics, is primarily aimed at winning converts in

a war of ideas with the state. The battlefields of that discursive war are the minds of people who could sympathize with some of the goals of the aspiring revolutionary group but might tend to believe those goals are better (or more safely) pursued through the political channels of a state they see as more legitimate. To win the support of these people, rebel groups create security disturbances in ways that undermine state legitimacy in so far as they 1) show that the state is more vulnerable than people imagine (discrediting the state's well-crafted image of unrivaled social control), and 2) provoke state repression that negatively impacts the people the revolutionary group wishes to convert to its camp.

A particularly nonviolent form of this polarization/recruitment strategy was effectively used in Egypt when large crowds of protestors disrupted normal economic and government functions, provoking the state to disperse them. Police forces were overwhelmed, showing the state's weakness. News coverage of the events raised the polarizing question throughout Egyptian society: "are you with the protestors or the Mubarak regime?" And when the Egyptian military answered that it was with the protestors, or at least unwilling to violently disperse them for Mubarak's sake, the revolution was a *fait accompli*. A functionally equivalent strategy based on polarization and recruitment marks the histories of most

countries conceived in the crucible of popular revolution.

The efficacy of such a rebel strategy (regardless of violent or terrorist tactics) depends on a few factors:

1. the salience of the rebel group's cause in the minds of the population it hopes will support it (we will call this population the prospective constituency),
2. the degree of preexisting rift between the aspiring rebels' prospective constituency and the state (and its supporters),
3. the prospective constituency's perception of the legitimacy of the state's response to rebel activity, which often depends on,
4. the state's ability to recognize and avoid the trap that the rebel group has designed for them, and, finally,
5. the international community's degree of support for the aspiring revolutionary group's cause.

Rebel groups sometimes employ provocative violence or even terrorism when conditions 1 & 2 only yield soft support for their cause. Direct attacks on the state or its supporters, in the name of a prospective constituency, often inspire state reactions against the prospective constituency (depending on factor 4), increasing the valence of factors 1, 2, and 5, while decreasing the valence of factor 3. A series of

successful attacks can iteratively build support for the rebel forces until revolutionary mass action becomes feasible.

THE ORIGIN OF MILITANT HIRABI STRATEGY

Hirabis' strategy of driving wedges between states and their populations has developed over a long period, beginning when early and middle 20th century rebel movements sought to replace postcolonial secular authoritarian governments with states modeled on the political system of Islam's Prophet Mohammed. Many of those movements — typified by the early Muslim Brotherhood under the leadership of its founder Hassan al Banna — were initially nonviolent. But as they were repressed from the political field, splinter groups formed and dedicated themselves to achieving their ends through violent jihad, or even hirabah.⁴⁸

Decades of sporadic rebel violence in Egypt, Algeria, Syria, and elsewhere in the region — sometimes including terrorist attacks and assassinations — produced moderate success. Not only did Middle Eastern secular states appear unable to provide general safety, their security forces' violent dragnets and torturing of hundreds of political dissidents and innocents resulted in considerable public discontent and nostalgia for a (perhaps mythical) Islamic republic that could save them from unjust government abuses.



But despite the rebel groups' successes, they also experienced setbacks. The groups described their actions as "jihad" because they wanted people to see their means, in addition to their ends, as legitimately "Islamic." But the religious justification for their use of violence was debated from the start.⁴⁹ Many in the public did not support their methods or the extremity of their political vision. Poorly targeted attacks, like Egyptian Islamic Jihad's (EIJ) accidental killing of an innocent schoolgirl during an assassination attempt on Prime Minister Atif Sidqi, repulsed many members of the public, undermining the appeal of the groups and their violent campaigns.

In addition, populations became so fearful of the state's firm authoritarian response that they did not rise up into Iranian-style Islamic revolution as the rebel groups had hoped, but instead largely withdrew from political life and counseled their sons and daughters to stay away from political activity that could lead to trouble. The 1997 Luxor Massacres, in which the militant group Ga'ma Islamiyya used machetes and guns to kill over fifty international tourists including children and honeymooning couples, generated deep and widespread public revulsion that probably placed the final nail in the coffin of the militant Islamist movement in Egypt.⁵⁰

As jihadi and hirabi rebel movements sputtered in their home countries throughout the 1980s, many of their fighters were drawn to

Afghanistan to fight off the Soviet invasion there. Several autocratic Middle Eastern and North African (MENA) states even supported the migration of militant groups to Afghanistan. By sponsoring the Afghan jihad with fighters and weapons, the states won credibility with their Islamic populations while sending dangerous internal enemies thousands of miles away. Similar exports of jihadi fighters occurred during the Balkans Wars and flare-ups in the Russian/Chechen conflicts throughout the 1990s.⁵¹

But as the Soviets were repulsed from Afghanistan in 1989, victorious mujahedeen from all over the MENA and Central Asian regions had nowhere in particular to apply their newly developed skills. Among them, a debate emerged about what to do next. Many wished to return to their homelands and offer their new guerrilla tactics and fighting acumen to local rebel movements. Other leaders in Afghanistan had a larger vision for the mujahedeen. Osama Bin Laden and his partner in Afghanistan, Abdullah Azzam, agreed that the fighters should capitalize on their victory against the Soviet superpower by working to unite all of the disparate local movements seeking strict Islamic theocracy. Azzam, a widely influential and charismatic leader among the victorious mujahedeen, believed the fighters should focus on rebuilding Afghanistan to make it into a truly Islamic state and then lead a campaign to destroy



Israel. Bin Laden believed the fighters should unite against a more powerful common enemy with ties to governments throughout the region — the United States. In his opinion, the hated secular autocratic regimes of the Arab world were only surviving thanks to US backing. Expel US influence from the region, he thought, and the apostate regimes would easily topple.

Abdullah Azzam rejected Bin Laden’s position on strategic and religious grounds. Not only did a battle against the extremely wealthy and powerful United States seem unwinnable to him, it also contravened religious text relating to just war — text that prioritizes fights in Muslim (or formerly Muslim) lands far higher than those with enemies abroad.⁵² But Azzam’s debate with Bin Laden ended in late 1989 when he was killed by an IED. As Ali Soufan notes: “Responsibility [for the IED] was never assigned, but it was suspected that Zawahiri [who was becoming increasingly close to Bin Laden and would eventually become his deputy and successor] was connected. While before Azzam’s death Zawahiri had denounced him in public, after his death he pretended they had been the best of friends.”⁵³

Many mujahedeen had agreed with Azzam, and chose to return to their home countries to struggle against their local governments rather than join Bin Laden. But the well-resourced Saudi Arabian pressed on with his plan to

fight the United States, creating training camps in which practice targets were identified as US soldiers and trainees were schooled in anti-American ideology and history. In 1990, he returned to Saudi Arabian, offering to rally the remaining mujahedeen to defend his homeland against the threatened aggression of Saddam Hussein. The Saudi royal family rebuffed his offer and invited the United States to defend them instead. This was not just a personal affront in Bin Laden’s opinion; inviting armed ‘infidels’ into the land of Mecca and Medina sacrilegiously abetted an invasion of Islam’s holiest lands. He denounced the Saudis. And they shunned him in return, forcing his escape to Sudan.

There, Bin Laden built momentum behind his anti-American approach, establishing a web of front corporations to distribute money and weapons to militant groups in exchange for influence over their goals and strategies. By that time, Bin Laden’s network had fully incorporated Zawahiri’s Egyptian Islamic Jihad, so when the EIJ was expelled from Sudan after attempting to assassinate Egypt’s President Mubarak, Zawahiri and then Bin Laden moved back to Afghanistan to rebuild their organization under the protection of the Taliban’s Mullah Omar. Within months of returning to Afghanistan in 1996, Bin Laden doubled down on his anti-American strategy, publicly declaring war on the United States via the London-based Arabic newspaper *Al*



Quds Al Arabi. The Taliban’s Mullah Omar, reportedly, was not happy with Bin Laden’s unilateral announcement, but he did not expel or extradite Bin Laden either.⁵⁴

**THE NESTED POLARIZATION
AND RECRUITMENT
STRATEGY – TARGETING
ENEMIES NEAR AND FAR**

Bin Laden’s anti-American strategy found a home in Afghanistan. Combined with the local strategies of the groups in his network, a nested polarization and recruitment strategy was emerging. Local groups would provoke “near enemy” government reprisals at home, undermining their legitimacy and sowing fear and discontent among their publics. Attacks against the American “far enemy” would pressure them to retreat from Muslim lands and politics, leaving “near enemy” client governments weakened — easy prey for local militant groups.

In the immediate aftermath of 9/11, though, Bin Laden’s strategy appeared to be a bust. He had predicted that the United States would withdraw from the region, as it had withdrawn from Somalia after the ‘Blackhawk Down’ incident in Mogadishu in 1993. Al Qaeda apparently made no plans for a robust invasion of Afghanistan and did not foresee the defeat of their Taliban hosts — the only government in the world operating according to their strict interpretation of Islam.⁵⁵ Bin

Laden’s televised call to arms on October 7, 2011 was almost entirely unheeded by Muslim masses, who at least tacitly supported their governments’ anti-terror efforts. And the United States was quickly destroying Bin Laden’s training camps and chasing him to what appeared to be his capture or death. Holed up and surrounded in the caves of Tora Bora, Bin Laden reportedly apologized to his soldiers for “getting [them] involved in [the] battle,” offered them his blessing if they would like to surrender,⁵⁶ and even updated his will.⁵⁷

But when Special Forces and the CIA requested reinforcements to aggressively pursue Bin Laden, commanders in Washington (who according to some reports were distracted by the task of drawing up battle plans for Iraq) rejected those requests.⁵⁸ By relying on unmotivated, unreliable Afghan warlords and Pakistani security forces to seal the border to Pakistan, senior US commanders and the White House, many have concluded, allowed Bin Laden and hundreds of his men to quietly sneak into Pakistan.⁵⁹

With the invasion of Iraq imminent, Bin Laden and al Qaeda quickly recast their two-tiered strategy. Harkening back to his 1996, “Declaration of War Against the Americans Who Occupy the Land of the Two Holy Mosques” in which Bin Laden argued that foreign occupations could “provoke the people of the country...and push ... them to take up armed struggle against the invaders occupying



the land,” he sought to transform the invasion of Iraq into a Muslim *casus belli*. Abu Bakr al Naji, a prominent hirabi strategist and author of *The Management of Barbarism*, a grand strategy for global hirabi rebellion, explained:

“The solution [to the problem of the failed attempts to oust pro-Western regimes] is to provoke a superpower into invading the Middle East directly. This will result in a great propaganda victory for the “jihadis” because the people will:

1. be impressed that the “jihadis” are directly fighting a superpower,
2. be outraged over the invasion of a foreign power,
3. be disabused of the notion that the superpower is invincible the longer the war goes on, and,
4. be angry at the proxy governments [i.e., secular regimes] allied with the invading superpower.”⁶⁰

The US invasion of Iraq fit Bin Laden’s updated strategy precisely. It required tens of thousands of allied ground troops who provided easy targets for guerrilla fighters, enraged Iraqi and other Muslim populations, and even led to inflammatory abuses of Muslims like those documented at Abu Ghraib prison.

The nested near and far enemy strategy also produced other benefits exploited by hirabi terrorists as they honed their craft. First, while local attacks tended only to build momentum within one nation or a small region, transnational attacks seized global headlines and seeded the minds of a new wave of disaffected youth Marc Sageman calls, “wannabe holy warriors.”⁶¹ Second, the war in Iraq provided a training ground to replace the training camps destroyed in Afghanistan. Hundreds of people have now learned how to create and deploy IEDs and carry out guerrilla tactics that, if motivated, they can use outside of the Iraqi conflict zone. Third, direct attacks on “far enemies” like the United States and the United Kingdom have provoked repressive domestic reactions by those states that have resulted in significant public disenchantment with the government. In particular, coercive counterterrorism tactics like “enhanced interrogation techniques,” a controversial war in Iraq, prisoner abuse, domestic spying, and incursions on ancient civil liberties caused some around the world, including American citizens, to question the benevolence of Washington’s motives. Such state reactions can create relationships of mutual suspicion and antagonism between governments and the governed — poisoned relationships that may, in part, contribute to so-called ‘home-grown’ terrorism.



IV. A SPECTACLE FOR TWO AUDIENCES (PLUS A THIRD)

To succeed with a strategy based on polarizing the state and prospective followers, optimal terrorist attacks must grab and hold the attention of both groups long enough to convey the messages designed for each. While terrorism has been employed for centuries, it has become especially popular since the advent of mass media, particularly television and the internet. If a picture is worth a thousand words, instant transmission of audio/video to audiences around the world may be worth a billion.



The attacks of September 11th provide an excellent case in point. On that day, terrorists hijacked airliners and steered them into the most prominent symbols of American economic and military power, creating television footage that included horrific fireballs, smoldering buildings, people diving from skyscrapers, and eventually the collapse of the two tallest towers in the United States.

The message to Americans was clear: “You cannot take your luxurious lifestyles, or your global economic and military prominence for granted. We will die and kill to thwart your ambitions and raise the cost of your meddling in the affairs of Muslim-majority countries. And we will pursue you even to the very sources of your power.”

The message to hirabis’ prospective constituency was something like: “America’s military power and its political and economic

dominance are significant causes of your suffering. We are fighting in your name and for your honor against the greatest economic and military power the world has ever seen. And we are taking the fight into their home, to the very sources of their wealth and might. Join us and we will avenge all of our brethren who have suffered because of Western influence in our region.”⁶²

Both of these messages were heard by both audiences and their respective reactions were amplified, broadcast, and fed back into the process of meaning-making surrounding the events. Many Americans were disgusted by the tiny pockets of support for the attacks in some Muslim-majority countries. Many Muslims, for their part, were disgusted by some Americans’ expressions of Islamophobia after the events. Such distorted echoes carry through media feedback loops and can exacerbate the very sort of polarization terrorists seek to create.

Elites’ translation of events, too, can also contribute to increased polarization. The Bush Administration’s oft-repeated refrain about “evildoers” committing the attacks because they “hate our freedom,” though successfully side-stepping discussion about America’s activities in the MENA region, was probably too vague, fueling uninformed and often hysterical speculation about who exactly hated our freedoms and why. Among Muslims, such statements were often experienced as offen-

sively simplistic since they ignored what many nonviolent Muslims considered legitimate grievances.

The failure to offer clear and realistic counternarratives to those offered by terrorists can open the door to far-fetched, but psychologically cathartic accounts of the events that only tend to increase the polarization terrorists seek. Samuel Huntington’s “clash of civilizations” thesis provides the most popular and seemingly legitimate example of separate groups’ tendencies (discussed more thoroughly below) to exaggerate the differences between them, while failing to recognize the diversity, heterogeneity, and structural complexity in each group.⁶³ When these group-based psychological mechanisms are operating, terrorists can easily amplify them, exacerbating the polarization that fuels their cause.

**THE TARGETED AUDIENCE:
HOW INTERGROUP
PSYCHOLOGY PRODUCES
UNHELPFUL RESPONSES
TO TERRORISM**

Though hirabis have been especially poor at executing their latest attempted attacks — failing to detonate weapons in all of their last three attempts — they have provoked precisely the kinds of polarizing reactions they hoped for. When Farouk Abdulmutallab tried and failed to down a jetliner on Christmas Day, the US government responded by sin-

gling out people from Muslim-majority countries for increased scanning at airports around the world. After Faisal Shahzad lit up his dud of a truck bomb in Times Square, policymakers and talking heads raised a fuss about an interfaith (but primarily Muslim) cultural center to be erected blocks away from the site of the former World Trade Center towers. As al Qaeda in the Arabian Peninsula sent printer cartridge bombs to Detroit, some American lawmakers called for legislation preventing Sha’ria law from supplanting the American Constitution. Throughout all these events, a fringe group of pundits claimed the current presidential administration was coddling or participating in an Islamic conspiracy to take over the United States.⁶⁴

While many Americans saw this Islamophobia as unseemly or ridiculous, many others easily participated in the polarization hirabis sought to inspire. Polls measuring Americans’ support for the construction of a multi-faith cultural center blocks from Ground Zero quickly shifted in the fall of 2010 as a few bloggers characterized the center as a “Victory Mosque” intended to taunt the United States. Attempts by the center’s imam to explain his record of, and commitment to, building interfaith coalitions did not neutralize opponents’ beliefs. They insisted that Muslims cannot be taken on their word, citing as evidence a Qu’ranic verse in which the Prophet



Mohammed instructed a subordinate in his army to deceive their enemy.

Such reactions are not at all unique, of course. A broad and deep literature on in-group/out-group relations predicts not only that many (or most) humans exaggerate and focus in on the differences between separate groups,⁶⁵ but also that they are much more likely to do so when they feel threatened by, or are in apparent conflict with, an out-group.⁶⁶ Various strands of in-group/out-group research, from Henri Tajfel's "Social Identity Theory" through Jim Sidanius's and Felicia Pratto's "Social Dominance Theory"⁶⁷ have demonstrated through experimental and field studies that humans are relatively "hard-wired" to see out-groups through distorted lenses.

Cognitive scientists interested in ethnocentrism and intergroup perceptions suggest that while prejudicial stereotyping is usually not rational from an objective or scientific perspective (i.e., many or most ethnic stereotypes are substantially incorrect and unhelpful), the process whereby beliefs about out-group members are collated is "subjectively rational" in so far as it offers the individual mental shortcuts that allow him or her to process the world with less effort.⁶⁸

According to this Social Cognitive Theory⁶⁹ the ability to efficiently distill meaning from a complex and dynamic world derives from

mental processes humans use to organize reality at a categorical conceptual level, which, in turn, allows us to infer properties of individuals from the categories to which they belong.⁷⁰ This cognitive classification process is extremely useful and efficient in the realm of inanimate objects, but it is identical in form to the stereotyping process we often use with our much more complex fellow humans. In that domain, our categories, and inferences based upon these categories, often break down. Stereotyping often causes policymakers and the general public to violate Sun Tzu's first rule of conflict: "Know Thy Enemy." Worse, as in the present case, it often causes people to mistake friends for enemies.

In some cases, intergroup prejudices might be useful and adaptive. Rallying against a common foe can productively increase in-group cohesion.⁷¹ But the conditions required to trigger intergroup rivalry and in-group cohesion are shockingly minimal and often irrational. The mere dividing of experimental subjects into groups named "A" and "B" can inspire intergroup competition and differentiation.⁷² And Tajfel's Social Identity Theory research shows that in situations of intergroup comparison (whether cooperation, competition, or conflict), in-group members will attempt to maximize the distinctiveness of their group *even when that entails an absolute loss of social or economic resources for their own group.*⁷³ Follow-up studies have shown that



these self-inflicted wounds are ignored by participants and that they actually report feeling better about themselves after sacrificing utility to exclude or harm out-group members.⁷⁴ The findings from decades of research into inter-group psychology suggest that humans easily engage in group-affirming conflict even when there is little rational basis for doing so.

In the context of terrorist attacks executed in the name of some out-group, these findings predict that in-group member responses will focus on achieving greater separation from and punishment of those out-group members, even to the detriment of other priorities, like achieving optimal security outcomes. These very human reactions to intergroup competition or conflict, of course, play directly into terrorists' polarization strategies. Though more study could be done, a number of authors have posited that such reactions underlie the comparatively poor record mass-democratic countries have had dealing with terrorism.⁷⁵ While autocratic regimes sometimes respond to political violence with a dispassionate calculation of their strategic interests, elected officials are often rewarded when they respond to terrorism with policies that express the outrage (and misperceptions) of their electorates, with the best of them learning to resist such expressionist impulses over time.⁷⁶

NOT ALWAYS BOOSTING POLARIZATION

The broad findings of research into intergroup competition and conflict strongly suggest that group psychology itself is one of the factors increasing the longevity of, and damage wrought by, terrorism campaigns. To illustrate how terrorist groups' polarization can flourish or fizzle based on the targeted populations' group-psychological response, we compare the intergroup dynamics of two militant theocratic campaigns in the United States: one led by Christian theocrats, one by Muslim theocrats.

The United States has suffered well over a century of terrorism from groups claiming to fight for Christendom. The Ku Klux Klan, The Army of God, The Lambs of Christ, The Covenant the Sword and the Arm of the Lord, Defensive Action, Hutaree, and several other groups associated with the "Christian Identity" or "Christian Patriot" movements have wreaked episodic havoc on US citizens for generations, killing many more people than have been killed in the United States by Muslim terrorists. Yet, terrorism claiming inspiration from a Christian God (all else being equal) is much less likely to incite polarizing reactions from the American public and its policymakers. This is so because the members of violent Christian theocracy movements seek to recruit a prospective constituency (Christians) that the vast majority of



Americans perceive to be a significantly complex and incoherent category sharing ascriptive characteristics broadly diffused throughout American society. Simply put, the prospective constituency such violent Christian fundamentalist groups want to enlist are not an apparently coherent out-group around which Americans can generate credible fear-based stereotypes, much less mobilize for policies designed to isolate, surveil, and control them. Consequently, Americans' responses to Christian theocratic terrorism have provided little to no traction or momentum for that terrorist movement.

By contrast, hirabis' prospective constituency is an easy target for misunderstanding and mistreatment. Many Americans mistakenly believe that Muslims courted by terrorists are identifiable by the ascriptive characteristics of Arab or South Asian heritage, like brown skin. Actually, according to the research of Duke University professor David Schanzer and his colleagues, people charged for crimes related to hirabi terrorism in America are only slightly (and insignificantly) more likely to be of Arab descent than of African- or Caucasian-American heritage; and equal numbers of South Asians and African-Americans have volunteered for hirabah since 9/11.⁷⁷

Also, most US citizens' knowledge of Muslims goes little further than the fact that the 9/11 hijackers were Muslim, and apparently be-

lieved their actions would be regarded as heroic by their coreligionists and God. Such limited and emotionally 'hot' information tends to swamp new information about the category, the precise thing that can help to break down harmful stereotypes (or at least make them more complex, flexible, and productive.)⁷⁸ Studies show that the most effective way to dismantle inaccurate stereotypes is through increased cooperative contact with outgroup members.⁷⁹ But apart from those familiar with public intellectual Fared Zakaria, basketball player Kareem Abdul Jabbar, Congressman Keith Ellison, or comedian Dave Chappelle, most Americans witness few exemplars of the moderate and modernizing majority of Muslims.

With Arab and South Asian Muslims comprising only about One percent of the American population, often isolated in diaspora communities, there may have been few groups in American society better situated for the ostracizing that would result if a terrorist group executed an attack in their name. If a terrorist group purporting to speak for Christians, African-Americans, Latinos, Japanese, Native Americans, or most any other group found in US society had carried out the 9/11 attacks, Americans' familiarity with the prospective constituency would have substantially mitigated any rush to judge it as suspicious, frightening, or deserving of invasive surveillance and security measures. But with the



relatively recent (20th century) immigration of Arabs and South Asians into the United States, the testy relationship between US ally Israel and its Arab neighbors, and the media bias towards reporting spectacular tragedies everywhere, including from the Middle East, Americans have not been conditioned to regard Muslims (if, and when, they do regard Muslims) with ease and understanding. That the events of 9/11 were purportedly carried out in the name of Islam almost guaranteed that policy responses would offer hirabis strong polarizing effects with which to fertilize their movement.

Fortunately, even though the last decade has not witnessed a great deal of learning among the US public — polls show that Americans’ anxiety about Muslims have attenuated little since October 2001⁸⁰ — the United States security apparatus has abandoned many of its most polarizing September 12th policies. The FBI quit its controversial “Interview Project,” which submitted American residents from Muslim-majority countries to a barrage of alienating questions about their commitment to fundamentalist distortions of Islam.

Immigration and Customs Enforcement (ICE) scaled back and eventually abandoned its National Security Exit-Entry Registration System that placed young men from Muslim-majority countries on de facto federal probation. And the Transportation Security Agency (TSA) has significantly reformed its

passenger prescreening system and no-fly lists to avoid unnecessarily polarizing communities no more likely to identify with hirabism than the typical Christian is to identify with Christian theocratic terrorism.

THE PROSPECTIVE CONSTITUENCY: TURNING THEIR BACKS ON HIRABAH

To inspire new recruits and the general support of their prospective constituency, terrorists attempt to describe their acts as heroic. Heroes, in popular mythologies around the world, usually achieve unimagined success against great odds, often through self-sacrifice. Since terrorists are almost always facing great odds, they can easily satisfy one condition of the heroic “underdog” role. But to avoid seeming like mere troublemakers or mass-murderers they must also appear to act on behalf of their prospective constituency. Hirabis, therefore, attempt to project an image of themselves and their actions as consonant with the prevailing values framework of the Muslim communities they wish to recruit.

Hirabis tell a self-narrative that attempts to compare their acts to the fighting of honorable holy war, which has an illustrious tradition in Islam. The Prophet Mohammed is celebrated by Muslims not only for his military prowess, but also for his wisdom and mercy during conflict. Islamic narratives of gentle-



manly warfare carried forward through Saladin's repulsion of the European Crusaders in the 9th century (which inspired great admiration even from his imprisoned Christian adversaries) and into the present day. Hirabi militants seeking to identify themselves with these examples are sure to offer some (even obtuse) warning to their victims. And they nearly always describe their attacks as defensive or retaliatory, referencing the plight of Palestinians in Israel, Iraqis under UN sanctions, Chechens vying for independence from Russia, or even Bosnians, who they felt were unfairly disarmed by NATO forces during the Balkans Wars. Even the attacks of September 11th were justified as defensive operations. And in his address to Americans immediately before the 2004 presidential elections, Bin Laden offered an alternative course of action (electing John Kerry) to Americans interested in a cessation of violence: "fulfilling the 'duty to retreat' element of the self-defense argument."⁸¹ Osama Bin Laden, early in his career, even anointed himself a religious scholar so that he could issue his own *fatwas*.⁸²

Right now, though, the receptivity of Muslim audiences to the hirabi narrative may be at its lowest point ever. The years of violence targeting Muslims have eroded nearly all legitimacy hirabi groups held with pockets of the faithful.⁸³ And the largely nonviolent uprisings of the Arab Spring (and Summer, Fall, and Winter) have offered men and women of the

region far more hope for political change than decades of hirabi violence ever did.

To be clear, the goal of creating hard-nosed Islamic theocracy has never been especially popular in the region anyway. Though polls of Muslims often show significant support for basing legislation on interpretations of founding Islamic texts and parables (just as US polls show that the majority of Americans support basing legislation on the Bible and Ten Commandments),⁸⁴ large majorities in predominantly Muslim countries reject the notion that government should be run by clerics or based entirely on the most stringent interpretations of Sha'ria law.^{85 86} Even more yearn for democratic institutions and basic liberties like freedom of speech and political association.⁸⁷ These majorities have never even supported the extreme goals of the hirabi movement, setting aside questions of its tactics.

Furthermore, only a small minority of the minority who do support fundamentalist theocracy continue to embrace violence against civilians as a means to achieve it.⁸⁸ Similarly-minded activists who share some of the hirabi vision but disagree with their approach present perhaps the greatest obstacle to the long-term survival and success of hirabi terrorist groups. These nonviolent theocrats call for revolutionary mass action, even using the rhetoric of jihad. But because they disavow terrorist tactics, they are able to steer



potential hirabi sympathizers away from violent pathways.

Islamist theocrats' turn from violence and embrace of political action has been building momentum for years now. Former Director of National Intelligence Mike McConnell reported to Congress in 2008 that, "Over the past year, a number of religious leaders and fellow extremists who once had significant influence with al Qaeda have publicly criticized it and its affiliates for the use of violence." Of those religious leaders and fellow extremists, journalists Peter Bergen and Paul Cruikshank have highlighted public disavowals coming from former leader of the Libyan Islamic Fighting Group, Noman Benotman; father of the Saudi fundamentalist religious revival (known as "the Sahwa") and fierce opponent of any "infidel" occupation of Muslim lands, Sheikh Salman Al Oudah; former Zawahiri mentor and Islamic scholar Sayyid Imam Al Sharif (aka Dr. Fadl); former supporter of Bin Laden and al Qaeda, Imam Usama Hassan; former al Qaeda recruit, Hanif Qadir; and former mujahedeen fighter, Abdullah Anas.⁸⁹ As fundamentalist Islamists peel off from the hirabi movement, they offer alternative courses of action to others who may be drawn to some aspects of the hirabi narrative, but are uncomfortable with the violence they perpetrate.

Islamist theocrats' transition to nonviolent politics has accelerated further with the events

of the Arab Spring. Not only are nonviolent Islamist groups, once banned from the political arena, gearing up for elections where they stand a real chance of winning influential blocs in new governments, many violent Islamist groups are laying down their arms to engage in the newly opened political field. Even al Gama'a Islamiyya, a faction of which was allied with al Qaeda, has sworn off violence and formed its own political party in Egypt. As nonviolent political engagement becomes increasingly viable, hirabi approaches become increasingly irrelevant.⁹⁰

As terrorism scholar Olivier Roy conceives it, many members of the hirabi movement may have never shared the dream of a fundamentalist Islamic utopia anyway.⁹¹ Studies show that most recruits are no more pious than their nonviolent peers, and often less so.⁹² Instead, Roy argues, they appear to have joined the movement they thought was best able to throw off the yoke of dominant and pathological political and economic institutions they perceived to be emanating from the West. The hirabi movement may still appeal to some of these individuals if it can portray Western influence as a major cause of people's problems and its anti-Western agenda as the only solution. But competing revolutionary movements, even secular ones, are likely to sap strength from that narrative. They may not be able to promise their most outraged neophytes opportunities for extremely violent adventure, but as recent



history has shown, they can offer higher prospects of success and a sort of struggle most disaffected youths will find more salutary and vivifying than committing spectacular mass murder. To the extent that competing revolutionary movements (of any ilk) are popular, viable, and promising, observers can expect them to siphon support from terrorist groups also seeking political upheaval.

RANK AND FILE HIRABIS: MAINTAINING MORALE

While hirabis are performing for the two different audiences they seek to polarize, they are also performing for themselves and each other. The life of a terrorist, as we discuss in Section VI, is not easy. Material rewards are scarce, and life underground and on the run is very challenging. Maintaining morale is difficult, but it tends to spike with the adrenaline-filled celebration of a successful attack. Bruce Hoffman has chronicled various former terrorists' descriptions of this "rush," but it may be captured best by Menachem Begin's reappropriation of Descartes' "existential proof." As Begin put it: "We fight, therefore we are!"⁹³

Though sometimes overlooked in threat assessments, the notion that morale plays a part in terrorist attacks is not new. Ami Pedhazur has shown how a rise in Palestinian suicide bombing was driven more by intra-terrorist competition for prestige than

anything else.⁹⁴ And Max Abrahms has argued that grizzled and specialized terrorists, at some point, become so dedicated to their craft and their fellows that their specific cause or strategy matters less to them than continuing the fight.⁹⁵ Ralph Dowling has gone so far as to argue that displaying self-relevance is the primary goal of most terrorist groups.⁹⁶ Indeed, the 1990s literature on "new terrorism" frequently supposed that terrorists' ambitions were substantially narcissistic (which only added to their incommensurable unreality.)

All of these works point to the conclusion that what terrorists do to satisfy themselves can be disconnected from, and even harmful to, their larger strategies for winning over prospective constituents and provoking poorly targeted state repression. Recruits hungry for action sometimes wish to wantonly kill 'apostate' Muslims who lack their zeal, but only drive more Muslims away from their cause. Foolish terrorists focused on kill counts may want to devise ways to target their enemies' children or burn down their schools, provoking widespread public backlash. Daredevils may be more interested in pulling off a shocking stunt that impresses their peers than designing attacks that strategically move their enemies or prospective constituency.

Sometimes, leaders of terrorist groups find it necessary to allow this kind of activity. The summer of 2011 may have provided an excel-



lent case in point. With hirabis' prospective constituency absorbed in historic political developments not likely to be aided by violent campaigns, their near enemies (provisional governments) largely supported by those prospective constituencies, and their far enemy (the United States) answering provocations not with polarizing ground occupations but with surgical drone strikes, hirabis were performing before a nearly empty theater.

It is little surprise, then, that hirabis attempted to recruit new audiences in new theaters while allowing younger guns to run self-satisfyingly wild in the summer of 2011. At the same moment al Qaeda announced Bin Laden's successor, it also announced its renewed commitment to engage in battles in Somalia, Chechnya, and the Palestinian territories — places where its activity had been limited. Weeks later, al Qaeda in the Islamic Maghreb made news for reaching out to a militant Islamist group in Nigeria to try to gain a foothold there. And al Qaeda has strengthened its ties to al Shabaab. With these moves, al Qaeda increased the odds that it could become relevant in some territory.

To maintain hirabis' sense of self-relevance, al Qaeda's Iraqi affiliate also (probably) "greenlighted" multiple attacks there on the first day of Ramadan.⁹⁷ Neither al Qaeda in Iraq, nor al Qaeda Central has officially claimed the attacks, many of which — like the dragging of men from a mosque during

prayers to shoot them 'execution style' in the street — were both brutal and tone deaf in terms of propaganda. But allowing the bloodshed may have at least allowed some hirabis to feel they were doing something, anything, as history seemed to be passing them by. Such attacks may sustain hirabis for a time, but in strategic terms, they are comparable to eating one's own limbs to delay starvation. If hirabis remain unpopular with their prospective constituency while self-determinative political mechanisms continue to offer Muslims more promising avenues of political reform, they may face a slow death from lack of relevance.



V. THE METHODOICAL MADNESS OF HIRABI ATTACK DESIGN

To effectively communicate to their various audiences, hirabis not only attempt to explain their attacks as self-defensive and heroic, they choose their weapons and target sites with at least an intuitive understanding of how they will provoke target states, feed into recruitment narratives, reflect martial values that build member morale, generate spectacular media coverage, and produce maximal psychological impact on their audiences. Data (presented in Section II) show that hirabis have been most apt to hit government or symbolic buildings with bombs. But they also display a preoccupation with transportation targets — trains, buses, and especially planes. We suggest, against some commentators claims that terrorists attack “randomly” or “indiscriminately,”⁹⁸ that these targeting and weapons-use patterns, as well as the implicit attack-design schemas that produce them, are explicable and worthy of additional research. After discussing the factors that influence terrorist targeting, we illustrate how they combine to make airplanes the most highly valued targets of terrorist attacks.

EFFECTIVELY CALIBRATING TERRORIST ATTACKS: GOADING THE GIANT

The success of hirabi attacks depends heavily on their ability to provoke a larger and more powerful enemy to behave against its own interests. Designing and calibrating such

provocations is not a simple matter. An attack that is too small or ineffective may be ignored by counterterrorist forces. An attack that is too large or atrocious, or inappropriately targeted may inspire an overwhelming security reprisal and/or public revulsion, backlash against the terrorist group, and/or defection by members or allies unwilling to associate themselves with atrocities or withstand subsequent security pressures.

Al Qaeda’s internal communications display their concern with the task of calibrating their provocations.⁹⁹ Osama Bin Laden and his *Shura*¹⁰⁰ council even discussed the likelihood and extent of a US counterattack in the run up to 9/11.¹⁰¹ Early al Qaeda attacks on US interests, like the coordinated bombings of US embassies in Kenya and Tanzania, incited US missile strikes on Afghan targets and a pharmaceutical factory in Sudan believed to be associated with the production of chemical weapons, but did not drive the United States entirely from the region as intended. The attack on the USS Cole off the port of Aden, Yemen garnered no military response at all. At the time, incoming President George W. Bush said he was “tired of [a US policy toward al Qaeda that amounted to] swatting at flies.”¹⁰² The 9/11 attacks, however, overshot al Qaeda’s goal in terms of provocation, eliciting widespread international condemnation and an overwhelming NATO response that deci-



mated al Qaeda's Afghan organization and its Taliban hosts.¹⁰³

The notion that militant hirabis calibrate the lethality of their attack runs counter to the idea that terrorists attack with the goal of creating as many casualties as possible. These charges have been frequently leveled by authors who believe that hirabis attack not to influence human affairs or audiences, but to gain the favor of some vengeful deity. Some evidence supports claims that religious groups are more lethal than others. Bruce Hoffman has documented the fact that religious terrorist groups produce a disproportionate number of total terrorism deaths in most given years.¹⁰⁴ While this evidence is compelling, it is worth noting that some of the higher death toll associated with religious terrorism likely results from interreligious/interethnic communal violence in many parts of the world. The situation of two religious terrorist groups engaged in escalating conflict against each other is quite different from, and more lethal than, forms of terrorism targeting governments that often attempt to deescalate terror campaigns.

But even taking the evidence of disproportionate lethality at face value, many scholars who study terrorist behavior and communication conclude that hirabis are driven by substantially earthly ambitions, and are capable of savvy political calculation. According to Stanford Professor and terrorism expert Martha Crenshaw:

“groups claiming to act in the name of religious doctrine are often more apocalyptic in their rhetoric than in their behavior. They have often shown themselves to be astute political strategists, using terrorism successfully to drive out foreign military forces or disrupt peace processes. Hezbollah and Hamas are excellent examples, and al Qaeda's activities can also be interpreted in pragmatic terms. Acting in the name of religion does not mean acting without reason.”¹⁰⁵

A circumspect view of this matter might note that different terrorists likely orient toward their activity in different ways. Those in positions of strategic leadership may behave coolly and strategically, deploying religious justifications in service of a strategy seeking political power. Others, perhaps bellicose young recruits with the zeal of converts, may be driven more by some mix of youthful adventure seeking and “true religion.”¹⁰⁶

Internal al Qaeda documents, at least, reflect its leaders' awareness of the dangers of indiscriminate killing.¹⁰⁷ Ayman al Zawahiri's correspondence to Abu Zarqawi, admonishing him for the counterproductive effects of his grotesque brutality in Iraq, is famous in the terrorism literature.¹⁰⁸ And the Combating Terrorism Center's (CTC) report on al Qaeda's internal documents, “Harmony and Disharmony,” offers several other examples of



al Qaeda leadership stressing the need to control the violence of overzealous operatives and maintain an appreciation for public perceptions of their attacks.¹⁰⁹

These sources debunk the notion that hirabis are trying to kill as many people as possible. On the contrary, they are trying to garner particular audience responses as we have explained above. As the reaction to 9/11 taught many hirabis, bigger attacks are not always strategically better. Conventional bombs and guns, targeted to harm populations the government is sworn to protect, can significantly discredit state competence and provoke delegitimizing state reactions. But weapons that significantly escalate terrorism campaigns beyond what states have become accustomed to — like the attacks on 9/11, or feared biological, chemical, or nuclear attacks — may go too far, alienating potential supporters and garnering a hardline state response that large majorities see as entirely legitimate. As we discuss further in Section VII, many of the most feared weapons, like nuclear bombs and biological and chemical weapons, may work best when they are just used as bluffs.

EFFECTIVE RECRUITING AND MORALE BOOSTING

Hirabi attempts to narrate their attacks as self-defensive and compatible with Islam’s just war tradition provide more than an external justificatory façade; they penetrate hirabis’

self-understandings as well. Many hirabis see themselves as holy warriors on a path leading to heaven. Those volunteering to carry out operations seek glory in battle and, *inshallah* (if God wills it), a martyr’s death. These operatives probably gravitate to the use of bombs and guns that give them an exhilarating sense of doing battle. Silently releasing biological and chemical agents, by comparison, may generate relatively less excitement for trigger-men, in addition to violating norms of honorable war-fighting.

Of course, research shows that killing is more difficult for humans in practice than it is in theory.¹¹⁰ The same young recruits who were excellent videogame marksmen at home may lose their stomach for shooting when staring down the barrel at a live human, preferring instead to kill from a safe and impersonal distance. But just like modern militaries, militant groups use group pressure and leaders’ authority to normalize, valorize, and encourage killing.¹¹¹ Group-based martial values derived from such collective training and indoctrination probably lead many terrorists to prefer more conventionally-masculine battle using guns and explosives. Future interview studies with former hirabis might test and develop this hypothesis further.

MAXIMAL DISPERSION: CREATING A MEDIA SPECTACLE

Another potential problem with biological or chemical poisons is their relative weakness for



garnering media attention. As J.B. Bell wrote over thirty years ago, terrorists “are, in fact, television producers constructing a package so spectacular, so violent, so compelling that the networks, acting as executives, supplying the cameramen and the audience, cannot refuse the offer.”¹¹² But for these media spectacles to appeal to broadcast audiences, terrorists must deliver compelling visual footage. Earth-shattering explosions, buildings ablaze, bloodied, shell-shocked victims walking among the fallen, and gunmen mowing down panicked crowds all fit the bill. Severely ill people expiring from internal hemorrhaging offer comparatively little in the way of compelling footage. While any large-scale poisoning, if it can be accomplished (a subject to which we turn later), is sure to generate news commentary, it is less likely to produce the sort of visual propaganda that would be continually looped on 24-hour news channels, and therefore less likely to produce the sort of visceral trauma terrorists wish to create.

MAXIMAL PSYCHOLOGICAL IMPACT: TARGETING HUMAN EMOTIONAL SYSTEMS

Terrorists have not only developed an intuition about the media and political impacts of their targets, they also choose their weapons with an eye for their psychological impacts. Bombs create a spectacle for almost all the senses — sight, hearing, touch, and smell.

Within split seconds victims and bystanders see an incredible flash, hear a boom of thunder, feel a bursting shockwave of heat and fire, and smell the acrid stench of burning fuel and flesh. The extreme nature of these sensual traumas can create new neurons imprinted with the details of the survivors’ situation in the moment immediately before and as the blast occurs — a neurophysiological adaptation designed to warn them away from similar future dangers.¹¹³ The crack of gunfire, emitting from the second most used tool of terrorism, can be similarly shocking to the senses. Indeed, the famous behavioral scientist J.B. Watson identified loud noises as one of humanity’s three innate fears.¹¹⁴

Other weapons, dreaded but rarely used, lack these sense-shaking characteristics. Poisons and biological agents are usually entirely undetectable to the senses. Though they might increase dread of terrorism in the abstract, these weapons have less impact on the neurophysiology of survivors. And while they may be useful on a small scale for assassinations, they are less adept at inciting the sorts of spectacular traumas that coerce policymakers and publics.

OTHER FACTORS: CATASTROPHIC SUCCESS, ATTRITION

We believe the above categories capture the major factors that influence terrorists’ (espe-



cially hirabis’) selection of weapons and targets, but others may also have an impact. It is possible that terrorists consider the intensity trajectory of their attacks, seeking to project a constant upward momentum. Thus, some authors have attempted to explain al Qaeda’s failure to execute another major attack on American soil since 9/11 as a function of their “catastrophic success” on that day. The attack is said to have been too good to be topped. Others have argued that hirabis are likely to choose targets to advance al Qaeda’s stated attrition strategy, one based on bleeding the US economically, much as many hirabis believe the mujahedeen successfully bled the Soviet Union (though almost all historians would rate the failed Afghan invasion as a minor cause for the collapse of the USSR). While these factors may have some influence on the hirabi targeting calculus, we suggest that they are only secondary concerns, at best.

First, a number of attempted plots since 9/11 debunk the notion that al Qaeda, its affiliates, and other hirabi groups are unwilling to execute attacks smaller than 9/11. Indeed, Richard Reid’s, Farouk Abdulmutallab’s, Nidal Hassan’s, and Faisal Shahzad’s plots, as well as the printer bomb plot, would have been smaller in scale than 9/11. These and other plots offer a wealth of evidence that hirabis continue to attempt attacks of any size as soon as they are operationally feasible.

As for attrition, while al Qaeda’s rhetoric, indeed, frequently references the bleeding of America’s economy and morale, there is little evidence that attrition guides their targeting choices. If hirabis’ targeting choices were driven by attrition, we would expect many more attacks on infrastructure critical to the US economy. Instead, hirabis still design attacks to create fearful spectacles. They do tend to trot out notions of “attrition” when attacks fail, or when no attack occurs at all but hirabi leaders wish to rally their troops around the strategic efficacy of their mere existence.¹¹⁵ But, based on the record of hirabi attacks, we conclude that the attrition strategy, while it may contribute to the long-term goal of removing US influence from the MENA and Central Asian regions, is not a significant contributing factor in hirabis’ targeting decision-making.

AIRPLANE ATTACKS: THE PINNACLE OF TERROR

Though most observers agree that airplane attacks appear to be valued at a premium by hirabi terrorists, precisely why this is the case has not been fully elaborated by terrorism scholars.¹¹⁶ However, their appeal as targets becomes apparent when we consider them in light of the factors enumerated above. Attacking government-secured transportation advances multiple goals of terrorists at once.



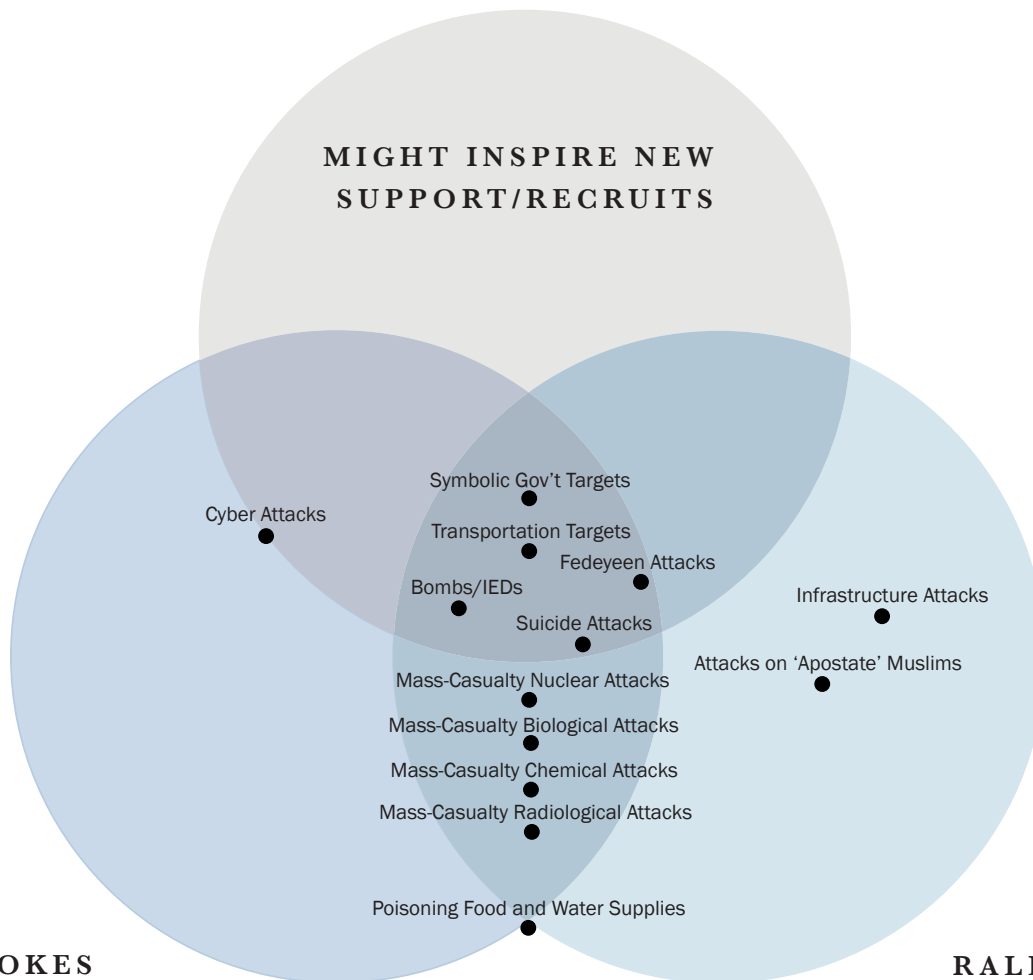
For one, such attacks show the state to be incapable of protecting its people, embarrassing it and provoking its (sometimes counterproductive) response. Second, because accessing any public transportation, especially planes, requires people to pass through some level of screening (backscatter X-ray machines in the case of air travel, but sometimes just the peer screening of fellow passengers for other modes of transport), a terrorist attack carried out in the name of a prospective constituency can provoke polarizing screening procedures against that group. After 9/11, the US TSA implemented what amounted to a de facto ethnic profiling policy that focused disproportionate attention on people who hail from predominately Arab or South Asian countries. In the aftermath of Abdulmutallab's more recent Christmas Day attempt, the TSA also instituted (then months later quietly retracted) a policy requiring travelers coming from or passing through majority-Muslim countries to submit to heightened screening. Such policies, because they divide populations into the very categories terrorists seek to polarize, often advance their general polarization/recruitment strategy.

Third, attacks on public transit, especially airplanes, exploit the heightened fear humans experience when they encounter risks over which they do not have control.¹¹⁷ Additional dynamics of human fear suggest other reasons why air attacks, in particular, might be so ter-

rorizing. In the first place, flying several thousand feet above the Earth is quite fear-inducing in a species that has been decidedly ground-based since its beginnings. Even at the height of our technological competence, relatively few people can experience heavy turbulence without also suffering a twinge of frightful adrenaline. Indeed, "sudden loss of support (i.e. falling)" was another of the three innate human fears Watson identified in his investigation of fear psychology.¹¹⁸ Terrorists attacking air transportation, therefore, need not produce fear out of whole cloth; they can simply amplify preexisting fears.

Such fears are most reliably overcome by facing them down repeatedly, a fact well known to therapists who help people quash phobias. But few people fly often enough to overcome their fear of turbulent air, much less terrorist bombings or hijackings. The fears generated by a single attack can linger with infrequent flyers for years. Attacks on commuter buses and trains in London and Madrid, by comparison, no doubt generated broad-based fear for passengers there (and perhaps around the world) for a number of days. But the trauma dissipated fairly quickly. By all accounts, commuters, out of necessity (public transportation is the only reliable and cost effective way to get to work in many cities), faced down their fears over a matter of days and returned to normal levels of ridership. Terrorists hoping to create a broad-based and sustained level of horror





**PROVOKES
STATE ESCALATION**

and dread will be most successful, it seems, when they attack targets that many people come into contact with, but do not frequent in quotidian fashion.

Until now, little has been written about how and why terrorists choose the targets and weapons they do.¹¹⁹ It has been assumed by many that hirabi terrorists seek to cause the greatest loss of life possible, or even that they target indiscriminately. The record of hirabi attacks, however, belies these claims. Perhaps, contrary to our suggestion that hirabis actually prefer conventional guns and bombs to

**RALLIES
MEMBERSHIP**

poisons and other weapons, they simply use them so frequently because they are so widely available. But when we observe hirabis' targeting of planes, public transportation, and government buildings in light of their overall polarization and recruitment campaign, we are struck by the seamless compatibility between their tactics and strategy. While more research is needed to confirm our hypotheses about terrorists' targeting and attacking schemas, hirabis seem to intuit that some forms of attack and some weapons are better suited to their strategies than others.

VI. WHAT HIRABI TERRORISTS ARE CAPABLE OF DOING

We have discussed what militant hirabi groups are seeking to do and how they go about doing it. Below, we examine in more detail the range of their capabilities as a function of their organizational capacities and limits, the external (primarily counterterrorism) constraints they face, and the competencies of the individuals who comprise them. While these factors combine to produce the overall operational capability of terrorist groups, they also influence one another through time. We have attempted to portray some of this causal mutuality below.¹²⁰

THE HARD ROAD OF TERRORISM

Focusing on the difficulties governments encounter as they deal with terrorism can sometimes lead us to forget that hirabis face far greater challenges. They are disadvantaged in terms of manpower, weaponry, legitimacy, support, and almost every imaginable social, political, economic, and cultural resource. They must live, communicate, coordinate, and execute their plans in secret. But they are also constantly striving to increase support and membership. Even without security constraints, that task is difficult since terrorists' tactics are usually widely unpopular and their ambitions are often seen as delusional by wider society. The law is against them. Their friends and families are often against them. And history appears to be

against them. While a small fraction of terrorist groups — those allied to well-organized, popular political movements attracting the support of international elites — have seen their ultimate goals achieved, the vast majority of terrorism campaigns have ended in defeat. Even in the few “successful” cases, it is unclear if terrorism precipitated victory for an allied movement or if the movement succeeded despite the use of terrorist tactics.¹²¹

With so much stacked against them, terrorist groups often die out after inspiring near-universal public backlash, implode from infighting, succumb to the betrayal of informants or undercover security agents in their midst, or are thoroughly repressed by state security forces.¹²² Below, we highlight some of the key obstacles terrorist groups must overcome to succeed in their operations.

THE CHALLENGES OF SECRET ORGANIZATIONS

Like any organization, terrorist groups suffer from endemic “principal/agent” problems, — challenges arising from the fact that tasks may not be communicated to or carried out by agents (e.g., employees or volunteers) according to principal's (e.g., employers or leaders) wishes. Operatives may bungle orders, they may act inappropriately in the name of the organization without permission, or leaders may ineffectively communicate their instructions. As al Qaeda's internal documents and corre-



spondence reveal, principal/agent problems can be especially pronounced in terrorist groups that must communicate under security pressures.¹²³ Furthermore, leaders cannot terminate the employment of operatives without risking significant blowback. Even threatening to fire an operative may push him into the hands of security officials. Leaders dedicated to advancing a recruitment/polarization strategy that avoids uncalibrated, revolting violence often have difficulty managing zealously violent operatives.



THE CHALLENGE OF COORDINATING DISCOURSES OF VIOLENCE

Hirabi militant groups often suffer from multiple internal fractures concerning ideology, strategic communications, and tactics. Al Qaeda's central organization, for example, has fought over its ideological underpinnings since it was first cobbled together out of a multinational mujahedeen force in Afghanistan. Disputes have raged over fundamental questions like whether political compromises are ever useful, whether Shi'a Muslims should be included in the movement, and who can legitimately be targeted for attacks. Internal documents and highly public conversations within the militant hirabi community show that these debates are more than academic.^{124 125}

At least part of the reason such conversations have been so public stems, paradoxically, from the fact that terrorists must keep their communications so secret. In a security environment where state officials can intercept point-to-point cellular, electronic, and telephonic communications, direct correspondence can be very risky. As a result, many terrorist communications not specific to particular operations are published for all to see on the internet.¹²⁶ Counterterrorism analysts and academics have pored over these documents, exploiting their strategic telegraphy (in works like, "Stealing the Al Qaeda Playbook")¹²⁷ to produce more effective counterterrorism strategies, a subject to which we now turn.

COUNTERTERRORISM – DENYING SAFE HAVEN

Though the strategic use of terrorism seeks to goad targeted states into polarizing reactions, not all state reactions work to terrorists' advantage. The invasion of Afghanistan and other international counterterrorism efforts greatly disturbed the trajectory of al Qaeda as an organization. By the second half of the 1990s, the group had slowly amassed hundreds of members, thousands of supporters, and had trained perhaps thousands of men in basic guerrilla warfare tactics. The group was also able to recruit consultants on chemical, biological, and nuclear weapons to explore developing such weapons. But when the 9/11

attacks inspired an international invasion of Taliban-controlled Afghanistan, much of this activity ceased.¹²⁸ The organization lost half or more of its personnel and many of those captured or killed had held important logistical and management positions. The large, hierarchical, globally-connected hirabi organization working towards developing threatening weapons and training fighters from around the world was, by 2002, just a hollowed out shell of weakened militants surrounding a few vital personalities.

COUNTERTERRORISM – DRYING UP FUNDING CHANNELS

While degrading the territorial safe haven that allowed al Qaeda to plan attacks and train recruits, the United States also worked to dry up their funding channels. The United States took advantage of an international mood favoring cooperation and led global efforts to secure and monitor money being funneled to violent anti-government groups. The Department of the Treasury partnered with Belgium's Society for Worldwide Interbank Financial Telecommunication (SWIFT) to track and significantly disrupt al Qaeda's pre-9/11 funding network. While some have questioned the efficacy of such efforts, arguing that they have merely driven the group to channel its finances through traditional (and virtually untraceable) *hawala* networks,¹²⁹

ample evidence suggests that al Qaeda has experienced serious budget limitations.

A CTC report cites al Qaeda documents showing that at various points in the past few years, al Qaeda Central has solicited funds in ways that betray significant financial difficulties.¹³⁰ A budding Bahraini terrorist cell was broken apart in July 2008 and charged with, among other things, directing their small independently generated funds to al Qaeda Central. This reversal of the more typical top-down resource flow has not been exceptional. In July 2005, Zawahiri wrote to Iraqi Sunni insurgent leader Abu Musab al Zarqawi asking for “a payment of approximately one hundred thousand [because] many of the lines have been cut off.”¹³¹ Al Qaeda Central has also stepped up its internet-based fundraising efforts over the last few years. In May 2007, Saeed al Masri, al Qaeda's number three and financial director at the time, issued the following webcasting:

“As for the needs of the ‘jihad’ in Afghanistan, the first of them is financial. The mujahedeen of the Taliban number in the thousands, but they lack funds. And there are hundreds wishing to carry out martyrdom-seeking operations, but they can't find the funds to equip themselves. So funding is the mainstay of jihad. ... And here we would like to point out that those who perform jihad with their wealth should



be certain to only send the funds to those responsible for finances and no other party, as to do otherwise leads to disunity and differences in the ranks of the mujahedeen.”

The apparently cash-strapped group even employed Zawahiri in a “robocall” fundraising campaign in Saudi Arabia in 2008.¹³² Another more urgent plea for “jihad with money” came from al Masri in 2009.¹³³ And in 2010, al Qaeda Central sent out desperate fundraising appeals at least three times.¹³⁴

Financial barriers are not likely to entirely undermine hirabi efforts. But they do slow the consolidation of money and power into the hands of a hirabi elite, preventing the development of a sophisticated hierarchy able to train new recruits and invest in new and more lethal weapons.

COUNTERTERRORISM – SECURING DANGEROUS MATERIALS

The United States, in addition to preventing terrorists from raising money to research and develop massively destructive weapons, has participated in expanding and overlapping international treaties and conventions curtailing the production or sale of CBRN weapons or the materials needed to produce them. By 2007, the Department of Homeland Security (DHS) formalized a set of regulations, the Chemical Facility Anti-Terrorism Standards

(CFATS) that coordinate the security efforts of private chemical manufacturers and local, state, and federal officials. DHS inspectors enforce the standards, guidelines, and regulations of CFATS to ensure that a range of dual-use chemicals (which can be used for industrial purposes or to create weapons) are closely guarded and carefully transferred and transported. Only licensed buyers can access dangerous chemicals in bulk. If some terrorist group sought to compromise a licensed buyer or seller of the chemicals, the compromised person could quickly be discovered by regulators and investigators, which deters such activities in the first place.

Biological agents that could be used to develop bioweapons are similarly monitored and controlled via the coordinated efforts of the Food and Drug Administration (FDA), the Centers for Disease Control (CDC) and the Department of Health and Human Services’ (HHS) National Science Advisory Board for Biosecurity (NSABB). The scope of biological agent activities to secure is even more constrained than for dual-use chemicals. While dual-use chemical facilities may be found in urban industrial zones around the country, dangerous biological agents only exist within a small network of high-containment laboratories (usually connected to hospitals, universities, and/ or government agencies like the CDC) with strict security protocols to prevent spread of dangerous pathogens. Workers



in these labs, their projects, and any publications from their work are vetted by institutional biosafety committees to ensure that the risks of research into dangerous diseases do not outweigh the benefits. According to the 2009 report of the Trans-Federal Task Force on Optimizing Biosafety and Biocontainment Oversight, comprised of officials from the Departments of Health and Human Services, Agriculture, Commerce, Defense, Energy, Homeland Security, Labor, State, Transportation, and Veterans' Affairs, in addition to the Environmental Protection Agency and the National Science Foundation, "a robust system for bio-safety and biocontainment oversight of high and maximum containment research and related activities is in place."¹³⁵

Nuclear materials are also very closely guarded. The International Atomic Energy Association (IAEA) has been closely regulating the sale, transfer, transportation, and use of radiological and nuclear materials since its creation in 1957. IAEA safeguards have evolved to become more stringent and exacting since their conception and include remotely monitoring nuclear material inventories, maintaining close measurement and oversight of fissionable materials, inspecting nuclear facilities (sometimes unannounced), overseeing sale and transfer of materials, setting security standards for nuclear energy facilities, and conducting investigations into

any suspicious or unsanctioned activity.¹³⁶

Over the last ten years, in an effort to ensure that terrorists cannot access nuclear materials, participating IAEA countries have voluntarily submitted to a more rigorous and frequent inspections regime. The two key nuclear powers, the United States and Russia, have worked to reduce their nuclear arsenals and convert their weapons-capable materials into safe fuel for nuclear power plants.

COUNTERTERRORISM – PORT, BORDER, AND AIRPORT SECURITY

In addition to securing the materials of mass-scale violence at their source, the United States has also improved security at its borders and at points of entry into the country. The formalization of airport screening by the TSA has raised barriers to more weapons and explosives. Despite popular criticism that the United States screens too few of the containers entering its ports, the Container Security Initiative (CSI) of DHS has secured international cooperation with ports around the world to increase screening of nearly 86 percent of the cargo that eventually enters the country.¹³⁷ Increased international intelligence cooperation and air cargo screening also helped to foil the first air cargo attacks attempted by hirabis in November 2010. In addition to keeping harmful cargo from entering the country, the TSA and other agencies, like the Bureau of



Immigration and Customs Enforcement (ICE) and Customs and Border Protection (CBP) have worked to prevent terrorists from setting foot on American soil. ICE's biometric identity verification processes for non-US citizens (part of their US-VISIT program) aims to cut down the incidence of passport fraud, and recent improvements to TSA's passenger-screening systems demonstrate the continual evolution of counterterrorism in response to terrorist threats.¹³⁸ Together, the work of multiple agencies rounds out a multi-layered defense of American borders, from securing trade routes abroad to screening travelers and cargo in ports of entry at home.



COUNTERTERRORISM – HARDENING TARGETS

In the wake of 9/11, the US government established the Department of Homeland Security and tasked it with, among other things, assessing America's vulnerabilities and prioritizing resources for the protection of potential targets. Initial assessments of vulnerabilities were overly broad and offered little direction to policymakers regarding the allocation of security resources.¹³⁹ But over the years, DHS budgets have become somewhat more focused, targeting resources to the creation of multi-layered security systems for many national monuments and centers of American power. While the process for understanding and responding to terrorist

targeting can be continually improved (and we hope this paper contributes to that effort), billions of homeland security dollars have been dedicated to the enhancement of surveillance and shielding of potential targets around the country, as well as damage mitigation procedures should they be attacked. Metropolitan areas have been equipped with sophisticated sensors able to detect pathogens and toxins in or around food and water supplies. And billions more have been spent securing nuclear facilities like Indian Point, less than forty miles from Manhattan.

While these large sums may be misspent or overspent in some places, they have certainly made the task of attacking symbolic targets like the Statue of Liberty or the Washington Memorial more difficult. Tens of billions have also been spent preventing the hijacking or bombing of airplanes. While, as others have argued, some portion of those resources appears to accomplish the appearance of security more than tangible security outcomes,¹⁴⁰ TSA screening has ensured that the last two attempts to bomb American airliners used unreliable chemical explosives that ultimately harmed no one but the men attempting those attacks.

COUNTERTERRORISM – INCREASINGLY SURGICAL USE OF SPECIAL OPERATIONS AND DRONE STRIKES

When the United States first undertook a “global war on terror,” waging ground war was one of its primary tactics. Over time, however, US military and security officials learned that the war in Iraq, and the subsequent occupation, probably produced more terrorists than they neutralized¹⁴¹ — and offered those terrorists relatively easy targets. Gradually, US and allied forces became more skilled at avoiding conflict with the populations they were charged to police and protect. And eventually, the US missions in both Iraq and Afghanistan have evolved beyond the kind soldiers were originally trained to fulfill. Though US armed forces spend a lot of time and energy training young men to become soldiers who can kill when necessary, killing is usually a discouraged practice for the vast majority of infantry and marines dedicated to Afghan and Iraqi counterinsurgency missions seeking to win “hearts and minds.”¹⁴² Instead, killing is to be carried out by special-forces units in the dead of night, or by unmanned aerial vehicles that rain down precision-guided missiles from several thousand feet. These shifts in mission and operations have begun to produce a shift in the relationship between American soldiers and the populations with whom they interact. As hearts and

minds have become the most crucial fronts in Iraq and Afghanistan, the casualty rates for American service members and Iraqi and Afghan civilians have generally diminished. At the same time, the rate of hirabi deaths has continued to climb. As US military targeting becomes more discerning, bystander populations are less likely to see Americans as the invading monsters of hirabi fables.

THE HIRABI MOVEMENT’S ORGANIZATIONAL EVOLUTION IN THE FACE OF COUNTERTERRORISM

Since the invasion of Afghanistan and the decimation of al Qaeda’s hierarchical central organization there in 2001 and 2002, most observers have noted a shift in al Qaeda’s structure to a looser, multi-nodal network.¹⁴³ Rather than serve as an operational logistics and financing hub, al Qaeda Central began focusing its efforts on inspiring and guiding the strategy of would-be hirabis around the globe. In this capacity, they have claimed some credit for international attacks without playing much or any role in their planning or financing. More than anything, al Qaeda seeks to be the brand name for the global hirabi movement. Al Qaeda Central has survived and enjoyed moderate success not because it was ever particularly large or robust — its core organization in Afghanistan has never grown beyond a few hundred members¹⁴⁴ — but because it



cornered the market (among hirabi groups) on the “far enemy” strategy and an anti-imperial, anti-American narrative tailored for a Muslim audience. As the keepers, coordinators, and financiers of that strategy and that narrative, they have been able to attract and establish a sort of “brand loyalty” among supporters, recruits, and donors. As a result, many more local independent hirabi militant groups have sought to boost their own appeal by adopting the al Qaeda brand name or affiliating themselves with the organization.

This branding and affiliation practice has not only made al Qaeda appear larger, it has helped its affiliates and their operatives seem more menacing. Global publics might have feared little from Algeria’s Salafist Group for Preaching and Combat. But when the group adopted al Qaeda’s brand and strategy, calling itself al Qaeda in the Islamic Maghreb (AQIM), publics become worried that the group responsible for killing 3,000 Americans on 9/11 was opening a franchise in Europe’s backyard. Many groups affiliated with al Qaeda are like AQIM. They have not demonstrated special skill at advancing a polarization/recruitment strategy through the use of transnational violence. But they gain credibility and give al Qaeda a larger international footprint by adopting its brand.

Thus, the al Qaeda brand name has been adopted in recent years by militant groups in Yemen (al Qaeda in the Arabian Peninsula),

Algeria (al Qaeda in the Islamic Mahgreb), Iraq (al Qaeda in Iraq), and Somalia (al Shabaab or al Qaeda in East Africa). Of those franchises, only AQAP has attempted any far enemy attacks. The others appear to be free riding on the al Qaeda name without making costly contributions to the far enemy element of its strategy.

Right now, too, there is considerable speculation about how committed these groups are to al Qaeda’s new leader, Ayman al Zawahiri. It was several weeks after the announcement of his ascension before all of al Qaeda’s named franchises made their obligatory public statements accepting his leadership — some relatively lukewarm. As of this writing, no other hirabi group (not bearing al Qaeda’s brand name), other than the organizationally overlapping Pakistani Taliban, has spoken up to salute the new leader. Some attribute this tepid reception to Zawahiri’s gruff and dry style, but it is also unclear how Zawahiri’s (and al Qaeda’s) preferred far enemy strategy advances the interests of any other hirabi group at this time.

Hirabi groups in Tunisia, Egypt, Libya, Syria, Bahrain, Yemen, and elsewhere certainly have more to gain by engaging (peacefully or not) in ongoing local struggles than by lashing out at some distant Western superpower. Doing so might provoke a US response, but it is not likely to be the kind of ground occupation that Bin Laden and al Naji successfully turned to



their advantage (for a time) in Iraq.¹⁴⁵ Instead, hirabi groups embarking on or even merely openly claiming a far enemy strategy are likely to invite the drone strikes that have been decimating al Qaeda's named franchises in Afghanistan, Pakistan, Yemen, Somalia, and Iraq. This dynamic could shift in the mid to long term if hirabis sense that they can foil a nascent and stabilizing secular regime by provoking foreign interventions that create a crisis of sovereignty. But, at least for the time being, the possibility of winning real political power, either at the ballot box or in the street, seems instead to be creating incentives for hirabis to give up their global violence, if not their violence altogether.

By contrast, al Qaeda Central has all of its prestige and influence to lose if it allows a full retreat from the far enemy strategy. With allied hirabi groups distracted by local struggles opened up by the Arab Spring, and its inspirational and founding leader dead, the group could fizzle out of existence. Perhaps, fearing this outcome, al Qaeda's command council, in announcing Zawahiri's promotion and the continuation of their strategy, sought to align the teetering organization with the few armed struggles still at all relevant to some Muslims: the civil war in Somalia, the ongoing struggle in Israel/Palestine, and the independence movement in Chechnya. By declaring a close bond with al Shabaab's efforts in Somalia, al Qaeda may be able to

share the victories of an insurgent army estimated to be a few thousand strong. They may also secure a tranche of existential credit and a possible safe haven should al Shabaab defy the odds and hold stable territory in the horn of Africa. But, al Shabaab's alliance with al Qaeda may be more limited than either group wishes to admit. The Somali group has never demonstrated any dedication to a far enemy strategy.¹⁴⁶

Closer to home, al Qaeda Central may be in danger of losing its most reliable ally of the last decade: the Afghan Taliban led by Mullah Omar. While the Taliban's immediate reaction to Bin Laden's death included a eulogy and a vow of revenge, the group has said far less about its continuing relationship with the post-Bin Laden organization. Multiple insiders have suggested that the al Qaeda-Taliban marriage was always based much more on the mutual respect and compounding prestige of Omar and Bin Laden than on the strategic needs of the Taliban. The latter group, from its founding, has been much more focused on achieving control over Pashtun territories than on creating a transnational caliphate. When Bin Laden was able to bankroll those efforts (even after attracting a massive post-9/11 NATO reprisal) Mullah Omar was happier fighting NATO forces than turning over the hero of militant hirabism to Western powers. Zawahiri is no such hero, though, and his al Qaeda is relatively cash-strapped and drawing



major fire from the US military and CIA. It is unclear to many why Mullah Omar, at this point, would renew his subscription to the al Qaeda club. With al Qaeda Central operating almost entirely from within Pakistani territory, Omar would be smart to take a deal that accomplishes an American withdrawal from the Afghan territory he wishes to control.

SELF-FORMING CELLS

In addition to al Qaeda's network of alliances, the group has also inspired several smaller groups, self-forming cells, and (possibly) a rare "lone wolf"¹⁴⁷ to join the global hirabi movement. According to Sageman, recruitment messages for hirabah have lately found their most fertile ground in the minds of people disenchanted with their life prospects (often living in Western countries indifferent to the cultural elements shaping their identities) and determined to make their lives meaningful. Young people in particular — those idealistic enough to aspire to 'greatness' but, for whatever reason, unable to achieve it through traditional channels — are most likely to heed the call to arms.¹⁴⁸

This is especially the case at this point in history. The two broad movements of advanced modernity, increasing economic and political integration at the international level, and the proliferation of discourses and technological channels for the making of (anti-) heroic identities and communities at the sub-national

level, are directly implicated in the rise of hirabism outside predominantly Muslim territories. Over 80 percent of those involved in international terrorist attacks carried out by al Qaeda and affiliated organizations through 2008 were living outside of their home country at the time they radicalized, often in Europe.¹⁴⁹ They reported feeling alienated there, growing disaffected with their host societies in their late teens and twenties. For them, international integration/assimilation failed.

Feeling disappointed and frustrated by economic, cultural, and social exclusion, some young immigrants have identified with discourses — preached in some Salafist or Wahhabi mosques or by self-appointed imams — that compare their own experience of feeling underappreciated, held down, and misunderstood by a wider community with the plight of (a postmodern reconstruction of the history of) Islamic civilization.¹⁵⁰ The almost one-to-one identification between their situation and that of Islam has led some to believe they are destined to emancipate themselves and the *ummah* (imagined Islamic world community¹⁵¹) through heroic action.

Such ideas find fertile ground in the frustrated minds of markedly few people, and even they rarely come to the extreme and violent theology of hirabah by themselves. According to interview studies with current and former hirabis, knowledge or fidelity to a fundamentalist interpretation of the Qu'ran plays a



much smaller role in determining who will become a terrorist than the affiliations of one's friends.¹⁵² Radicalization is usually a group process in which people iteratively convince themselves that they should mutually commit their lives to some great (mis)adventure. Hirabah inspires markedly few "lone wolves." And for every one, there are many more who joined as a 'group think' process allowed them to deepen and transform their pre-existing relationships and themselves.¹⁵³ Together, these groups of young men go through similar trials and find meaning together as they fight for a cause they believe can make them heroes of a vast transhistorical, transworldly, imagined community.

SLEEPER CELLS

While the threat of terrorism may increasingly come from small, self-forming cells, there was a period when security officials and experts were especially concerned about 'sleeper cells' – terrorist groups lying in wait, living seemingly normal lives, but furtively listening for word from Bin Laden to unleash untold horrors on innocent Americans. Immediately after 9/11, such concerns found expression in dozens of media reports, some more urgent than others. Just weeks after the Twin Towers and Pentagon were attacked, New York's *The Mirror* reported that: "An 11,000-strong terrorist army trained by Osama Bin Laden is ready to be unleashed on

the world... Sleeper cells are believed to be operating in more than 60 countries controlled by a 'Mr. Big' who is based in Europe."¹⁵⁴ In the following years, reports of potential sleeper cells continued to trickle across the pages of US newspapers.¹⁵⁵ But in 2005, a classified FBI report partially leaked to *ABC* news declared that, "US Government efforts to date...have not revealed evidence of concealed cells or networks acting in the homeland as sleepers."

No report, of course, can prove that sleeper cells do not exist in the United States. But if they do, it would be quite bizarre for them to have remained inactive during a decade that has seen so many setbacks hirabis have so desired to avenge.

FEWER RESOURCES, LOWER COMPETENCE, WEAKER WEAPONS

Fortunately for their targets, many in the new wave of the hirabi movement are less experienced and less connected than their predecessors. They receive less and lower-quality training than previous recruitment cohorts who benefited from al Qaeda safe haven. And if recently attempted attacks in the United States can serve as examples, they appear to be less competent. Three of the last four al Qaeda-inspired or coordinated attacks attempted against American civilians failed or were foiled thanks to the incompetence of operatives. Najibullah Zazi was caught in the



final steps of planning a 7/7 style attack on New York's public transportation system after multiple indiscrete preparatory activities confirmed an international intelligence tip that he was involved with terrorism. Farouk Abdulmutallab bungled the ignition of his chemical explosive on Northwest Flight 295. And Faisal Shahzad failed miserably in his attempt to detonate a poorly constructed improvised car bomb in New York City's Times Square.¹⁵⁶ Given the constraints on many new terrorists' technical expertise and their limited operational experience in an environment of heightened international intelligence cooperation, counterterrorists can expect the militant hirabis of the future to find more success when using tried and true (and readily available) weapons like bombs and guns, and less success with weapons that are more difficult to acquire, engineer, and deploy. We discuss these and other limitations in more detail below.



VII. A LIMITED REPERTOIRE

Because of the strategic, discursive, and operational constraints discussed above, hijabi terrorists are not likely to attempt many of the attacks analysts and policymakers have most feared. But even supposing they might seek to switch to some new strategy based on coercing their enemies with horrifyingly deadly weapons, developing those weapons appears to be well beyond the capabilities of today's hijabi groups. Here, we address the full range of potential terrorist attacks discussed by America's policymaking class and explain why hijabis are likely to continue using a well-practiced but comparatively limited repertoire of attacks as they continue their efforts to gain support for their ambitions.

MASS CASUALTY ATTACKS

Much of the fear surrounding terrorism has centered on the worst case hypothetical scenario of terrorists using WMDs. Bush's Secretary of Defense, Donald Rumsfeld, was not optimistic about America's ability to prevent such an outcome when he testified to the Senate Armed Services Committee on Sunday, May 19, 2002: "Terrorist networks have relationships with terrorist states that have weapons of mass destruction, and they inevitably are going to get their hands on them, and they would not hesitate one minute in using them. That's the world we live in."

Rumsfeld was not a lone voice in the military establishment making such an assessment. In

2002, retired four-star general Eugene Habiger, who led nuclear anti-terror programs for the Department of Energy (DOE) until 2001, stated that when it came to nuclear terrorism "it's not a matter of if; it's a matter of when."¹⁵⁷ Many other officials tasked with national security, including former Governor Thomas Kean, Chair of the 9/11 Commission, and FBI Director Robert Mueller have publicly stated that they sometimes sleep poorly because of fears of nuclear terrorism.¹⁵⁸ And all of the last four major-party presidential candidates have cited nuclear terrorism as their gravest concern.

Some academics, too, have joined in sounding the alarm and calling for increased measures to prevent WMD terrorism. As we have already noted, Graham Allison of Harvard's Kennedy School of Government and Director of its Belfer Center for Science and International Affairs, has frequently raised the specter of nuclear terrorism. RAND researchers Eric Larson and John Peters, based on the (dubious) assumption that twenty-five terrorist groups had a 1/100 chance of employing a WMD in any given year, calculated in 2001 that "the probability of a successful attack in the next year is $(1-(1-.01)^{25}) = 0.222$, or a little over one in five. The probability of a successful attack in the next 10 years is $(1-(1-.01)^{25*10}) = 0.918$, or about nine in 10."^{159 160} Perhaps based in part on Larson's and Evans's calculations, the US government reported to



the UN Security Council in June 2003 that “there is a high probability that al Qaeda will attempt an attack using a CBRN weapon within the next two years.”

But so far, no terrorist group anywhere in the world has been able to execute an attack even a quarter as deadly as the 9/11 attacks which killed nearly 3000 people. And none have deployed the massively destructive CBRN weapons of our nightmares. Security obstacles, which we addressed above, have played a part in preventing groups from using WMDs, but few non-state militant groups have ever had the money, safe haven, and personnel to begin weapons development programs. The al Qaeda Central organization of the late 1990s (before the invasion of Afghanistan in 2001-2002) is an exception. But are hirabi groups — even the arch-hirabi group, al Qaeda — interested in deploying such weapons?

DO HIRABIS WANT TO USE WEAPONS OF MASS DESTRUCTION?

Despite evidence of hirabi militants’ careful calibration of their attacks as effective “propaganda by deed,” al Qaeda’s central leadership has expressed significant interest in weapons that would seem to go far beyond any measured act that could be spun as self-defense. These WMDs include chemical, biological, radiological, and nuclear weapons capable of killing tens of thousands or more at a time.¹⁶¹

Al Qaeda’s central organization first sought to acquire such weapons, and/or the materials to produce them, starting in the mid 1990s according to the testimony of Jamal Ahmad al Fadl in the 2001 grand jury hearing of Osama Bin Laden,¹⁶² but the uranium al Qaeda thought it was buying turned out to be of low quality, incapable of creating a nuclear blast. Regardless, Bin Laden stated in a 1998 interview with *Time* magazine’s Rahimullah Yusufzai:

“Acquiring weapons for the defense of Muslims is a religious duty. If I have indeed acquired these weapons, then I thank God for enabling me to do so. And if I seek to acquire these weapons, I am carrying out a duty. It would be a sin for Muslims not to try to possess the weapons that would prevent the infidels from inflicting harm on Muslims.”¹⁶³

This statement came at the end of a year marked by escalating violence between Bin Laden’s network of self-described “jihadists” and the United States. In the previous months, Bin Laden issued a *fatwa* encouraging Muslims to kill any Americans, hirabis simultaneous bombed US embassies in Dar es Salaam and Nairobi, and President Clinton’s administration launched retaliatory missile-strikes.

Though reports indicate that nothing came of Bin Laden’s efforts then, he renewed his quest



for WMDs with Zawahiri's help in 1999 after moving to Afghanistan. However, for reasons discussed more thoroughly below, al Qaeda has not yet been able to acquire or produce these deadliest weapons.

Regardless of their failures, the group determined early on that they could achieve some of the strategic advantages of holding devastating weapons merely by claiming to possess them and threatening their use. As recalled by al Masri in his account of al Qaeda's discussions, the leadership never agreed about the strategic value of WMDs, but saw verbal threats as a way to "bestow some credibility on the Mujahedeen, and maybe some respect, moral influence and an aura of invincibility in the minds of people"¹⁶⁴ The bluffs were reported as credible intelligence by many international spy agencies and newspapers,¹⁶⁵ but appear fairly transparent with the benefit of hindsight.¹⁶⁶

Even if one sets aside significant evidence that al Qaeda was strategically bluffing about its WMD weapons programs, producing any of the feared weapons is exceedingly difficult.

NUCLEAR WEAPONS

Only a handful of countries with industrialized economies have ever accomplished the task of acquiring and assembling the ingredients for a nuclear weapon. While some worry that states might simply hand over those hard

won nuclear devices to terrorists, this is highly unlikely. The IAEA and the US government have developed tools of nuclear forensics that allow them to trace the origin of bombs even after detonation.^{167 168} This effectively places a "return address" on a nuclear attack, which, by the logic of mutually assured destruction, deters states from relinquishing control of their nuclear arsenals. Furthermore, states lending nuclear weapons would have little reason to trust that terrorists would keep their secret or do with the weapon what they promised. Terrorists could easily blackmail or threaten any donor state for more weapons or power.

The other way terrorists could get their hands on a nuclear weapon is to build one. But first they would need to procure significant quantities of highly enriched uranium (HEU or U-235) or plutonium.¹⁶⁹ The latter is difficult to come by, is highly radioactive (easily setting off passive sensors and sickening those who handle it), and must be prepared inside nuclear reactors that are heavily guarded. And building a plutonium bomb, because of its sophisticated architecture and plutonium's dangerous radioactive instability, is extremely difficult even for nuclear physicists and skilled engineers.

Terrorists' hopes for a nuclear weapon, therefore, rest on simpler uranium bombs that, while still requiring rare technical expertise, may use a less complex "gun" mechanism



(which fires a piece of HEU into a larger chunk of the same material) to create a violent nuclear chain reaction.¹⁷⁰ But there are multiple hurdles to clear before even beginning the complex process of creating such a “gun-bomb.” First, terrorists would need to collect HEU. There are two paths by which they could do this. They could gather a great deal of uranium-238 (which can be mined out of the ground) or reactor grade low enriched uranium and then build technically precise and powerful centrifuges able to spin the fissile U-235 to the top. Those centrifuges, Libyan, Iraqi, and Iranian scientists can testify, require industrial scale operations that are incredibly precise and very difficult to replicate. This path, multiple authors agree, is not at all likely to be successfully tread by terrorists.¹⁷¹

The only other path terrorists could take to create a uranium gun bomb would require that they beg, borrow, or steal HEU from a corrupt employee of some nuclear facility. But, current international nonproliferation efforts make that method of procurement exceedingly difficult even for well-financed sovereign states. Any illegal sale of fissionable material would launch an exhaustive manhunt focusing on the relatively few people able to access the material. Such attempted illegal sales of nuclear material were discovered eighteen times between 1993 and 2007 as states of the former Soviet Union reacted slowly to the need to secure fissionable mate-

rial. The interdicted sales (if successful) would have only resulted in the transfer of less than 17.5 pounds of HEU and less than 1 pound of plutonium. Even the most generous estimates of terrorists’ technical ability and luck would require them to gather around 50 pounds of HEU to construct a sophisticated and efficient gun-bomb,¹⁷² twice as much if their design were simpler.¹⁷³ As Vahid Majidi, head of the FBI’s WMD directorate has recently concluded, the prospect of nuclear terrorism is “very exciting, always good to see in a movie setting...but we haven’t seen a credible approach.”¹⁷⁴

RADIOLOGICAL WEAPONS

If terrorists cannot access enough HEU to create a nuclear bomb, they might be tempted to use what little uranium they might acquire to construct a “dirty bomb.” Such a weapon uses conventional explosives to disperse radioactive material into a larger area. Dirty bombs are only sometimes considered WMDs in the counterterrorism literature since their effects are not likely to greatly outstrip those of conventional bombs in most cases. Deaths by radiation depend heavily on the type of material used. Gamma-emitting materials like caesium-137 (often used for radiation therapy against cancer) are more destructive to human tissues than alpha or beta-emitting materials like uranium-235 and strontium-90 (which have several other medical uses). Alpha parti-



cles can be blocked with a single piece of paper, while gamma particles require a few centimeters of lead to shield against them.

To the extent that radiological weapons are terrorizing, the terror appears to be based mostly on ignorance of the basic nuclear physics of radioactive dosing. While people within a hundred meters of a dirty bomb might die of a high radioactive dose — if they did not perish from the effects of the blast itself — most of the people farther away or shielded by buildings would suffer only low doses of radiation comparable to those we experience on a particularly sunny day.¹⁷⁵ Fears of radiological weapons, therefore, mostly come down to fear of fear (i.e., concern that a panic will ensue).

The long-term economic impact of such a bomb, also cited as a major concern, depends on the half-life of the material used. The radioactive effects of a radium dirty bomb, for instance, would fully dissipate to safe levels (even at the epicenter) within a matter of days. A uranium dirty bomb, on the other hand would require significant clean-up efforts since the half-life of uranium-235 is over 700 million years. Some authors, especially after the Fukushima disaster, have also raised concerns that terrorists would attack a nuclear power plant in order to spread radioactive material over a population.¹⁷⁶ The economic impact of such an attack could certainly be devastating. However, these attacks are not as

easy to execute as some believe. The containment dome at Indian Point Nuclear Facility — often represented as a prime target for terrorist attacks because it is only an hour's drive from New York City — can withstand the impact of a jetliner and/or detonations from large bombs.¹⁷⁷ Other nuclear facilities may not be so well protected, but they are also farther from population centers, limiting their attractiveness as targets.

CHEMICAL WEAPONS

The use of chemical weapons by non-state groups is rare. Aum Shinrikyo, the apocalyptic Japanese cult, executed the first non-state chemical attack against the public on the Tokyo Metro in 1995. Though hundreds were traumatized by their release of sarin gas in the confined space, only a dozen died. Aum Shinrikyo's middling success points to some of the major challenges of creating and using chemical weapons. First, compiling the ingredients for chemical weapons is difficult given surveillance and enforcement protocols. Dual-use chemicals like chlorine, phosgene, and hydrogen cyanide are readily available for licensed industrial users. But DHS's CFATS regime ensures that only well-trained, patient, and lucky terrorist operatives would have any chance at orchestrating the loading of the chemicals undetected. Other chemicals, like the G- and V-nerve agents, incapacitating agents, and the toxin ricin are difficult and



dangerous to produce, especially in large quantities of sufficient quality to be used as weapons. And because their precursors do not have industrial uses, they are very difficult to procure even for the skilled con-artist/terrorist.

If terrorists could create or acquire such toxins, weaponizing them presents other major hurdles. Some chemicals, like chlorine, are “volatile,” meaning they evaporate at typical pressures and temperatures. They do not necessarily require sophisticated dispersal mechanisms to be effective; they can simply be spilled and their gases can be carried by the wind. But most, and the most deadly, must be dispersed at a fairly specific particle size, or “aerosolized,” to reach the most vulnerable parts of the human respiratory system.¹⁷⁸

Aerosolization is a difficult process that requires a technical knowledge of fluid dynamics and the coagulative properties of the material being used. Or, if the toxic agent is a solid in its weaponized form, it must be ground down to the correct particle size and protected from static charges that can cause it to agglomerate. In any case, the dispersal of chemical weapons is disrupted by even mild wind, (too much or too little) humidity, air pollution, ultraviolet light, or excessive heat.¹⁷⁹

In the most ideal weather conditions, deadly chemicals could potentially be aerosolized over crowds from some upwind building or a crop-dusting plane, but moving large enough

quantities to do significant harm would be difficult without arousing suspicion. Because it is so difficult to acquire or produce the chemicals and/or effectively disperse them into a crowd that is both captive and accessible, large-scale attacks are not likely to be attempted when other means are available. Small-scale attacks would almost certainly be less effective than those using conventional weapons and even Rolf Mowatt-Larssen agrees that hirabis are not likely to execute such attacks.¹⁸⁰ While an AK-47 is able to kill with the pull of a trigger it is also able to deter counterattacks. A terrorist employing a container with a spray nozzle, on the other hand, could quickly and easily be neutralized by anyone armed with a gas mask, a weapon, and/or a good amount of courage. Also, as we have suggested above, chemical attacks do not fit the targeting schemas of terrorists because they lack the psychological impact and media cache of bombs and guns and are incompatible with hirabi narratives of jihadist heroism.

Aum Shinrikyo was rare in its use of chemicals. Its leader, Shoko Asahara, was said to be obsessed with poisons. But even his group, incredibly well-funded (with around \$300 million) when it attempted ten separate chemical terror attacks, could not manage to kill more than a dozen people, much less bring on the dark apocalypse of Asahara’s nightmares. Aum Shinrikyo’s failures, despite all their attempts and financial and scientific resources,



reveal how unreliable and inefficient chemical weapons are compared to bombs and guns, the time-tested tools of terrorism.

BIOLOGICAL WEAPONS

In the late 1990s, Ayman al Zawahiri hired a mid-level Pakistani biologist, Abdur Rauf Ahmed, to develop bioweapons for al Qaeda. FBI and Pakistani Interservices Intelligence (ISI) reports suggest that Rauf Ahmed was unable to acquire a pathogenic strain of *anthrax*, and, anyway, it appears his relationship with al Qaeda soured, over money, well before the *anthrax* could be cultured and weaponized in the labs he helped design.¹⁸¹ Al Qaeda's failure was not a sign of gross incompetence so much as it indicated how difficult it is to procure or produce biological weapons in the first place. First, biological weapons share many of the limitations of chemical weapons. They are at least as difficult to procure and prepare as the most difficult chemical weapons, and are as difficult to weaponize and disperse. Despite al Qaeda's multiple attempts to obtain *anthrax* from 1997 to 2001, they could never secure a pathogenic strain of the bacterium. But even if terrorists did somehow access a small amount of some biological agent, growing a stockpile and making it into an aerosolized weapon are not simple tasks.¹⁸²

Given these hurdles, bioterrorism has been rare and mostly unsuccessful. Known cases include the 1984 *salmonella* poisoning of salad

bars in Oregon, the 1993 release of *anthrax* spores by Aum Shinrikyo in Tokyo, and the 2001 *anthrax* attacks, known as the *Amerithrax* attacks, executed through the US Postal Service. The first two attacks resulted in zero fatalities. While the *salmonella* poisoning successfully sickened hundreds of people, no one died. The Aum Shinrikyo *anthrax* attack failed because the *anthrax* particles were either inappropriately weaponized for toxification or were not a sufficiently virulent strain of the bacterium. While the *Amerithrax* attacks certainly inspired a great deal of fear, only five people died as a result and evidence suggests that the attacks were carried out by a rogue US bioweapons researcher, not hirabis unfamiliar with the sensitive process of weaponizing *anthrax* powder.¹⁸³

The limited number and effect of these bioterror events, however, have not allayed some people's concerns that an extremist group could one day unleash the bubonic plague, smallpox, botulism, the Ebola virus, or the Marburg virus.¹⁸⁴ Advances in biogenetics have even generated worries that someone somewhere someday years into the future might create a new "superbug" capable of wiping out millions of people at a time.

At present, research indicates that terrorists' knowledge-base regarding the development of chemical and biological weapons is "crude" at best. Researchers from the Center for Nonproliferation Studies described the instruc-



tions available on hirabi websites and manuals for the production and weaponization of cyanide, hydrogen sulfide gas, mustard gas, botulinum toxin, ricin, and the plague as “amateurish,” “very crude,” “vague,” and “insufficient.” They judged that none of the instructions seemed likely to produce a quality agent, none of them effectively outlined the process by which readers could manufacture munitions, and none of them presented instructions sufficiently outlining “credible delivery systems.” In their estimation, the probability that a group could produce mass-casualties based on the knowledge provided by these various manuals and websites (and assuming they had the proper ingredients) ranged from zero to “very low.”^{185 186}



SUB-OPTIMAL TARGETS: INFRASTRUCTURE, WATER AND FOOD SUPPLIES

In addition to raising concerns about a range of weapons hirabis are not likely to use, authors have also raised concerns about various classes of American targets that hirabis have shown little interest in attacking.¹⁸⁷

The reasons why airplane attacks are so sought after and why they so successfully generate fear (sometimes even when they are not well-executed) are also the reasons why other targets are so undesirable to terrorists. Despite a great deal of DHS attention on infrastructure attacks, for instance, the United States

has not suffered a single such attack.¹⁸⁸

Whereas transportation (especially commercial aviation) attacks strike existential fear into the hearts of Americans, attacks on infrastructure show the public that terrorists do not intend to kill them directly.¹⁸⁹ In a worst-case scenario, sabotage of some city’s critical infrastructure might force significant numbers to relocate or significantly alter their daily routines for a time, but this may be more stress- and anger-inducing than terrorizing.

Acts of sabotage, unlike the killing of civilians, also suffer in terms of their propaganda value. Images of exploding airplanes or public panic in a city center are more likely to be looped on television news than the smoldering remains of an infrastructure fire in an industrial zone. In many cases, such attacks may even be dismissed by government as industrial accidents unrelated to terrorism — undermining militant groups’ attempts to gain attention for their cause. And crucially, such disruptions are eventually repaired thanks to the emergency efforts of the one party militant groups wish to delegitimize: the government itself. While the state can never bring a human back to life, it can certainly repair a bombed pipeline, a blown-out bridge, or a downed electrical transformer.

Attacks on food and water supplies are also sub-optimal for terrorists. They may result in the destruction of many plants and animals, great economic losses, and even several human

deaths, but they are very difficult to spin into a heroic narrative. Those harmed most by such attacks would likely be the chronically undernourished like the children of the poor, not a target population many people can sympathize with harming. Even the die-hard terrorists willing to risk backlash with such an attack are not likely to be energized by killing with poisons when they could kill with guns and explosives. In majority-Muslim countries, like most other societies, poisoning is generally viewed as a dishonorable form of fighting, one not likely to inspire support much less an influx of young recruits seeking adventure or martyrdom.

Such attacks are not easy to execute either. Dangerously contaminating a water source like a reservoir or lake, for instance, requires very large amounts of hazardous material. Depending on the size of the reservoir, it is unlikely that fewer than several dump-truck loads of any hazardous material could significantly toxify a city's water supply. Instead, terrorists would need to dump contaminants into a main water pipeline headed into a city. These lines are sealed, though, and in almost all modern population centers, sensors (designed to protect safety and manage the pressure of the water supply) will alert water department officials if they are tampered with or lose pressure. Any subsequent investigation could quickly turn up evidence of foul play and authorities would have some time to

reroute water supplies, warn the public, and take other remedial action.¹⁹⁰

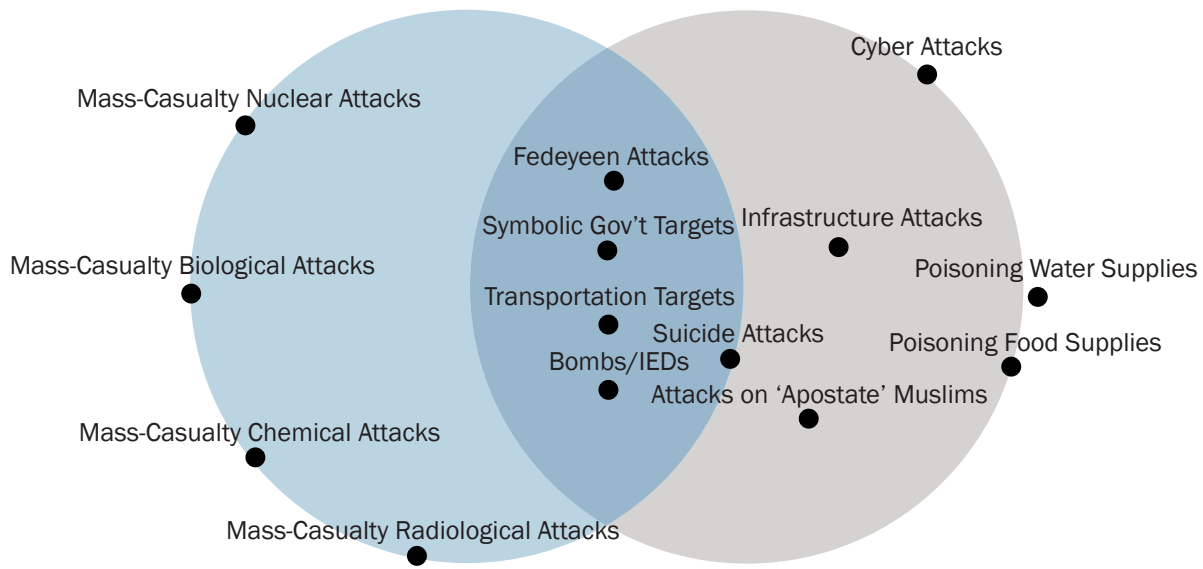
For attacks on infrastructure or food and water supplies to be counted as successes, terrorist groups must be able to explain to potential recruits how the attacks advance the glory of their cause while undermining the popularity of the governments that mitigate the damage and characterize the attacks as cowardly and barbaric. Such sabotage, while often useful for disrupting supply lines in force-on-force wars, is not likely to accomplish much for a strategy attempting to rally support.

CYBER ATTACKS

The latest national security vulnerability to occupy America's political class grows out of the country's economic and logistical dependence on the Internet and cloud computing. In June 2011, President Obama released a report outlining his "International Strategy Against Cyber Warfare." While his report focuses particular attention on cyber threats from other nation-states, specifically China, some security experts and pundits have also expressed concerns about cyber-terrorism by hirabi militants.

Many agree that the sorts of denial-of-service attacks against credit card companies and banks executed by the group "Anonymous" in support of embattled WikiLeaks founder Julian Assange have the potential, if wide-





ADVANCES HIRABI STRATEGY

WITHIN HIRABIS' CAPABILITIES



spread and long-running enough, to disrupt the American economy at a time when it is already underperforming. The use of the “Stuxnet” virus against Iran’s nuclear facilities also demonstrated that well-placed hacks can warp and destroy automation processes commonly used throughout energy and industry sectors. Fears of such attacks are probably slightly overblown, however, since most computer networks managing such processes operate offline, meaning that hacks could be prevented by simply controlling access to systems’ upload portals. (The “Stuxnet” virus, apparently, was uploaded into Iranian machines via a portable USB drive.)

Whatever the threat of cyber-attacks may be, there are no indicators suggesting that hirabi terrorists are particularly interested in executing them. Though hirabis spend a fair amount of time in internet chat rooms and have a few

relatively talented hackers able to mask the IP addresses and locations of users, they do not appear to have recruited the sorts of sophisticated computer engineers who can threaten the viability of key cyber-infrastructure or internet nodes.

Such attacks do not fit the modus operandi of the hirabi movement, either. There is nothing particularly inspiring about a denial-of-service attack. And even a more consequential attack on infrastructure (if it could be accomplished) sends the wrong signal to hirabi recruits. Hirabi leaders want to ingratiate themselves into the pantheon of world historical figures by attacking the monuments of American power as they did on 9/11, or by marauding its revered and feared soldiers, as they have done in zones of occupation or directed followers like Nidal Hassan to do. But tinkering with computer machines that disrupt internet

access or manufacturing processes inspires little sanguinity among the militants who comprise the vast majority of their movement. The profile of the hirabi movement is, simply put, not that of the hacker set.

SMALLER-SCALE TERRORISM IS EASY (AND POTENTIALLY EFFECTIVE)

While WMD, infrastructure, and food and water supply attacks are difficult and potentially harmful to the hirabi agenda, it is a plain and unfortunate fact that small-scale terrorist attacks, especially in the absence of (but even given) security obstacles we have discussed, are shockingly easy to execute. Any person with a conventional bomb (constructed according to instructions readily available on the internet) or an assault weapon (which can be purchased legally in the United States) can, with horrifying ease, kill several people at any given moment in any place where people congregate.

Even small terrorist cells or lone individuals with little to no connection to a larger hirabi organization may be capable of carrying out attacks that perpetuate the struggle between hirabis and Western governments. The Madrid and London bombers, to that point, appear to have operated without financial or logistics support from al Qaeda's central organization. While the London attacks may have had mixed strategic results, inspiring

anger and revulsion against al Qaeda among London's Muslim population but also their frustrations with the UK's subsequent anti-terror policies, the Madrid attacks seemed to accomplish their precise objective — coercing the Spanish electorate to install a government that would remove its troops from Iraq.¹⁹¹ In both cases, the deadly attacks were fairly easy to plan and remarkably inexpensive, self-funded by operative savings and/or small lines of credit.

Even the 9/11 attacks did not require any technical genius or expenditures on the scale of a national military — just flight lessons, box-cutters, and passengers' trust that the safest response to a hijacking was to remain calm. Understandably aghast commentary notwithstanding, the attacks were hardly 'unthinkable.' Their only innovation entailed replacing the vehicle used in the common tactic of suicide truck bombing. Using planes also required placing operatives in US flight schools. But al Qaeda's (partial) clearing of these additional hurdles never constituted evidence that hirabis had jumped to a new level of terror allowing them to kill thousands of innocents whenever and wherever they wanted with any conceivable weapon.

The 9/11 attacks were not the first (and may not be the last) of hirabis' coordinated attacks. The embassy bombings al Qaeda orchestrated in Kenya and Tanzania happened within minutes of each other. Several other hirabi plots



— the Bojinka plot, the London/Heathrow plot, the Mumbai attacks (carried out by Lakshar-e-Taiba), and threatened plots repeating Mumbai-style attacks throughout Europe in the summer of 2010 — have been designed to generate panic and disorientation by attacking multiple sites at once. Such plots cannot be carried out by a single ad hoc terrorist cell, but require a larger team including planners, organizers, and trainers. Smaller militant groups are happy if they can successfully complete a single bombing.



Even given hirabis' use of a rather limited repertoire of weapons attacking a limited range of targets, their aggregate threat could still be potent in the years to come. Audrey Kurth Cronin was surely right when she wrote that "the fear that a small organization with a loose network has metamorphosed into a protracted, monolithic, global ideological struggle without end is misguided and ahistorical."¹⁹² But while disconnected amateur terrorists may not be able to deploy CBRN WMDs, or even reliably execute the sorts of attacks that have failed lately, they can, in the words of Bruce Hoffman, "readily achieve their dual [tactical] aims of fear and intimidation simply by blowing things up."¹⁹³ If hirabis can carry out more attacks goading the United States and its allies into polarizing responses that play into hirabi recruitment narratives, they may find a way to live on.

VIII. CONCLUSION

Our extensive review of intelligence reports, internal documents from militant hirabi groups, news reports, and previous threat assessments shows that hirabis are motivated by ambitions that appear to be unrealistic. But this does not mean they behave irrationally in pursuing their goals. On the contrary, militant hirabi groups employ a strategy common to numerically weak forces, using the power of their larger adversaries against them by provoking reactions that help them build a larger base of support. That strategy is best served by spectacular attacks targeting planes, trains, busses, government buildings, and other symbols of Western political, economic, and cultural influence.

Analysts should not be surprised that hirabis have rarely sought to attack inanimate infrastructure, or food or water supplies. Such attacks do little to advance their strategy, and can even play into governments' hands. Weapons of mass destruction, too, appear less than optimal for the hirabi approach. Though many hirabis probably fantasize about WMDs, it is not clear that their use would help build substantial popular support for their still tiny movement seeking a transcontinental fundamentalist theocracy. Massively destructive weapons are much more likely, in fact, to provoke overwhelming revulsion from all quarters. In any case, very few hirabis are likely to attempt the intricate, expensive, and dangerous process of developing

advanced weapons capable of killing thousands at a time. And none yet have come close to success.

Taken together, our findings suggest cautious optimism about the threat from hirabi terrorism. Three developing external factors bolster that optimism. First, al Qaeda's central organization is battered, harried, and facing demise. Not only are special operations and drone strikes eliminating many of its members, its recruitment rate has significantly slowed over the past several years. Security pressures have made members wary of new applicants, and applications to join have slowed as the popularity of the group has plummeted.

The anemia of al Qaeda, in terms of popular support, will likely only be exacerbated by the events of the still unfolding Arab Spring. That movement, driven by mostly non-violent citizen protesters demanding self-determinative governments, has repudiated al Qaeda's tactics and its goals. Also, we should recall that like all politics, all political violence is local. Virtually every hirabi group (including al Qaeda) initially formed to address some local grievance (even if they later agreed to share in a larger international effort). As local fields of political contestation open to more players, many hirabis are already setting aside their transnational or international ambitions to see what they can accomplish in their own backyards. Some are even giving up violence so they can engage directly in elections. Throughout



Muslim-majority countries, many who once sympathized with al Qaeda because they believed it offered the best prospect of thoroughgoing political change have now moved on to effect that change through less violent means without al Qaeda's input.

As we have observed, governments' responses to terrorism campaigns significantly affect their duration and success. US counterterrorism appears to be improving on the whole. Counterterrorist forces are achieving greater success as they continually narrow the focus of their strikes to hardened terrorists, avoid civilian casualties, and develop mutually respectful and cooperative relationships with the non-combatant populations they encounter – populations increasingly disenchanted with hirabis' goals and methods. Thanks to an Arab Spring that has obviated al Qaeda's raison d'être and the steady suffocating pressure of ten years of international counterterrorism efforts, the United States stands poised to diminish the al Qaeda-led hirabi movement to a nuisance level by eliminating many of its members and encouraging the pacification and localization of other groups once sympathetic to its cause. In the meantime, policymakers and the public should understand that the threat from hirabi terrorism is not apocalyptic. And the limited impact of terrorism over the past decade was no accident. It was the result of a limited terrorist strategy and limited repertoire of tactics that we now understand quite well.



AUTHORS' NOTE

We wish to thank the many scholars, researchers, journalists, and government analysts whose work we have drawn on in completing this research. This paper was possible thanks to the generous support of the Lotus Foundation and the Open Society Institute. We thank them not only for funding this research but also encouraging our independence in the process. We would also like to thank our many colleagues who have offered us guidance, encouragement, and enriching conversations throughout the production of this paper. We are especially grateful for the engagement of Audrey Kurth Cronin, Suzanne Spaulding, Karen Greenberg, Mark Fallon, Tom Parker, Mike German, and Nancy Chang.



ENDNOTES

- ¹ Ashcroft, Levin and Shays quotes pulled from: The Hotline Staff. 2001. "New Threats: Not Out of the Woods Yet?". *The Hotline*. The National Journal Group. October 1.
- ² Diebel, Linda. 2001. "Bush Warns of Biological, Nuclear Threat by Bin Laden." *The Toronto Star*. November 7. A8.
- ³ Laqueur, Walter. 1999. *The New Terrorism: Fanaticism and the Arms of Mass Destruction*. Oxford University Press. New York.
- ⁴ Some of these authors have been more careful than others when characterizing the category of religious terrorism. It seems to us that the apocalyptic terrorism of Aum Shinrikyo (seeking an end to the world) is quite different from the theocratic terrorism of al Qaeda and their hirabi allies (which seeks to govern territory).
- ⁵ Laqueur, Walter. 2003. *No End to War*. Continuum International. New York. Pg. 10-11.
- ⁶ Winter, Greg and William Broad. 2001. "A Nation Challenged: The Water Supply: Added Security for Dams, Reservoirs, and Aqueducts." *The New York Times*. September 26.
- ⁷ Manning, Anita. 2001. "Food Supply May be Terror Target." *USA Today*. November 1.
- ⁸ Staff Writer. 2011. "Cyberterrorism a Threat That Won't Go Away." UPI. September 16.
- ⁹ Hylton, Wil. 2011. "How Ready Are We for Bioterrorism?" *The New York Times Magazine*. October 26.
- ¹⁰ The United States, for instance, supported the jihad of Afghans and other Muslims against the USSR from 1979-1989.
- ¹¹ Esposito, John and Dalia Mogahed. 2007. *Who Speaks for Islam? What a Billion Muslims Really Think*. Gallup Press. New York. Pg. 17-19.
- ¹² See, for example, the following verses of the Qu'ran: 2:190 4:90 and Maida 5:32.
- ¹³ However, the Qu'ran denies Muslims the right to pass such judgment on their fellows in verse 4:94. Several anecdotes of the Hadith support this verse. See <http://www.islamopediaonline.org/fatwa/prohibition-takfir-muslim-calling-another-muslim-unbeliever> for examples.
- ¹⁴ Esposito, John and Dalia Mogahed. 2007. *Who Speaks for Islam? What a Billion Muslims Really Think*. Gallup Press. New York. Pg. 75.
- ¹⁵ See for example: <http://www.islamopediaonline.org/fatwa/what-jihad-who-can-declare-jihad> or <http://www.khalidzaheer.com/qa/255>
- ¹⁶ Bruce Riedel papered over this significant (especially from a US security perspective) difference between al Qaeda's ideology and that of Azzam in his September 11, 2011 piece arguing that Azzam's and al Qaeda's ideologies are one and the same and are not dying anytime soon.
- ¹⁷ See Qu'ran's verses pertaining to covenants: 17:34 2:100. For context and Hadith, see <http://www.suhaiwebb.com/society/international/muslim-americans-must-obey-u-s-laws-nidal-hasan-disobeyed-islamic-doctrine-at-lookonwatch-com/>
- ¹⁸ Miller, Greg. 2011. "US Officials Believe Al-Qaeda on Brink of Collapse." *The Washington Post*. July 26, 2011. http://www.washingtonpost.com/world/national-security/al-qaeda-could-collapse-us-officials-say/2011/07/21/gIQAfu2pbI_story.html
- ¹⁹ In the second edition of *Inside Terrorism*, Hoffman disaggregates al Qaeda in response to the very organizational shift Sageman amplifies, focusing increased attention on al Qaeda's "affiliates and associates" and "al Qaeda locals." Hoffman writes: "On the eve of 9/11, al Qaeda was a unitary organization, assuming the dimensions of a lumbering bureaucracy... [now,] al Qaeda in essence has transformed itself from a bureaucratic entity that could be destroyed... to the clearly less powerful, but nonetheless arguably more resilient, amorphous entity it is today [in 2006]." Hoffman, Bruce. 2006. *Inside Terrorism*. Columbia University Press. New York. Pg. 283.
- ²⁰ Riedel, Bruce. 2011. "Zawahiri's First 100 Days." *The Daily Beast*. August 15, 2011. <http://www.thedailybeast.com/articles/2011/08/15/ayman-al-zawahiri-s-first-100-days-as-al-qaeda-leader-after-bin-laden.html>
- ²¹ In doing so, Riedel actually referred heavily to Abdullah Azzam's ideology, which, as we've pointed out in our note on 'hirabi' vs. 'jihadi' and elsewhere, departed significantly from Bin Laden's and al Qaeda's motivating ideology.
- ²² A website promoting his book, *Nuclear Terrorism*, even features a 'Blast Map' tool allowing visitors to enter their zip codes to see how much of their neighborhoods would be incinerated by a 10-kiloton nuclear bomb.
- ²³ http://www.cfr.org/publication/13097/how_likely_is_a_nuclear_terrorist_at_tack_on_the_united_states.html
- ²⁴ Mowatt-Larsen, Rolf. 2010. "Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality?" *Belfer Center for Science and International Affairs*. January 2010. http://belfercenter.ksg.harvard.edu/publication/19852/al_qaeda_weapons_of_mass_destruction_threat.html
- ²⁵ See Smil, Vaclav. 2008 *Global Catastrophes and Trends: The Next Fifty Years*. MIT Press. Cambridge, Mass. Pgs. 229-231, 233 for a review of literatures on the lay psychology of risk assessment.
- ²⁶ Tetlock, Philip. 2005. *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton.
- ²⁷ This and other explanations for exaggerating the threat of terrorism are reviewed in Friedman, Benjamin. 2010. "Chapter 10. Managing Fear: The Politics of Homeland Security." *Terrorizing Ourselves*. Cato Institute. Pgs. 193-202.
- ²⁸ Clarke, Richard. 2004. *Against All Enemies*. Free Press. New York. Pg. 239.
- ²⁹ Lipton, Eric. 2006. "Come One, Come All, Join the Terror Target List." *The New York Times*. July 12. <http://www.nytimes.com/2006/07/12/washington/12assets.html>
- ³⁰ Hylton, Wil S. 2011. "How Ready Are We for Bioterrorism?" *The New York Times Magazine*. October 26. http://www.nytimes.com/2011/10/30/magazine/how-ready-are-we-for-bioterrorism.html?_r=2&hpbw
- ³¹ See Mowatt-Larsen, Rolf. 2010. "Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality?" *Belfer Center for Science and International Affairs*. January 2010. http://belfercenter.ksg.harvard.edu/publication/19852/al_qaeda_weapons_of_mass_destruction_threat.html
- ³² According to Ron Suskind's 2006 book *The One Percent Doctrine*. Simon and Schuster, Cheney once told an advisor that if terrorists had a 1% chance of successfully detonating a nuclear bomb, security authorities ought to behave as though a nuclear attack was certain.



- ³³ Cronin, Audrey Kurth. 2010. *How Terrorism Ends*. Princeton University Press.
- ³⁴ This is a classic case of a person looking for their keys under a street light not because there is good reason to believe they are there, but because the light is there.
- ³⁵ See also Parker, Tom. 2007. "Fighting an Antaeon Enemy: How Democratic States Unintentionally Sustain the Movements They Oppose." *Terrorism and Political Violence*. Vol. 19.
- ³⁶ It may also be undervalued because the "New Terrorism" thesis of the late 1990s convinced many that al Qaeda was no longer behaving according to any comprehensible strategy.
- ³⁷ Such theory was at least implicitly understood by scholars of previous waves of terrorism like Brian Michael Jenkins and Walter Laqueur as cited in Dowling, Ralph. 1986. "Terrorism and Media: A Rhetorical Genre." *Journal of Communication*. Winter. Though we have not closely reviewed their work for this piece, we also nod to an analytical tradition focusing on the dynamics of oppositional politics that has been handed down from sociologists like Charles Tilly and Doug McAdam to scholars like Jeff Goodwin, David Snow, and Tom Parker.
- ³⁸ Usage of the term 'weapon of mass destruction' has not been formalized, but has often been related to the death tolls the weapons can produce. For the purposes of this paper, we will consider a WMD any weapon that kills more than 3000 people, the approximate number killed in the 9/11 attacks. However, the FBI and DOJ are keen on charging people who would use even small bombs only capable of killing dozens – Zazi, Abdulmutallab, and Shazad among them – with attempted use of 'weapons of mass destruction.' We reject this usage as a trivialization of a term that also, in theory, references a category including thermonuclear weapons capable of incinerating millions at a time.
- ³⁹ Nonetheless, some people contest the classification of these attacks as 'terrorism' since they targeted members of the military. Some have also suggested that Hassan's attack has more in common with a workplace shooting than a terrorist act.
- ⁴⁰ Also see Difo, Germain. 2010. "Ordinary Measures, Extraordinary Results: An Assessment of Foiled Plots Since 9/11." Report of American Security Project. <http://americansecurityproject.org/wp-content/uploads/2010/09/Foiled-Plots.pdf>
- ⁴¹ One could well object that many of these plots were significantly influenced by FBI undercover agents or informants. It is possible, therefore, that some terrorists, not under the influence of FBI assets, might choose wholly different approaches. However, an expanded search of worldwide terrorist incidents over a much longer period shows that almost all fit the same pattern of targeting and attack style as those dreamed up under the conditions of FBI sting operations.
- ⁴² Charges that Jose Padilla was interested in detonating a dirty bomb resulted from information gathered during a coercive interrogation of a subject shown to have made many false statements under duress, and were later removed from his federal indictment.
- ⁴³ It should be noted, too, that the Al Qaeda in Iraq campaign has been studied by terrorists as a model of what not to do because it was largely responsible for the 'Anbar Awakening' that saw Iraqis reject sectarian violence and cooperate with state-based security initiatives. See Fishman, Brian. 2009. "Dysfunction and Decline." *Combating Terrorism Center*. Mar 16. <http://www.ctc.usma.edu/posts/dysfunction-and-decline-lessons-learned-from-inside-al-qaeda-in-iraq>
- ⁴⁴ Only in occupied Iraq were chemical weapons used with any lethal effects by insurgent groups associated with Hirabi terrorism. There, however, the chemical agents were used in conjunction with conventional explosives. Reports indicate that the fatalities (totaling 37 for seven attacks), and most of the more serious injuries, resulted from the conventional explosives and not the chlorine shells (which only temporarily sickened hundreds (total) in the attacks). There was also an accusation by Jordanian security officials that a cell connected to Al Zarqawi was attempting to make a mass casualty chemical bomb that could result in a lethal toxic cloud. Follow-up investigation revealed that the chemicals collected by the cell – according to former senior U.N. adviser on chemical weapons, Ron Manley – might have been able to "generate some toxic byproducts, but they're unlikely to result in significant deaths by poisoning." (See Hanley, Charles. "WMD terrorism: Sum of all fears doesn't always add up." *USA Today*. Oct. 29, 2005. http://www.usatoday.com/news/world/2005-10-29-terror-vision_x.htm)
- ⁴⁵ All data available in the Global Terrorism Database: <http://www.start.umd.edu/gtd/>
- ⁴⁶ For a synthetic review of academic literatures on terrorist' strategic decision making, see: McCormick, Gordon. 2003. "Terrorist Decision Making." *Annual Review of Political Science*. Vol. 6: 473-507.
- ⁴⁷ Mike German offers perhaps the clearest formulation of this strategy in the seventh chapter of his book. German, Mike. 2007. *Thinking Like a Terrorist: Insights of a Former FBI Undercover Agent*. Potomac Books. Washington, D.C. Chapter 7.
- ⁴⁸ The key difference between jihad and hirabah is the latter approach's targeting of civilians not directly responsible for policy decisions. See "A Brief Note on *Hirabi* vs. *Jihadi*" above for further explanation.
- ⁴⁹ See chapters 1 and 2 of: Moghadam, Assaf and Brian Fishman, Editors. 2010. "Self-Inflicted Wounds: Debates and Divisions Within Al-Qa'ida and its Periphery." *Combating Terrorism Center*. West Point. <http://www.ctc.usma.edu/wp-content/uploads/2011/05/Self-Inflicted-Wounds.pdf>
- ⁵⁰ In hindsight, that hirabi atrocity may have been a key switchpoint in history leading to the use of a nonviolent approach to Mubarak's ouster over a decade later.
- ⁵¹ Soufan, Ali. 2011. *The Black Banners: The Inside Story of 9/11 and the War Against al-Qaeda*. W.W. Norton and Company. New York. Pgs. 30, 61-5. Moghadam, Assaf and Brian Fishman, Editors. 2010. "Self-Inflicted Wounds: Debates and Divisions Within Al-Qa'ida and its Periphery." *Combating Terrorism Center*. West Point. <http://www.ctc.usma.edu/wp-content/uploads/2011/05/Self-Inflicted-Wounds.pdf>
- ⁵² Moghadam, Assaf and Brian Fishman, Editors. 2010. "Self-Inflicted Wounds: Debates and Divisions Within Al-Qa'ida and its Periphery." *Combating Terrorism Center*. West Point. <http://www.ctc.usma.edu/wp-content/uploads/2011/05/Self-Inflicted-Wounds.pdf>
- ⁵³ Soufan, Ali. 2011. *The Black Banners: The Inside Story of 9/11 and the War Against al-Qaeda*. W.W. Norton and Company. New York. Pg. 32.
- ⁵⁴ Kean, Thomas et al. 2004. *The 9/11 Commission Report*. Norton and Company. London. Pg. 250-2; Bergen, Peter. 2011. *The Longest War*. Free Press. Pgs. 7-10.



- ⁵⁵ Bergen, Peter. 2011. *The Longest War*. Free Press. Pg. 89.
- ⁵⁶ Bergen, Peter. 2011. *The Longest War*. Free Press. Pg. 77.
- ⁵⁷ Committee Report. 2009. "Tora Bora Revisited: How We Failed to Get Bin Laden and Why it Matters Today." US Government Printing Office. Washington, D.C. Pg. 13.
- ⁵⁸ Committee Report. 2009. "Tora Bora Revisited: How we Failed to Get Bin Laden and Why it Matters Today." U.S. Government Printing Office. Washington, D.C. Pg. 12.
- ⁵⁹ Ibid. See also Bergen, Peter. 2011. *The Longest War*. Free Press. Pg. 80.
- ⁶⁰ Brachman, Jarret M., and William F. McCants. 2006. "Stealing Al Qaeda's Playbook." *Studies in Conflict & Terrorism* 29(4):309-321.
- ⁶¹ Sageman, Marc. 2008. *Leaderless Jihad: Terror Networks in the Twenty-First Century*. University of Pennsylvania Press. Philadelphia.
- ⁶² In "The Oath," a 2010 documentary by Jonathan Oppenheim, former terrorist Abu Jandal explains the purpose of the 9/11 attacks to young men he counsels: "They hit America and humiliated it like no one ever did... It's a matter of honor. Why does Islam prohibit the slap on the face? Because the face is symbol of dignity and respect. ... [The attacks] tarnished America's dignity around the world. That's the whole story. You stain their reputation."
- ⁶³ For a thorough review and systemization of this literature, see Bornstein, Gary. 2003. "Intergroup Conflict: Individual, Group, and Collective Interests." *Personality and Social Psychology Review*. Vol. 7, No. 2.
- ⁶⁴ Andrew C. McCarthy, Pamela Geller, Glenn Beck, and Robert Spencer comprise the Islamophobic vanguard. Others, including Michael Mukasey, Charles Krauthammer, Bill O'Reilly and Liz Cheney's 'Keep America Safe' have made statements affirming the credibility of these authors' even if they have demurred from publicly sharing some of their most outlandish concerns.
- ⁶⁵ Tajfel, Henri. 1982. "Social Psychology of Intergroup Relations." *Annual Reviews in Psychology* 33:1-39. Pg. 21.
- ⁶⁶ See Rosenblatt, Abram and Jeff Greenberg et al. 1989. "Evidence for Terror Management Theory: I. The Effects of Mortality Salience on Reactions to Those Who Violate or Uphold Cultural Values." *Journal of Personality and Social Psychology*. Vol. 57, No.4, 681-690 ... and ... Greenberg, Jeff, Tom Pyszczynski, Sheldon Solomon, Abram Rosenblatt, and et al. 1990. "Evidence for terror management theory II: The effects of mortality salience on reactions to those who threaten or bolster the cultural worldview." *Journal of Personality and Social Psychology* 58:308-318.
- ⁶⁷ Sidanius, Jim, and Felicia Pratto. 2001. *Social dominance: an intergroup theory of social hierarchy and oppression*. Cambridge University Press.
- ⁶⁸ Rydgren, J. 2004. "The Logic of Xenophobia." *Rationality and Society* 16:123. Pg. 124.
- ⁶⁹ Fiske, S. T., and S. E. Taylor. 1991. *Social Cognition*. McGraw-Hill. New York.
- ⁷⁰ To illustrate, when we arrive at a friend's home and they tell us to "grab a chair," we do not scan the room for the exact chair we first encountered as a child. Instead, we have learned over the course of our lives – based on our experiences with thousands of chairs – that a chair is just an object with a horizontal surface 2-3 feet off the ground. Once, we've found an object fitting that description, we then *infer* that the object we are about to sit on has other unseen properties relevant to the 'chair' category, namely that it is sturdy enough to hold our weight. Without even thinking about it, we draw conclusions about unknown individual chairs from what is necessarily an incomplete knowledge about the category 'chair.' This is a cognitive process that fails us from time to time, e.g. when we sit in a chair that collapses beneath us. But it is far more efficient to suffer those failures than to carefully test the properties of every chair (or window, door, vehicle, etc.) before putting it to use.
- ⁷¹ Sumner, W. G. 1906. *Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals*. Ginn.
- ⁷² For reviews of this literature, see Diehl, M. 1990. "The Minimal Group Paradigm: Theoretical Explanations and Empirical Findings." *European Review of Social Psychology* 1:263-292. ... and... Turner, J. C. 1981. "The experimental social psychology of intergroup behaviour." *Intergroup behaviour*. Pgs. 66-101.
- ⁷³ Tajfel, H., M. G. Billig, R. P. Bundy, and C. Flament. 1971. "Social categorization and intergroup behavior." *European Journal of Social Psychology* 1:149-178.
- ⁷⁴ Oakes, P.J., and J. C. Turner. 1980. "Social categorization and intergroup behaviour: Does minimal intergroup discrimination make social identity more positive." *European Journal of Social Psychology* 10:295–301.
- ⁷⁵ For a couple examples, see Wilkinson, Paul. 2006. *Terrorism Versus Democracy: 2nd Edition*. Routledge. New York; or... Art, Robert and Louise Richardson (Eds.). 2007. *Democracy and Counterterrorism: Lessons From the Past*. U.S. Institute of Peace Press. Washington, D.C. ... or Richardson, Louise. 2007. "Terrorist Rivals: Beyond the State-Centric Model." *Harvard International Review*. Spring.
- ⁷⁶ As Robert Art and Louise Richardson conclude: "The Italian, Peruvian, Indian, and British governments... each learned from their mistakes... and each dramatically improved the effectiveness of its counterterrorism policies." Art, Robert and Louise Richardson. Eds. 2007. *Democracy and Counterterrorism: Lessons From the Past*. United States Institute of Peace Press. Washington, D.C. Pg. 563.
- ⁷⁷ Schanzer, David, Charles Kurzman, and Ebrahim Moosa. 2010. "Anti-Terror Lessons of Muslim-Americans." National Institute of Justice, Department of Justice. Washington, D.C.
- ⁷⁸ The increased weighting of limited and available information over information not readily accessible is described in the psychology literature as the "availability heuristic." Tversky, Amos and Daniel Kahneman. 1973. "Availability: A Heuristic for Judging Frequency and Probability." *Cognitive Psychology*.
- ⁷⁹ Allport's *The Nature of Prejudice* spawned a great deal of research in this area. Allport, G. W. 1954. *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- ⁸⁰ See Pew Research Center Polling report, "Muslim Americans" <http://www.people-press.org/2011/08/30/section-6-terrorism-concerns-about-extremism-foreign-policy/>
- ⁸¹ German, Mike. 2007. *Thinking Like a Terrorist: Insights of a Former FBI Undercover Agent*. Potomac Books. Washington, D.C. Pg. 102.
- ⁸² A *fatwa* is an Islamic religious ruling from an Islamic scholar pertaining to some matter of Islamic law.



- ⁸³ Pew Research Center polling data. 2009. http://www.nytimes.com/imagepages/2009/09/27/weekinreview/20090927_SHANE_GRFK.html
- ⁸⁴ Esposito, John L., and Dalia Mogahed. 2008. *Who Speaks For Islam?: What a Billion Muslims Really Think*. Gallup Press. Pg. 48.
- ⁸⁵ Esposito, John L., and Dalia Mogahed. 2008. *Who Speaks For Islam?: What a Billion Muslims Really Think*. Gallup Press. Pg. 37.
- ⁸⁶ Because the founding prophet of Islam fused politics and religion, Muslims tend to be more comfortable with mixing Mosque and State than Christians, whose messiah eschewed politics and counseled followers to “render unto God what is God’s and unto Caesar what is Caesar’s.” But Islam’s long history of mixing politics and religion has also created several competing interpretations of how the two should be integrated. While many Muslims agree that some basic and fairly universalist Islamic principles should guide law, they reach little agreement on interpretations of more detailed aspects of the Qu’ran, Hadith, and Sunnah (Mohammed’s example) – not unlike Christians’ diverse and diverging interpretations of biblical texts.
- ⁸⁷ Esposito, John L., and Dalia Mogahed. 2008. *Who Speaks For Islam?: What a Billion Muslims Really Think*. Gallup Press. Pg. 37.
- ⁸⁸ Esposito, John L., and Dalia Mogahed. 2008. *Who Speaks For Islam?: What a Billion Muslims Really Think*. Gallup Press. Pg. 69.
- ⁸⁹ Bergen, Peter and Paul Cruickshank. 2008. “The Unraveling.” *The New Republic*. June 11, 2008.
- ⁹⁰ See William McCants recent essay in Foreign Affairs for a thorough discussion of Islamist politicians’ undermining of al Qaeda’s momentum: McCants, William. 2011. “Al Qaeda’s Challenge.” *Foreign Affairs*. Vol. 90, No. 5.
- ⁹¹ Roy, O. 2008. *Al Qaeda in the West as a Youth Movement: The Power of Narrative*. MICROCON Policy working Paper 2, Brighton: MICROCON.
- ⁹² Sageman, Marc. 2008. *Leaderless Jihad*. University of Pennsylvania Press. Pg. 51-2; and also Esposito, John L., and Dalia Mogahed. 2008. *Who Speaks For Islam?: What a Billion Muslims Really Think*. Gallup Press.
- ⁹³ Hoffman, Bruce. 2006. *Inside Terrorism*. Columbia University Press. New York. Pgs. 246-248.
- ⁹⁴ Pedahzur, A., and A. Perlinger. 2005. “The Changing Nature of Suicide Attacks: A Social Network Perspective.” *Social Forces*. Vol. 84.
- ⁹⁵ Abrahms, Max. 2008. “What Terrorists Really Want.” *International Security*. Vol. 32, No. 4. Pp. 78-105.
- ⁹⁶ Dowling, Ralph. 1986. “Terrorism and the Media: A Rhetorical Genre.” *Journal of Communication*. Winter 1986.
- ⁹⁷ More than forty separate militant attacks were executed, but it is unclear how many were actually the work of Al Qaeda in Iraq.
- ⁹⁸ Austin Turk makes this mistake in multiple writings, e.g. Turk, Austin. 2004. “Sociology of Terrorism.” *Annual Review of Sociology*. 30:27. Pg. 273. December 2001. Laqueur pushed the meme too far as well, as we pointed out in our Executive Summary to this document. The mistake is especially common in journalistic accounts and political speeches, with examples too numerous to itemize.
- ⁹⁹ Alan Cullison, a *Wall Street Journal* investigative journalist, accessed Zawahiri’s computer in late 2001, read his files, and concluded that “al-Qaeda understood that its attacks would not lead to a quick collapse of the great powers. Rather, its aim was to tempt the powers to strike back in a way that would create sympathy for the terrorists.” Cullison, Alan. 2004. “Inside Al Qaeda’s Hard Drive.” *The Atlantic*. September. Kydd and Walter, in reviewing terrorist strategizing, state that “Evidence abounds that terrorists explicitly consider the prior behavior of states...” Kydd, Andrew and Barbara Walter. 2006. “The Strategies of Terrorism.” *International Security*. Vol. 31.1. Pg. 63. Indeed, Bin Laden, in his 2004 Message to the World video recording boasted that it was “easy for us to provoke this [Bush] administration.” Pgs. 241-242.
- ¹⁰⁰ An Arabic word for ‘consultation.’
- ¹⁰¹ Kean, Thomas et al. 2004. *The 9/11 Commission Report*. Norton and Company. London. Pgs. 251-2.
- ¹⁰² According to the testimony of Condoleezza Rice to the National Commission on Terrorist Attacks, April 8, 2004.
- ¹⁰³ Doran, Michael. 2002. “The Pragmatic Fanaticism of al Qaeda” *Political Science Quarterly*. Vol. 117. No. 2.
- ¹⁰⁴ Hoffman, Bruce. 2006. *Inside Terrorism*. 2nd Edition. Columbia University Press. New York. Page 88.
- ¹⁰⁵ Crenshaw, Martha. 2003. ““New” versus “Old” Terrorism.” *Palestine-Israel Journal*. Vol. 10. No.1.
- ¹⁰⁶ ... regardless of whether or not their beliefs truly reflect the religion of Islam. This is one of the conclusions of Ken Ballen’s recently published *Terrorists in Love*. Ballen, Ken. 2011. *Terrorists in Love: The Real Lives of Islamic Radicals*. Simon and Schuster. New York.
- ¹⁰⁷ Combating Terrorism Center. 2006. “Harmony and Disharmony: Exploiting al-Qa’ida’s Organizational Vulnerabilities.” Department of Social Sciences, US Military Academy. February, 14. http://iis-db.stanford.edu/pubs/21057/Harmony_and_Disharmony-CTC.pdf
- ¹⁰⁸ A copy of Zawahiri’s letter can be found at http://www.globalsecurity.org/security/library/report/2005/zawahiri-zarqawi-letter_9jul2005.htm.
- ¹⁰⁹ Combating Terrorism Center. 2006. “Harmony and Disharmony: Exploiting al-Qa’ida’s Organizational Vulnerabilities.” Department of Social Sciences, US Military Academy. February, 14. Pgs. 11-13 http://iis-db.stanford.edu/pubs/21057/Harmony_and_Disharmony-CTC.pdf
- ¹¹⁰ Grossman, Dave and Bruce Siddel. 2000. “Psychological Effects of Combat.” Academic Press.
- ¹¹¹ Ibid.
- ¹¹² Bell, J.B. 1978. “Terrorist Scripts and Live-Action Spectaculars.” *Columbia Journalism Review*. May-June 1978. Pg. 50.
- ¹¹³ Kaufer, Daniela et al. 2011. “Basolateral Amygdala Regulation of Adult Hippocampal Neurogenesis and Fear-related Activation of Newborn Neurons.” *Molecular Psychiatry*. AOP.
- ¹¹⁴ Watson, J.B. 1928. *Psychological Care of Infant and Child*. W.W. Norton and Co. New York.
- ¹¹⁵ In other words, terrorists boasting of an attrition strategy are often making a virtue of necessity. For instance, AQAP spoke of an attrition strategy after



their “printer bomb” plot failed as a way of pointing out that for only a few thousand dollars, they might be able to force America and the West to implement increased security measures for cargo planes. But virtually no one believes that similar attacks could bankrupt the US, much less that they will result in the transnational fundamentalist theocracy of hirabis’ dreams. To achieve their major goal, hirabis need to inspire their prospective constituency and turn them against the states they fight. Attrition does not do this.

- 116 Our extensive searching turned up no academic articles and only a few opinion articles on the subject. Some work focuses on the familiar argument that religious groups are more likely to attack helpless civilians (whether or not they are traveling), but we found nothing suggesting why airplanes were chosen above other soft targets. (<http://www.start.umd.edu/start/publications/Making%20the%20Wrong%20Connection.pdf>)
- 117 Studies in risk analysis reflect humans’ tendency to perceive increased risks in activities they are unfamiliar with or lack control over. Hence, many feel safer when driving than flying despite the fact that fewer people die per hour of flying than do when driving. See Smil, Vaclav. 2008 *Global Catastrophes and Trends: The Next Fifty Years*. MIT Press. Cambridge, Mass. Pgs. 229-231, 233 for a review of literatures on the lay psychology of risk assessment.
- 118 Watson, J.B. 1928. *Psychological Care of Infant and Child*. W.W. Norton and Co. New York.
- 119 Hoffman attempts, in a comparative way, to explain the ideological constraints on the targeting choices of leftists, ethnonationalist, and religious terrorist groups, but hardly addresses the strategic advantages and disadvantages of various weapons. Pgs. 229-240.
- 120 We also wish to stress that while nearly all threat assessments (including this one) analyze terrorists’ goals and strategies separately from their capabilities, this analytical de-coupling is dangerous if analysts forget that the matching of strategy and capability is vital for the success of terror campaigns. In other words, terrorist groups with a perfect strategy wretchedly executed or a wretched strategy perfectly executed are no more threatening in the middle to long term than groups wretchedly executing a wretched strategy. More concretely, a terrorist group with a WMD strategy but no WMDs is not a significant threat. Neither is a terrorist group with a WMD capability, but no strategy to use them.
- 121 See Abrahms, Max. 2006. “Why Terrorism Does Not Work.” *International Security*. Vol. 31. No.2; and Rappaport, David. 2006. “The Four Waves of Modern Terrorism.” UCLA International Institute. <http://www.international.ucla.edu/article.asp?parentid=47153>
- 122 For a thorough review of the various ways terrorism campaigns meet their demise, see Cronin, Audrey Kurth. 2010. *How Terrorism Ends*. Princeton University Press.
- 123 See Combating Terrorism Center. 2006. “Harmony and Disharmony: Exploiting al-Qa’ida’s Organizational Vulnerabilities.” Department of Social Sciences, US Military Academy. February, 14. http://iis-db.stanford.edu/pubs/21057/Harmony_and_Disharmony-CTC.pdf
- 124 For a review of these debates, see the International Institute for Counter-Terrorism’s frequently updated reviews of terrorist website activity. <http://www.ict.org.il/ResearchPublications/JihadiWebsitesMonitoring/JVMGPeriodicalReviews/tabid/344/Default.aspx>

- 125 Also see “Self-Inflicted Wounds” for a thorough account and analysis of these and other schisms in the hirabi movement. Moghadam, Assaf and Brian Fishman, Editors. 2010. “Self-Inflicted Wounds: Debates and Divisions Within Al-Qa’ida and its Periphery.” Combating Terrorism Center. West Point. <http://www.ctc.usma.edu/wp-content/uploads/2011/05/Self-Inflicted-Wounds.pdf>
- 126 Before the internet became a popular mode of communication, terrorist strategists often communicated their plans through other open media like pamphlets and even novels. *The Turner Diaries* by William Pierce, for instance, laid out the very plan Timothy McVeigh eventually executed by exploding a truckbomb outside the Alfred P. Murrah Federal Building in Oklahoma City.
- 127 Brachman, Jarret M., and William F. McCants. 2006. “Stealing Al Qaeda’s Playbook.” *Studies in Conflict & Terrorism* 29(4):309-321.
- 128 In early 2001, al Qaeda also sought to partner with Umma Tameer e Nau (UTN), a Pakistani social welfare NGO founded by (among others) some prominent members of Pakistan’s military and nuclear weapons establishment. The group reportedly had plans to aid al Qaeda in the production of a nuclear weapon, but that work was hardly off the ground before the September 11th attacks and the NATO-led invasion of Afghanistan forced al Qaeda out of its camps and underground. Pakistani intelligence arrested many in the UTN organization for questioning, and placed many under surveillance and/or house arrest. “Fortunately,” as David Albright and Holly Higgins concluded in *The Bulletin of Atomic Scientists*, “the fall of the Taliban regime ended the threat that a ... nuclear weapons program could have emerged in Afghanistan.” The international crackdown on al Qaeda’s activities also resulted in the late 2001 arrest of Rauf Ahmed and the few others involved in the militant network’s chemical and bioweapons programs. Albright, David and Holly Higgins. 2003. “A Bomb for the Ummah.” *Bulletin of the Atomic Scientists*. Vol. 59. No.2. Pg. 54. http://groups.yahoo.com/group/SAAN_/message/511
- 129 See for examples: http://www.cdi.org/terrorism/finance_primer-pt.cfm ; http://pdfserve.informaworld.com/37973_915549761_714044665.pdf
- 130 Levitt, Matthew. 2008. “Al-Qa’ida’s Finances: Evidence of Organizational Decline?” CTC Sentinel. April, 2008. <http://www.washingtoninstitute.org/opedsPDFs/4807814218aed.pdf>
- 131 Global Security has an English translation of Zawahiri’s letter to Zarqawi at http://www.globalsecurity.org/security/library/report/2005/zawahiri-zarqawi-letter_9jul2005.htm
- 132 Levitt, Matthew. 2008. “Al-Qa’ida’s Finances: Evidence of Organizational Decline?” CTC Sentinel. April, 2008. <http://www.washingtoninstitute.org/opedsPDFs/4807814218aed.pdf>
- 133 NEFA 2009. “Statement from Shaykh Mustafa Abu al Yazid re: Jihad with Money and the Need for Money for Jihad in Afghanistan and Elsewhere.” June 9. <http://www.nefafoundation.org/miscellaneous/FeaturedDocs/nefaabualyazidin0609.pdf>
- 134 2010. “Al-Qaeda Appeals to Sympathizers for Donations.” *Asharq al Awsat*. August 12, 2010. <http://aawsat.com/english/news.asp?section=1&id=21931>
- 135 Trans-Federal Task Force on Optimizing Biosafety and Biocontainment Oversight. 2009. “Report of the Trans-Federal Task Force on Optimizing Biosafety and Biocontainment Oversight.” Pg. 128. Available at:



- <http://www.ars.usda.gov/is/br/bbotaskforce/biosafety-FINAL-REPORT-092009.pdf>
- 136 See IAEA document “IAEA Safeguards: Stemming the Spread of Nuclear Weapons” for more detailed information. http://www.iaea.org/Publications/Factsheets/English/S1_Safeguards.pdf
- 137 Deflem, Mathieu. 2010. *The Policing of Terrorism: Organizational and Global Perspectives*. Routledge. New York. Pg. 51.
- 138 See DHS document “Implementing 9/11 Commission Recommendations” for more information. <http://www.dhs.gov/xlibrary/assets/implementing-9-11-commission-report-progress-2011.pdf>
- 139 For instance, as Benjamin Friedman has lamented, “The homeland security strategy mentions the Northern Mariana Islands and “native Alaskan Villages” as locations that require defense against all types of terrorists attacks” when all available evidence suggests that terrorists prefer to hit iconic world-renowned symbolic targets. Friedman, Benjamin. 2004. “Leap Before you Look.” *Breakthroughs*. Spring 2004. Page 33.
- 140 Schneier, Bruce. 2009. “Beyond Security Theater.” *The New Internationalist*. No. 427. November.
- 141 To wit, even by October 16, 2003 – in a memo to General Dick Meyers, Paul Wolfowitz, General Pete Pace, and Douglas Feith – Donald Rumsfeld worried about the following questions: “Are we capturing, killing or deterring and dissuading more terrorists every day than the madrassas and the radical clerics are recruiting, training and deploying against us? ... Is our current situation such that “the harder we work, the behinder we get?”” Full memo published as “Rumsfeld’s War-on-Terror Memo” *USA Today*. May 20, 2005. <http://www.usatoday.com/news/washington/executive/rumsfeld-memo.htm>
- 142 The Defense Advanced Research Projects Agency is even developing a social science based simulation trainer aiming to train tens of thousands of Marines and other military in the art of face-to-face diplomacy so that they can better accomplish their counterinsurgency missions without resorting to violence. https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=c8cdd91f9faea26ab89cbf762cf3b0aa&_cvview=0
- 143 Authors including Hoffman, Sageman, Bergen, Cruickshank, Cronin, Rose, and many others too numerous to cite here agree.
- 144 Bergen, Peter. 2010. “Why Bin Laden Still Matters.” *Newsweek*. September 4. <http://www.thedailybeast.com/newsweek/2010/09/04/why-osama-bin-laden-still-matters.html>
- 145 While the invasion of Iraq was first a boon to the hirabi movement, al Qaeda in Iraq utterly failed as surrounding populations rejected its attempt to establish an Islamic government. For more on al Qaeda’s debacle in Iraq, see: Fishman, Brian. 2009. “Dysfunction and Decline: Lessons Learned from Inside Al Qa’ida in Iraq.” *Harmony Project*. Combating Terrorism Center. West Point.
- 146 It has carried out one brutal attack against international football (soccer) fans in Uganda as a way of avenging Ugandan participation in Somali peace-keeping missions, but has done little to effect attacks on Western powers.
- 147 Brian Michael Jenkins has suggested that the term “stray dog” may be more appropriate since many of these self-radicalizing individuals are not “cunning and deadly predator[s],” but instead “skulk about, sniffing at violence, vocally aggressive but skittish without backup.” See Jenkins, Brian Michael. 2011. “Stray Dogs and Virtual Armies.” *RAND Occasional Paper*. September, 2011. http://www.rand.org/pubs/occasional_papers/2011/RAND_OP343.pdf
- 148 Olivier Roy and Marc Sageman both discuss the youthful skew of al Qaeda’s recent recruitment cohorts in their works cited elsewhere in this paper.
- 149 Sageman, Marc. 2008. *Leaderless Jihad*. University of Pennsylvania Press. Pg. 65.
- 150 A recent study published in the journal *SCIENCE* by Jennifer Whitson and Adam Galinsky shows through experimental data that when people feel like they lack control, they are more likely to endorse illusions of control offered by superstition, conspiracy theories, and religion. Whitson, Jennifer and Adam Galinsky. 2008. “Lacking Control Increases Illusory Pattern Perception.” *SCIENCE*. Vol. 322. Pgs. 115-117.
- 151 To borrow a concept and phrase from Anderson, Benedict. 1991. *Imagined Communities*. Verso. London.
- 152 Some of the 9/11 hijackers were even reported to have enjoyed alcohol and strip clubs, clear violations of fundamentalist Islamic practice. Marc Sageman’s research shows that most terrorists joined through pre-existing friendship networks, not primarily out of a religious devotion to the hirabi cause. Sageman, Marc. 2008. *Leaderless Jihad: Terror Networks in the Twenty-First Century*. University of Pennsylvania Press. Philadelphia. Pgs. 66-67. A CTC survey study of Guantanamo detainees also found that association with another member of al Qaeda was a better predictor of joining the group than believing in the ideology of hirabah.
- 153 Interested readers might consult social psychological literatures on ‘group think,’ ‘unpopular norms,’ ‘norm falsification,’ ‘social proof’ and ‘peer pressure’ to read a more complete explanation of the group processes whereby faulty ideas can be made to seem correct.
- 154 Lines, Andy. 2001. “War on Terror: Bin Laden Army: 11,000 Terror Agents Set to Strike; Sleepers are in 60 Countries.” *The Mirror*. New York, NY. September 24, 2001.
- 155 Persky, Anna. 2005. “FBI Can’t Find Sleep Cells.” *FOX News*. March 10. <http://www.foxnews.com/story/0,2933,149999,00.html>
- 156 A fourth attempted attack, in which al Qaeda in the Arabian Peninsula’s operatives attempted to bomb synagogues in Chicago with printer-cartridge IEDs, was interdicted thanks to the cooperation of international intelligence agencies.
- 157 Keller, Bill. 2002. “Nuclear Nightmares.” *The New York Times Magazine*. May 26.
- 158 Mueller, John. 2008, “The Atomic Terrorist: Assessing the Likelihood.” *Prepared for presentation at the Program on International Security Policy, University of Chicago*. January 15. Pgs. 1-2.
- 159 The notion that 25 terrorist organizations have precisely the same probability of developing WMDs is rather odd given that developing such weapons does not proceed according to the logic of a lottery or game of chance. Furthermore, assuming that the probability of success is the same from year to year presumes not only that terrorist weapons developers experience identical conditions from year to year, but also that they are repeating the same process each year with the same probability of success. Pegging that



probability at 1/100 may seem conservative to some readers, but the experiences of determined and far better resourced state-led weapons programs show otherwise. Instead of guessing at probabilities and using mathematical hand-waving, analysts might look to the history of weapons development to better assess the immensity of the scale of the challenge, not to mention the multiple low probability events that must be achieved along the way, failure at any of which will dash all prospect of success.

- ¹⁶⁰ Larson, Eric and John Evans. 2001. *Preparing the U.S. Army for Homeland Security: Concepts, Issues, and Options*. Arroyo Center. Page 54.
- ¹⁶¹ Usage of the term ‘weapon of mass destruction’ has not been formalized, but has often been related to the death tolls the weapons can produce. For the purposes of this paper, we will consider a WMD any weapon that kills more than 3000 people. The FBI and DOJ have been keen to charge people who would use even small bombs only capable of killing dozens – Zazi, Abdulmutallab, and Shazad among them – with attempted use of ‘weapons of mass destruction.’ We reject this usage as a trivialization of a term that, in theory, references a category including thermonuclear weapons capable of incinerating millions at a time.
- ¹⁶² U.S. District Court, Southern District of New York, *United States of America vs. Osama Bin Laden: Testimony of Jamal Ahmad al-Fadl*, Feb 6-13, 2001. Pgs. 291, 366, 524-26.
- ¹⁶³ Time Staff. 1999. “Wrath of God.” *Time*. January 11. <http://www.time.com/time/world/article/0,8599,2054517,00.html>
- ¹⁶⁴ Al Masri. 2004. *The Story of the Arab Afghans*. Asharq Alawsat. Cited in: Salama, Sammy, and Lydia Hansell. 2005. “Does Intent Equal Capability?: Al-Qaeda and Weapons of Mass Destruction.” *Nonproliferation Review*. Vol. 12, No. 3. November 2005. Pg. 626.
- ¹⁶⁵ Louise Richardson catalogues these, here: Richardson, Louise. 2006. *What Terrorists Want*. Random House. New York. Pgs. 160-162.
- ¹⁶⁶ Public interviews with Bin Laden and Zawahiri often included dubious bluffs later undermined by events or the more candid assessments of their associates. When Bin Laden was asked In an October 2001 interview to speak about Western reports of his chemical and nuclear weapons development, the following exchange took place:
Osama Bin Laden: “I heard the speech of American President Bush yesterday [Oct 7]. He was scaring the European countries that Osama wanted to attack with weapons of mass destruction. I wish to declare that if America used chemical or nuclear weapons against us, then we may retort with chemical and nuclear weapons. We have the weapons as deterrent.”
Hamid Mir: “Where did you get these weapons from?”
Osama Bin Laden: “Go to the next question.”

In the same interview Bin Laden’s partner, Ayman al Zawahiri, stretched the boundaries of credulity, claiming that,

“If you have \$30 million, go to the black market in central Asia, contact any disgruntled Soviet scientist, and a lot of dozens of smart briefcase bombs are available. They have contacted us, we sent our people to Moscow to Tashkent to other central Asian states, and they negotiated and we purchased some suitcase bombs.”

Here Zawahiri pretends (1) that there is a nuclear bonanza across Central Asia (that other nuclear-aspiring governments and entities have somehow failed to exploit) (2) that suitcase bombs are even viable a decade after their construction and several years after their shelf-life has expired and (3) that al Qaeda had multiple functioning bombs and chose not to use even one as a deterrent to the NATO-led invasion of Afghanistan in 2001. Somehow,

this flight of fancy is still reported as credible intelligence in some circles.

Later statements by al Qaeda journeyman, writer, and strategist Setmariam and leader of al Qaeda in Iraq, Abu Musab al-Zarqawi, actually presume the falsehood of Bin Laden’s and Zawahiri’s statements. Setmariam wrote on a jihadist website in late 2004 that a WMD attack on U.S. territory was:

“*eventually* possible and has now become necessary. [An] option [is] to destroy the United States by means of decisive strategic operations with weapons of mass destruction including nuclear, chemical, or biological weapons *if* mujahidin are able to obtain them...” (italics added). (See Cruikshank, Paul and Mohannad Hage Ali. 2007. “Abu Musab Al Suri: Architect of the New al Qaeda.” *Studies in Conflict and Terrorism*. Vol. 30. Pg. 7.

The leader of al Tawhid wal Jihad, Abu Musab al-Zarqawi (who later adopted the brand name “Al Qaeda in Iraq” for his Iraqi Sunni insurgency) was perhaps too candid in an April 2004 audiotape denying his involvement in an alleged chemical bombing plot in Amman, Jordan:

“If we had such a bomb – and we ask God that we have such a bomb soon – we would not hesitate for a moment to strike Israeli towns, such as Eilat, Tel Aviv and others.”
http://news.bbc.co.uk/2/hi/middle_east/3672891.stm

- ¹⁶⁷ IAEA Staff. 2008. “An Atomic Detective’s Essential Kit: Nuclear Forensics.” July 22. <http://www.iaea.org/newscenter/news/2008/forensicskit.html>
- ¹⁶⁸ Talmadge, Caitlin. 2007. “Deterring a Nuclear 9/11.” *The Washington Quarterly*. Spring. http://www.twq.com/07spring/docs/07spring_talmadge.pdf
- ¹⁶⁹ The critical mass needed for a very simple gun-type 100% enriched Uranium nuclear bomb is 52kg, about 115lbs. However, a more complex gun-type design encasing one portion of the uranium in a dense reflector material (like Uranium 238 or Beryllium) to reflect neutrons back into the HEU could create a more efficient chain reaction and push the critical mass down by half or so to roughly 25kg or 55lbs. Since HEU is rarely 100% enriched and the design and construction of a bomb by a non-state group under security pressure is likely to be sub-optimal, we estimate that a terrorist group would have to acquire at least a hundred pounds of HEU to have any hope of creating a blast on the scale of Hiroshima’s “Little Boy” bomb – equivalent to 17 kilotons of TNT.
- ¹⁷⁰ This judgment reflects a synthesis of conclusions from the following sources: Bunn, Matthew and Anthony Weir. 2006. “Terrorist Nuclear Weapon Construction: How Difficult?” *The ANNALS of the American Academy of Political and Social Science*. Vol. 607; Mark et al. “Can Terrorists Build Nuclear Weapons?” *Nuclear Control Institute*. <http://www.nci.org/k-m/makecab.htm>; Union of Concerned Scientists. 2004. “Preventing Nuclear Terrorism: Fact Sheet.” http://www.ucsusa.org/assets/documents/nwgs/nuclear_terrorism-fis-site_materials.pdf; Federation of American Scientists. “Nuclear Weapon Design.” <http://www.fas.org/nuke/intro/nuke/design.htm>; Folland, Andrew. 2008. “How Much Uranium.” <http://nuclearmangos.blogspot.com/2008/07/how-much-uranium.html>
- ¹⁷¹ Mueller cites several authors on this point, including those most concerned about the threat of nuclear terrorism: Milhollin, Gary. 2002. “Can Terrorists Get the Bomb?” *Commentary*. February. Allison, Graham. 2004. *Nuclear Terrorism: The Ultimate Preventable Catastrophe*. Times Books. New York; Cameron, Gavin. 2004. “Weapons of Mass Destruction Terrorism Research: Past and Future.” In *Terrorism: Trends, Achievements and Failures*. Editor: Andres Silke. Frank Cass Publishing.



- New York. Pg. 83;
- Bunn, Matthew, and Anthony Weir. 2006. "Terrorist Nuclear Weapon Construction: How Difficult?" *Annals of the American Academy of Political and Social Science*. September. Pgs. 136-137;
- Langewiesche, William. 2007. *The Atomic Bazaar: The Rise of the Nuclear Poor*. New York: Farrar, Strauss Giroux. New York. Pg. 20; Perry, William J., Ashton B. Carter, and Michael M. May. 2007. "After the Bomb." *New York Times*. June 12.
- 172 We do not review the technical hurdles of nuclear weapon design here. But, it may suffice to note that building more than a very simple nuclear device would require terrorists to recruit nuclear scientists who would rather risk their lives and freedom working for poorly resourced terrorists than offer their services to any of several nuclear or nuclear-aspiring states.
- 173 This judgment reflects a synthesis of conclusions from several sources, including: Bunn, Matthew and Anthony Weir. 2006. "Terrorist Nuclear Weapon Construction: How Difficult?" *The ANNALS of the American Academy of Political and Social Science*. Vol. 607; Mark et al. "Can Terrorists Build Nuclear Weapons?" *Nuclear Control Institute*. <http://www.nci.org/k-m/makecab.htm>; Union of Concerned Scientists. 2004. "Preventing Nuclear Terrorism: Fact Sheet." http://www.ucsusa.org/assets/documents/nwgs/nuclear_terrorism-fissile_materials.pdf; Federation of American Scientists. "Nuclear Weapon Design." <http://www.fas.org/nuke/intro/nuke/design.htm>; Foland, Andrew. 2008. "How Much Uranium." <http://nuclearmangos.blogspot.com/2008/07/how-much-uranium.html>
- 174 Gellman, Barton. 2011 "Is the FBI Up to the Job 10 Years After 9/11" *Time*. May 12, 2011. <http://www.time.com/time/nation/article/0,8599,2067995,00.html#ixzz1PHtyE43C>
- 175 For more on radioactive dosing and the effects of dirty bombs see: Miller, William and Robert Lindsay. Editors Ghosh, Tushar et al. 2010. "Chapter 16: Nuclear Terrorism: Dose and Biological Effects." *Science and Technology of Terrorism and Counterterrorism*. 2nd Edition. CRC Press. Boca Raton.
- 176 The evidence of terrorist's intentions re: attacking nuclear facilities is mixed. According to an al Jazeera reporter speaking on 60 minutes II in April 2003, Khalid Sheikh Mohammed removed nuclear facilities from al Qaeda's list of targets citing worry that "it might get out of hand." <http://www.energybulletin.net/node/1243>
- 177 On ability to withstand commercial airliner attack, see expert peer-reviewed study http://www.nrc.gov/filefolder/EPRI_Nuclear_Plant_Structural_Study_2002.pdf. On nuclear facilities continually improving security against teams of attackers, see Stone, Daniel. 2011. "Flirting with Disaster." *Newsweek*. January 4.
- 178 For security reasons, we have chosen not to get too specific about some of these details.
- 179 Ghosh, Tushar et al. 2010. *Science and Technology of Terrorism and Counterterrorism*. 2nd Edition. CRC Press. Boca Raton. Chapters 6, 7, and 23.
- 180 Mowatt-Larssen, Rolf. 2010. "Al Qaeda Weapons of Mass Destruction Threat: Hype or Reality?" *Belfer Center, Harvard University*. Pg. 6.
- 181 Warrick, Joby. 2006. "Suspect and a Setback in Al-Qaeda Anthrax Case; Scientist with Ties to Group Goes Free." *Washington Post*. Pg. A1. October 31.
- 182 Leitenberg, Milton. 2005. "Assessing the Biological Weapons and Bioterrorism Threat." *Army War College, Strategic Studies Institute*. Pgs. 46-48. <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA442204&Location=U2&doc=GetTRDoc.pdf>
- 183 United States Department of Justice. 2010. "Amerithrax Investigative Summary." Washington, DC. February 19. <http://www.justice.gov/amerithrax/docs/amx-investigative-summary.pdf>
- 184 Reports that a North African terrorist cell lost 40 members to bubonic or pneumonic plague – <http://www.dailymail.co.uk/news/article-1121842/Al-Qaeda-hit-Black-Death-fear-medieval-plague-kills-40-terrorists-training-camp.html> — were quickly seized upon as evidence of bioweapons development even though the plague kills 3,000 people a year in the developing world. Even if this particular cell was attempting weaponization, the incident indicates their incompetence and the difficulty of taming the weapons, not that such weapons threaten Westerners.
- 185 See also this CNS testimony before the House Subcommittee on National Security, Veterans Affairs, and International Relations: <http://cns.miis.edu/testimony/parach.htm>
- 186 Salama and Hansell cite two cases in which terrorist cells attempted and failed to weaponize small amounts of ricin and cyanide. They conclude, however, that "difficulties in weaponization mean that such substances are suitable only for targeted assassinations, as opposed to mass casualty attacks." Salama and Hansell. 2005. "Does Intent Equal Capability?" *Nonproliferation Review*. Vol. 12, No 3, November. Monterey, CA. Pgs. 622-623.
- 187 See especially Center for Terrorism and Intelligence Studies. 2006. "The Jericho Option: Al-Qa'ida and Attacks on Critical Infrastructure." Lawrence Livermore National Laboratory. June 2006. For an article offering a strong counterpoint, see Toft, Peter, Arash Duero, and Aruna Bieliauskas. 2010. "Terrorist Targeting and Energy Security." *Energy Policy*. Vol. 38.
- 188 The only plots coming close to the definition of infrastructure attacks, the Brooklyn bridge plot and the plan to ignite gas lines under JFK airport, were infeasible.
- 189 Such attacks may even result in increased community solidarity as frequently occurs in cities experiencing electricity blackouts, flooding, or other mid-grade disruptions.
- 190 See FBI Congressional testimony that outlined the significant hurdles to water supply attacks as early as October 2001. <http://www.fbi.gov/news/testimony/terrorism-arc-americas-water-resources-and-environment-at-risk>.
- 191 This might appear to contradict an al Qaeda strategy of provoking occupations of the Middle East by foreign countries, but that strategy does not require that any or every country occupy the Middle East at the same time. Attacking Madrid reduced western troop levels in Iraq, weakening the impression that the US occupation was broadly supported by the international community.
- 192 Cronin, Audrey Kurth. 2009. *How Terrorism Ends*. Princeton University Press. Princeton, New Jersey. Pg. 2.
- 193 Hoffman, Bruce. 2006. *Inside Terrorism*. Columbia University Press. New York. Pg. 281.





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